CENSUS OF INDIA 1961

VOLUME I

INDIA



PART IV-A (ii)

REPORT ON INDUSTRIAL ESTABLISHMENTS

A. MITRA
of the Indian Civil Service
Registrar General and ex-officio Census Commissioner for India



CENSUS OF INDIA 1961—UNION PUBLICATIONS

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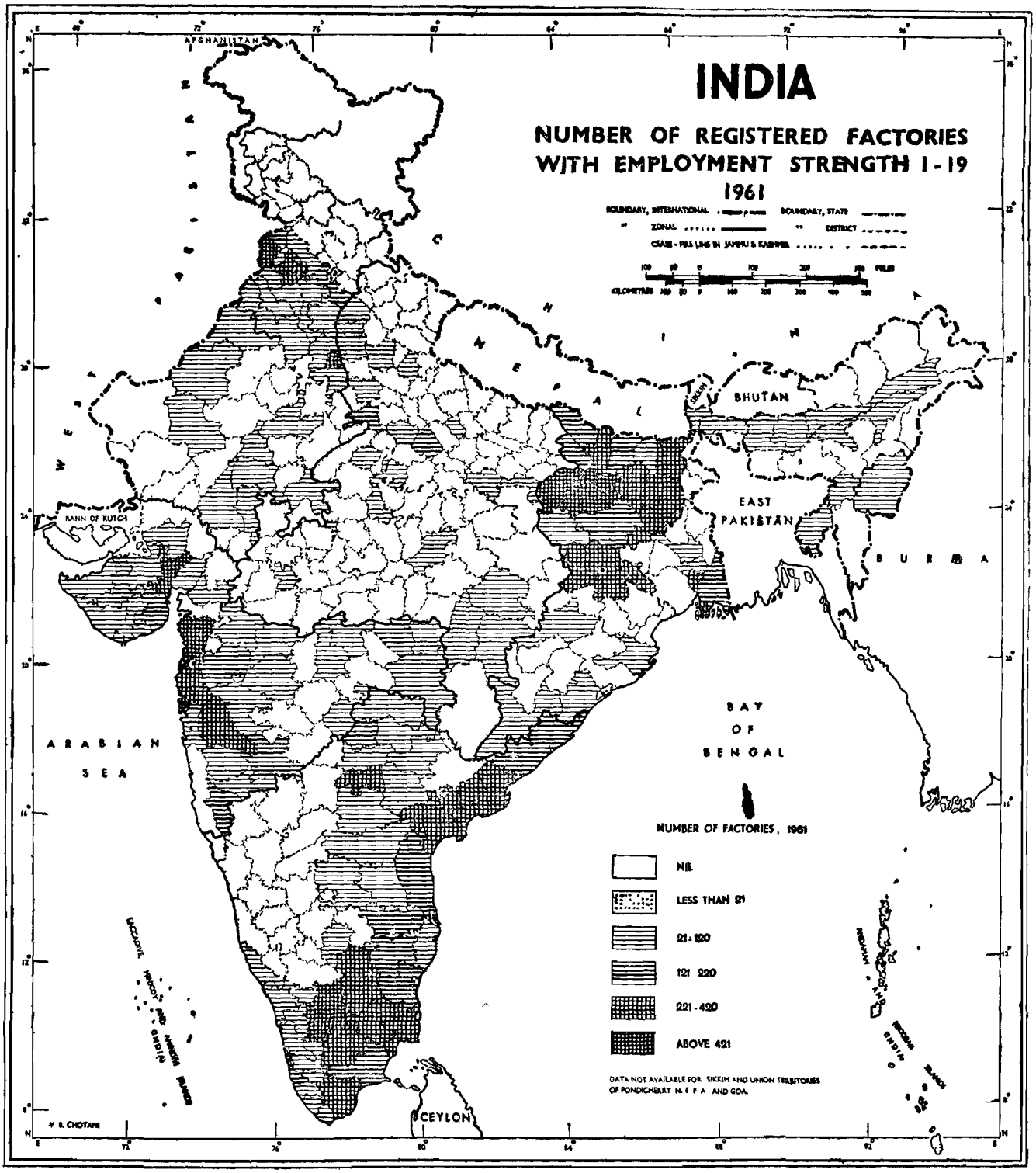
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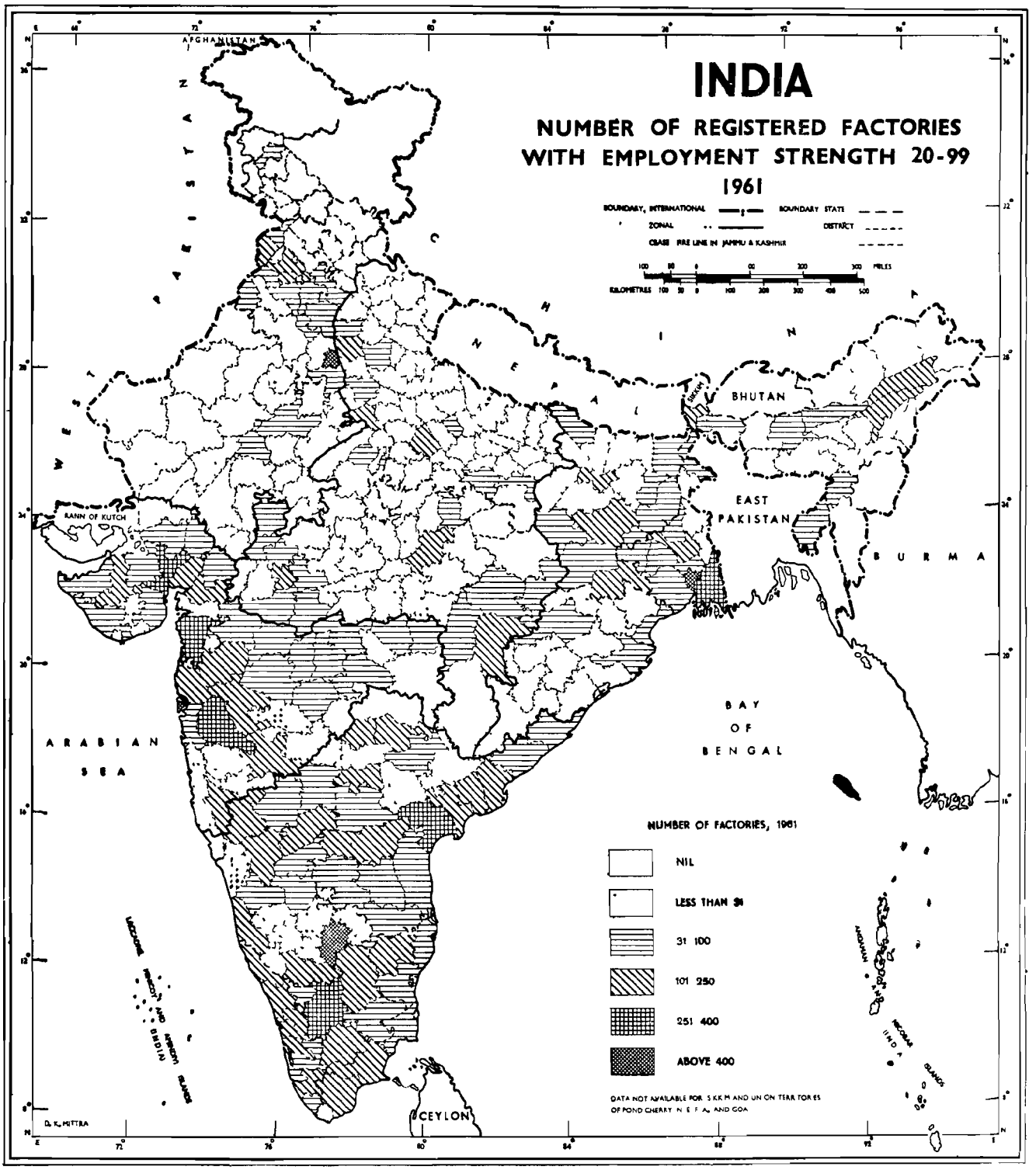
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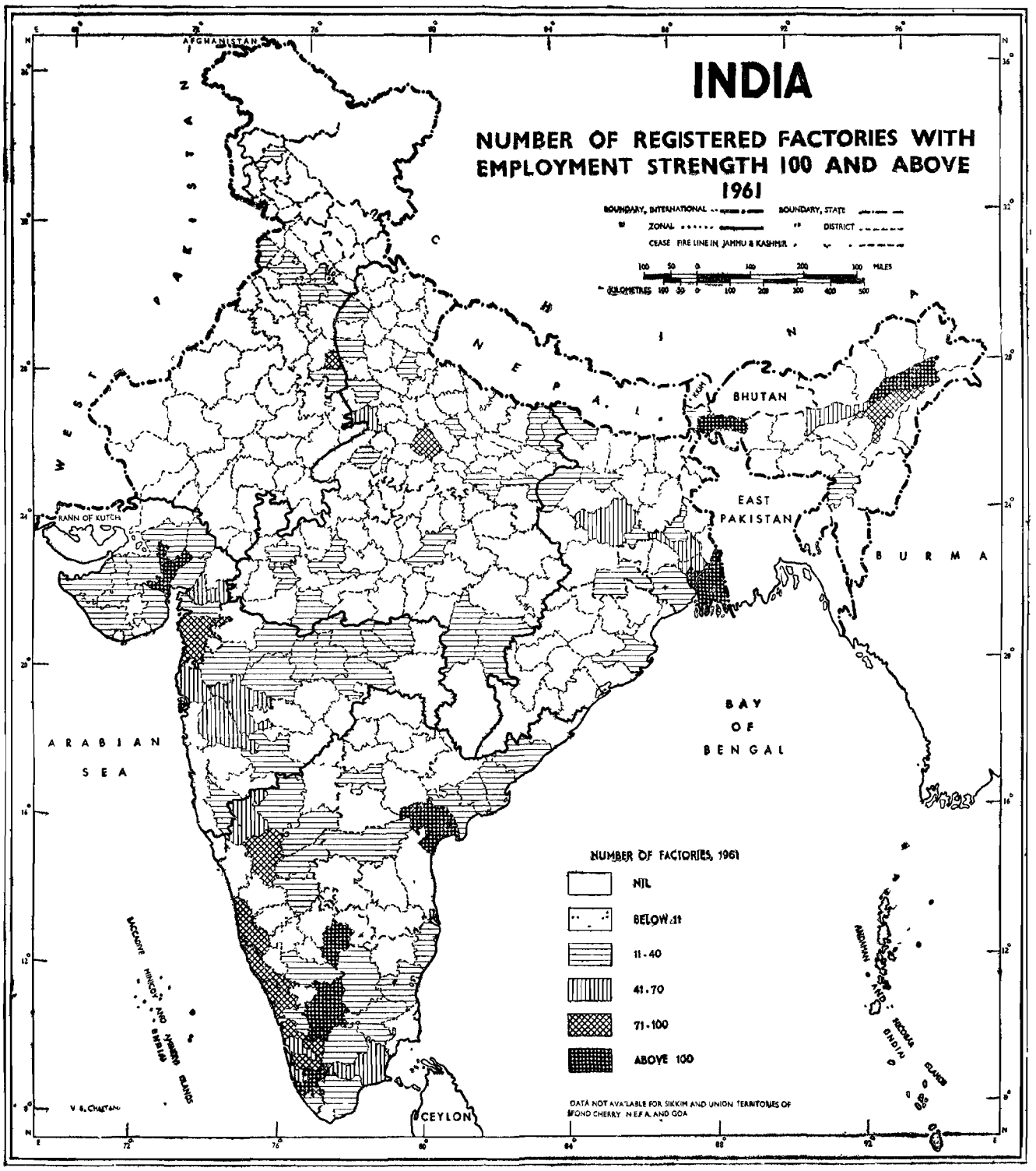
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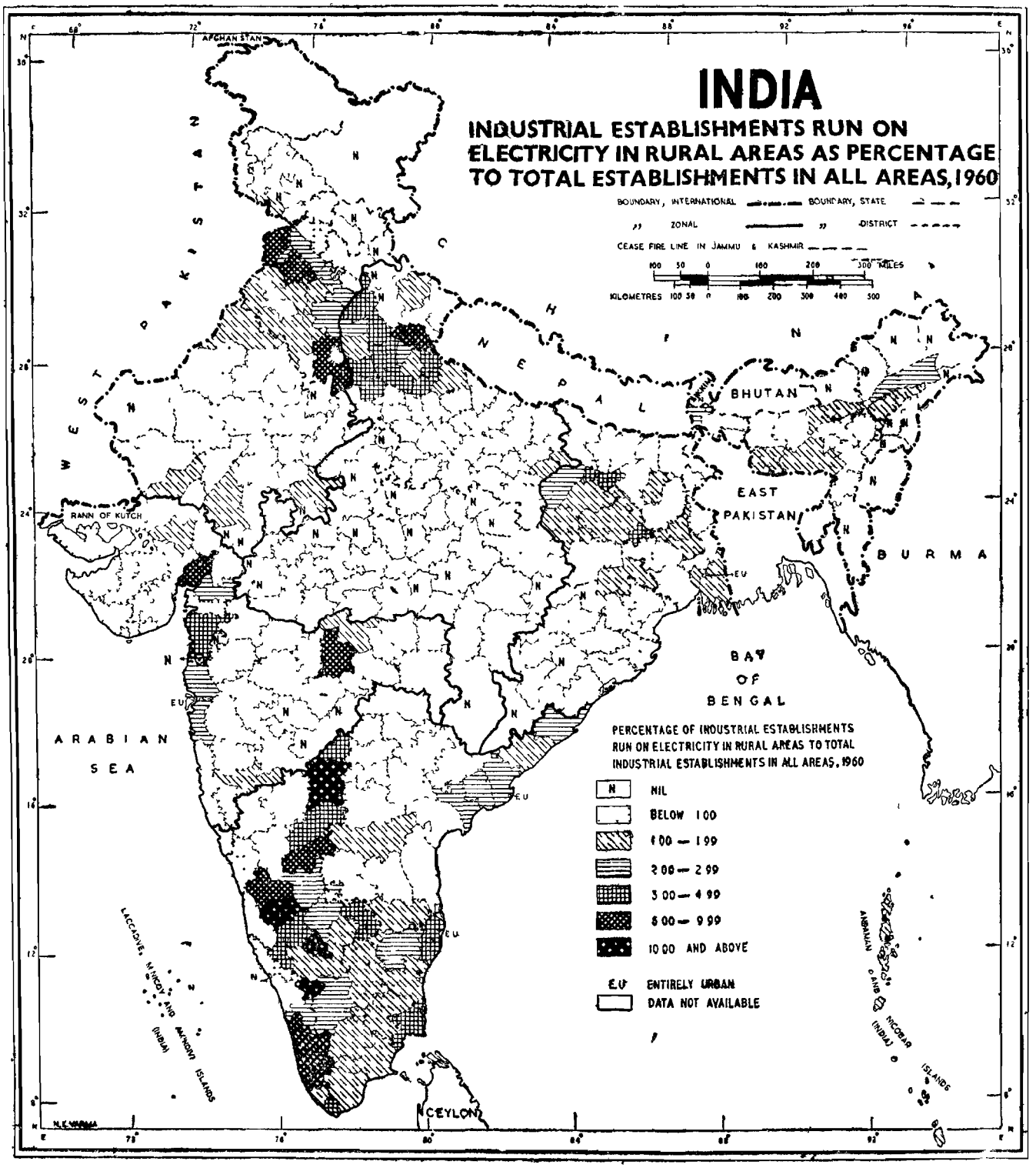
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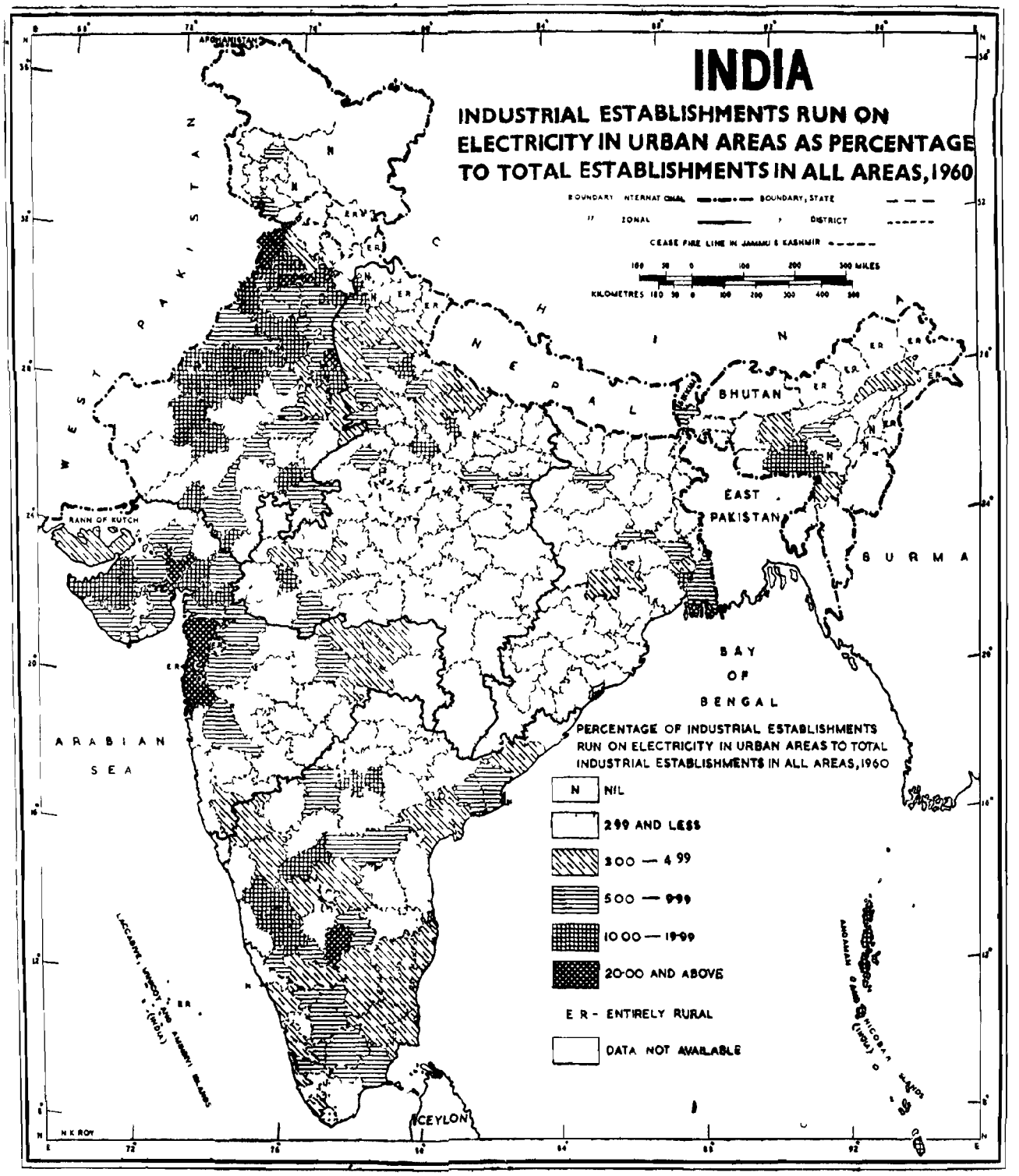
MAPS & CHARTS

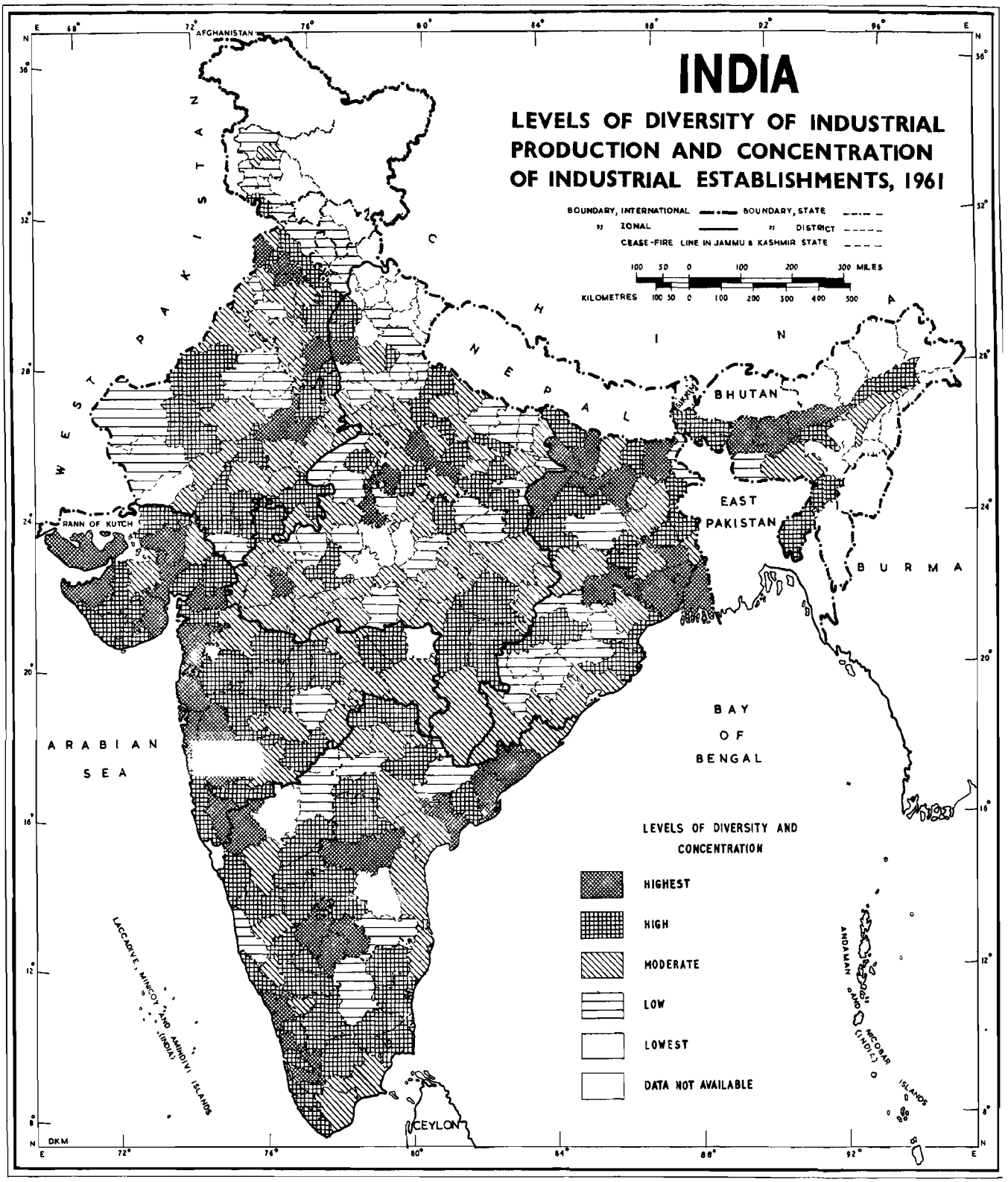

INDIA
NUMBER OF REGISTERED FACTORIES WITH EMPLOYMENT STRENGTH 1-19
1961
BOUNDARY, INTERNATIONAL
BOUNDARY, STATE
ZONAL
DISTRICT
CEASE-FIRE LINE IN JAMMU & KASHMIR
KILOMETRES
AFGHANISTAN
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
RANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
LACCADIVE, MINICOY AND AMINDIVI ISLANDS
ANDAMAN AND NICOBAR ISLANDS
NUMBER OF FACTORIES, 1961
NIL
LESS THAN 21
21-120
121-220
221-420
ABOVE 421
DATA NOT AVAILABLE FOR SIKKIM AND UNION TERRITORIES OF PONDICHERRY, N.E.F.A. AND GOA.


INDIA
NUMBER OF REGISTERED FACTORIES
WITH EMPLOYMENT STRENGTH 20-99
1961
BOUNDARY, INTERNATIONAL
BOUNDARY STATE
ZONAL
DISTRICT
CEASE FIRE LINE IN JAMMU & KASHMIR
KILOMETRES
MILES
AFGHANISTAN
CHINA
NEPAL
BHUTAN
SIKKIM
EAST PAKISTAN
BURMA
KANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
LACCADIVE, MINICOY AND AMINDIVI ISLANDS
ANDAMAN AND NICOBAR ISLANDS
NUMBER OF FACTORIES, 1961
NIL
LESS THAN 31
31 100
101 250
251 400
ABOVE 400
DATA NOT AVAILABLE FOR SIKKIM AND UNION TERRITORIES OF PONDICHERRY, N.E.F.A. AND GOA
D. K. MITTRA


INDIA
NUMBER OF REGISTERED FACTORIES WITH EMPLOYMENT STRENGTH 100 AND ABOVE
1961
BOUNDARY, INTERNATIONAL
BOUNDARY, STATE
ZONAL
DISTRICT
CEASE FIRE LINE IN JAMMU & KASHMIR
KILOMETRES
MILES
AFGHANISTAN
WEST PAKISTAN
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
RANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
LACCADIVE MINICOY AND AMINDIVI ISLANDS
ANDAMAN AND NICOBAR ISLANDS
V. S. CHAITANI
NUMBER OF FACTORIES, 1961
NIL
BELOW 11
11 - 40
41 - 70
71 - 100
ABOVE 100
DATA NOT AVAILABLE FOR SIKKIM AND UNION TERRITORIES OF PONDICHERRY N.E.F.A. AND GOA

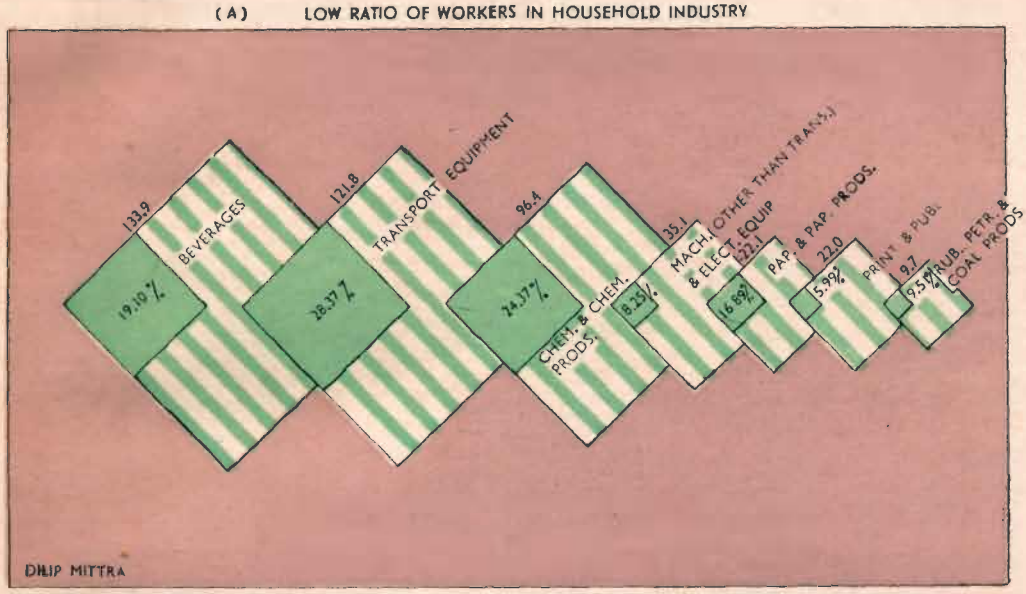

INDIA
INDUSTRIAL ESTABLISHMENTS RUN ON ELECTRICITY IN RURAL AREAS AS PERCENTAGE TO TOTAL ESTABLISHMENTS IN ALL AREAS, 1960
BOUNDARY, INTERNATIONAL
BOUNDARY, STATE
ZONAL
DISTRICT
CEASE FIRE LINE IN JAMMU & KASHMIR
MILES
KILOMETRES
AFGHANISTAN
WEST PAKISTAN
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
RANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
LACCADIVE, MINICOY AND AMINDIVI ISLANDS (INDIA)
ANDAMAN AND NICOBAR ISLANDS (INDIA)
PERCENTAGE OF INDUSTRIAL ESTABLISHMENTS RUN ON ELECTRICITY IN RURAL AREAS TO TOTAL INDUSTRIAL ESTABLISHMENTS IN ALL AREAS, 1960
N NIL
BELOW 1 00
1 00 — 1 99
2 00 — 2 99
3 00 — 4 99
5 00 — 9 99
10 00 AND ABOVE
E.U ENTIRELY URBAN
DATA NOT AVAILABLE


INDIA
INDUSTRIAL ESTABLISHMENTS RUN ON ELECTRICITY IN URBAN AREAS AS PERCENTAGE TO TOTAL ESTABLISHMENTS IN ALL AREAS, 1960
BOUNDARY, INTERNATIONAL
BOUNDARY, STATE
ZONAL
DISTRICT
CEASE FIRE LINE IN JAMMU & KASHMIR
KILOMETRES
MILES
AFGHANISTAN
PAKISTAN
WEST
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
RANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
PERCENTAGE OF INDUSTRIAL ESTABLISHMENTS RUN ON ELECTRICITY IN URBAN AREAS TO TOTAL INDUSTRIAL ESTABLISHMENTS IN ALL AREAS, 1960
N NIL
2·99 AND LESS
3·00 — 4·99
5·00 — 9·99
10·00 — 19·99
20·00 AND ABOVE
E R - ENTIRELY RURAL
DATA NOT AVAILABLE
N.K. ROY


INDIA
LEVELS OF DIVERSITY OF INDUSTRIAL PRODUCTION AND CONCENTRATION OF INDUSTRIAL ESTABLISHMENTS, 1961
BOUNDARY, INTERNATIONAL
BOUNDARY, STATE
ZONAL
DISTRICT
CEASE-FIRE LINE IN JAMMU & KASHMIR STATE
100 50 0 100 200 300 MILES
KILOMETRES 100 50 0 100 200 300 400 500
AFGHANISTAN
WEST PAKISTAN
CHINA
NEPAL
BHUTAN
EAST PAKISTAN
BURMA
RANN OF KUTCH
ARABIAN SEA
BAY OF BENGAL
CEYLON
LACCADIVE, MINICOY AND AMINDIVI ISLANDS (INDIA)
ANDAMAN AND NICOBAR ISLANDS (INDIA)
LEVELS OF DIVERSITY AND CONCENTRATION
HIGHEST
HIGH
MODERATE
LOW
LOWEST
DATA NOT AVAILABLE
DKM

INDUSTRIES IN RURAL INDIA WHICH ARE MORE IN THE ORGANISED SECTOR, HAVE LOW RATIOS OF WORKERS AT HOUSEHOLD INDUSTRY AND HIGH RATIO OF ELECTRICITY USE 1960-61

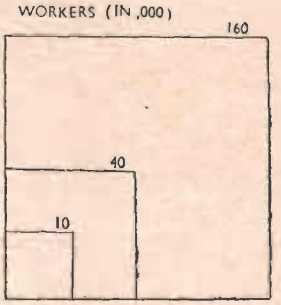
(A) LOW RATIO OF WORKERS IN HOUSEHOLD INDUSTRY



WORKERS AT HOUSEHOLD INDUSTRY

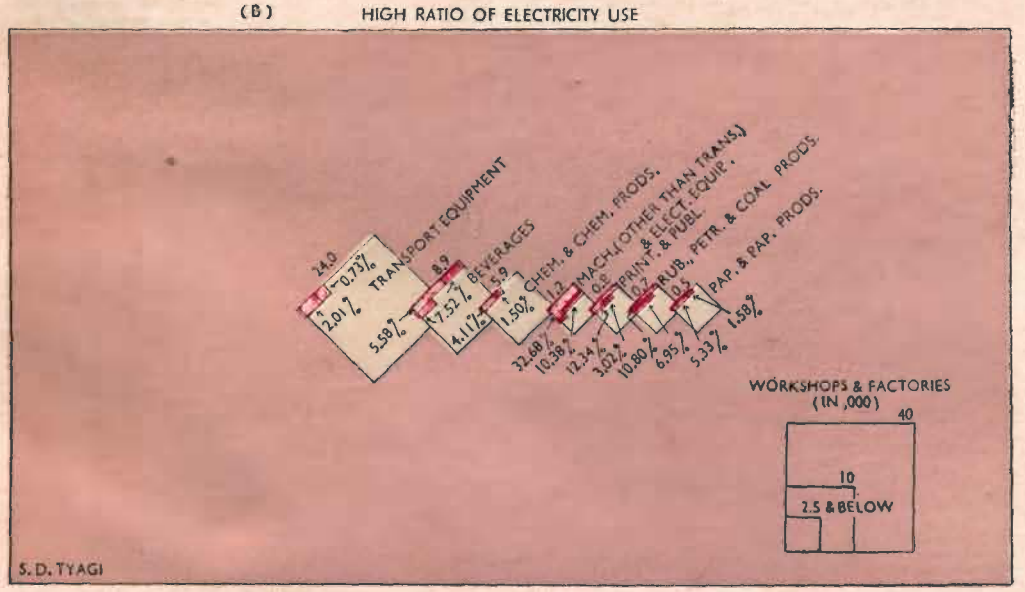
WORKERS IN INDUSTRIES OTHER THAN HOUSEHOLD INDUSTRY

WORKERS (IN ,000)



FIGURES SHOWN ABOVE THE SQUARES ARE THE TOTAL NUMBER OF WORKERS (IN ,000) IN INDUSTRIES IN RURAL INDIA

(B) HIGH RATIO OF ELECTRICITY USE



NONELECTRIFIED INDUSTRIES

ESTABLISHMENTS USING

LIQUID FUEL

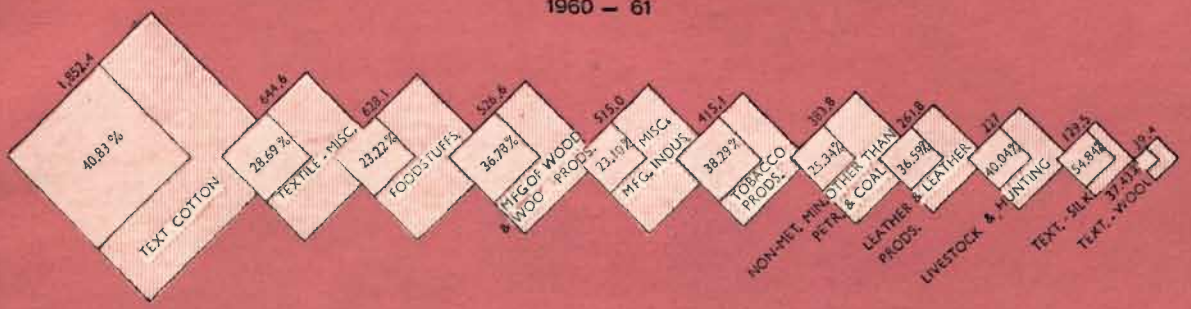
ELECTRICITY

FIGURES SHOWN ABOVE THE SQUARES ARE THE TOTAL NUMBER OF FACTORIES & WORKSHOPS (IN ,000) IN RURAL INDIA

Source Of Data - Statement . 1. 3 Of Report On Industrial Establishments

INDUSTRIES IN URBAN INDIA IN WHICH THE UNORGANISED SMALL ESTABLISHMENTS SECTOR IS LARGE (PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY IS ABOVE 20%)

1960 – 61



WORKERS IN INDUSTRIES OTHER THAN HOUSEHOLD INDUSTRY

WORKERS AT HOUSEHOLD INDUSTRY

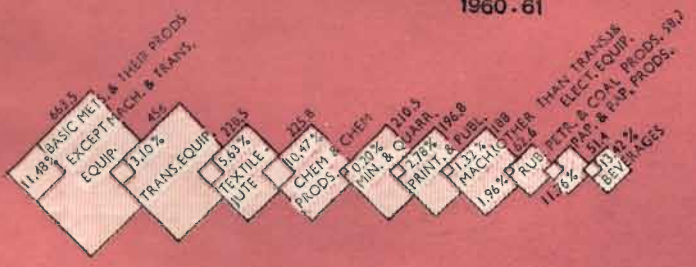
FIGURES ABOVE THE SQUARES ARE THE TOTAL NUMBER OF WORKERS IN ('000)

D. K. MITTRA

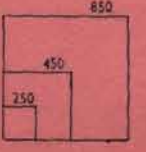
Source Of Data - Statement 1.4 Of Report On Industrial Establishments

INDUSTRIES IN URBAN INDIA WHICH ARE MORE IN THE ORGANISED SECTOR, HAVING LOW RATIOS (0 – 20 %) OF WORKERS AT HOUSEHOLD INDUSTRY

1960 - 61



NUMBER OF WORKERS (IN ,000)



WORKERS IN INDUSTRIES OTHER THAN HOUSEHOLD INDUSTRY

WORKERS AT HOUSEHOLD INDUSTRY

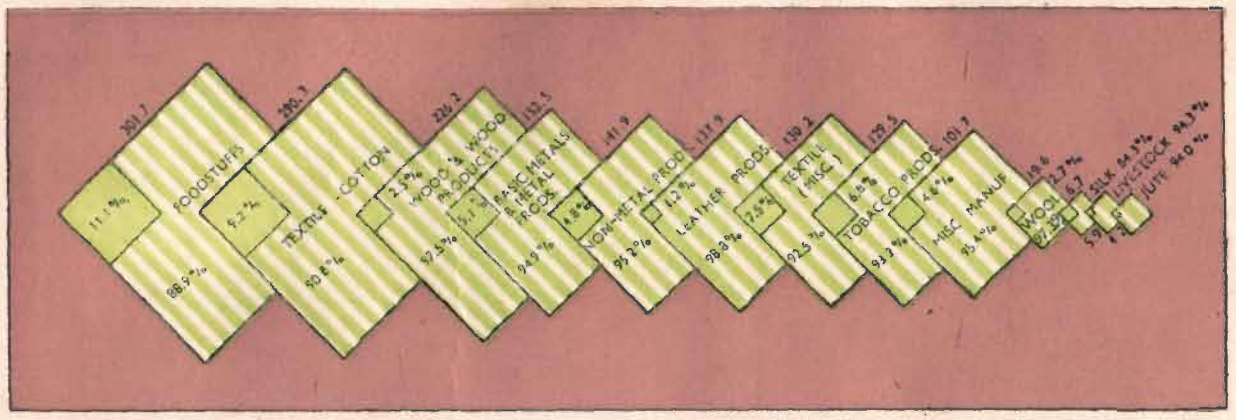
FIGURES ABOVE THE SQUARES ARE THE TOTAL NUMBER OF WORKERS IN (,000)

Source Of Data - Statement 1.5 Of Report On Industrial Establishments

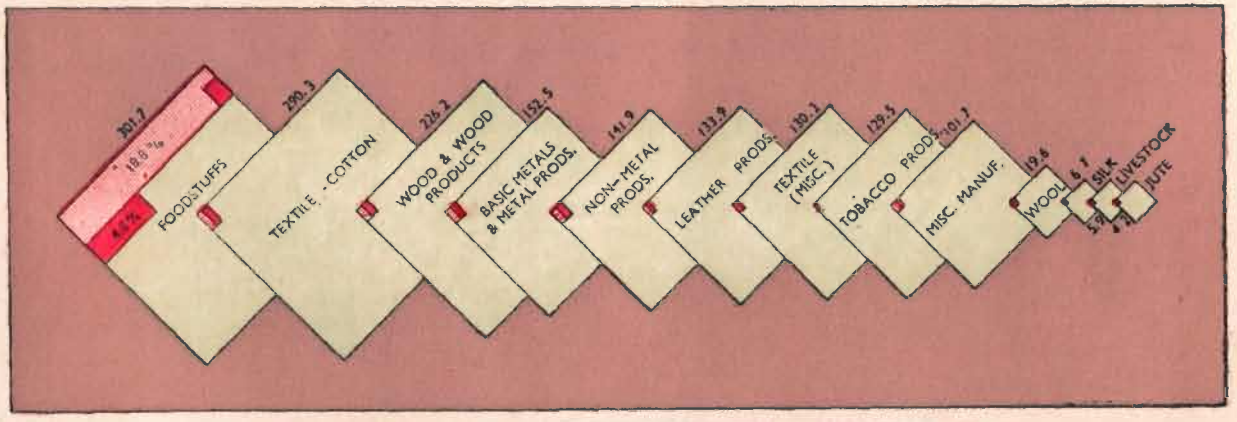
P. D. MOHOD

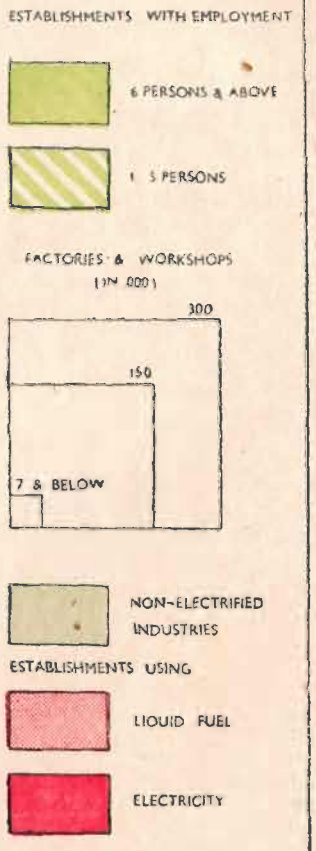
INDUSTRIES IN UNORGANISED SECTOR IN RURAL INDIA WHERE THE PROPORTION OF SMALL SCALE ESTABLISHMENTS IS LARGE AND USE OF ELECTRICITY IS SMALL 1960 - 61

(A) PROPORTION OF INDUSTRIAL ESTABLISHMENTS IN THE UNORGANISED SECTOR WITH EMPLOYMENT 1 - 5, 6 & ABOVE PERSONS



(B) PROPORTION OF INDUSTRIAL ESTABLISHMENTS IN THE UNORGANISED SECTOR USING ELECTRICITY AND LIQUID FUEL



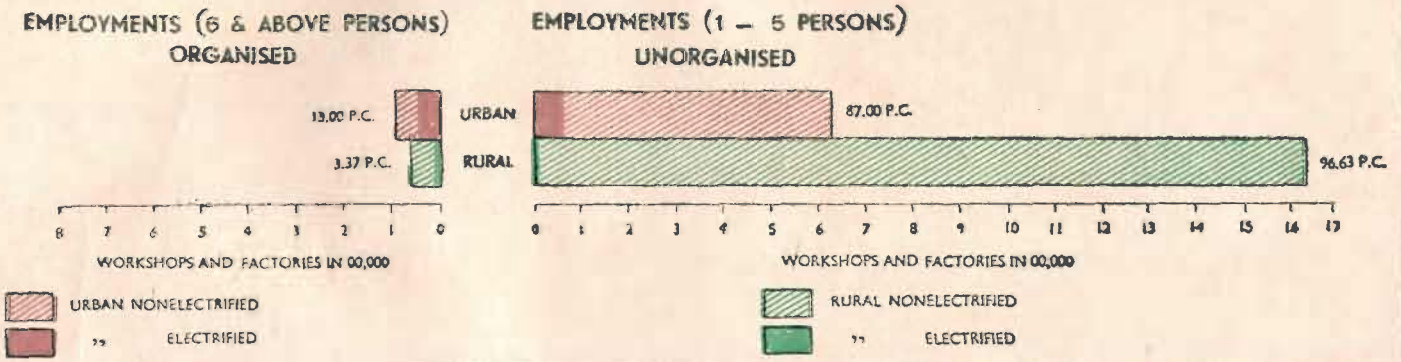


FIGURES SHOWN ABOVE THE SQUARES ARE THE TOTAL NUMBER OF INDUSTRIAL ESTABLISHMENTS IN (.000)

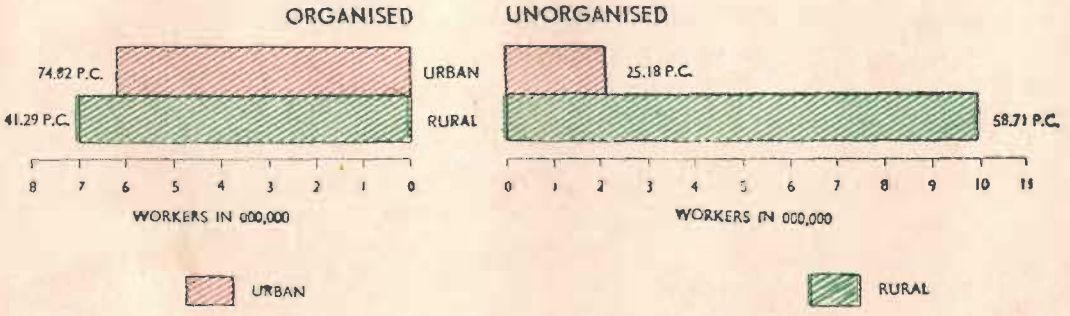
Source Of Data - Statement 1.2 Of Report On Industrial Establishments

DILIP MITTRA

DISTRIBUTION OF WORKSHOPS AND FACTORIES PROCESSING PRIMARY AND SECONDARY PRODUCTS IN ORGANISED SECTORS WITH EMPLOYMENTS 6 & ABOVE AND IN UNORGANISED SECTORS WITH EMPLOYMENTS 1-5 PERSONS IN RURAL AND URBAN AREAS, 1960-61



DISTRIBUTION OF WORKERS IN WORKSHOPS AND FACTORIES PROCESSING PRIMARY AND SECONDARY PRODUCTS IN ORGANISED AND UNORGANISED SECTORS IN RURAL AND URBAN AREAS. 1960-61



DILIP MITTRA

SOURCE OF DATA - STATEMENT I.1 OF REPORT ON INDUSTRIAL ESTABLISHMENTS

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ASOK MITRA
Registrar General
& ex-officio Census Commissioner for India

NEW DELHI
29 March 1964

CHAPTER I

THE ORGANISED AND UNORGANISED SECTORS OF WORKSHOPS AND FACTORIES IN INDIA

A. General Remarks

ONE MAY BEGIN by attempting an estimate of the number and proportion of workshops and factories in the organised and unorganised sectors, the number and proportion of workers in each and the major groups of industry which are more organised than the others. One may then proceed to employ the use of electricity in urban areas as an index of modernisation of tools, techniques and scale not only in the organised sector but in the unorganised sector as well because the use of power—electricity in the urban areas and either electricity or liquid fuel in the rural areas—can be regarded as an index of new tools, techniques and scale of production in the self or family-run enterprise also, which at once puts such a workshop on a different footing from self or family-run traditional enterprises working on solid fuel or other power or no power at all. Finally, one may take stock of the strength of organised and unorganised sectors in industries (a) which process primary products e.g. the major groups (i) 20, 21 and 22 (ii) 28 and 31 (iii) 34-35 and (b) those which process secondary products e.g. the major groups (i) 23, 24, 25, 26 and 27 (ii) 29 and 30 (iii) 36, 37, 38 and 39.

The total number of workshops and factories as listed in the 1960 Housing Census came to 2.40 million of which 0.71 million were in urban areas and 1.69 million in rural areas. The total number of workers engaged in production, repairs and servicing of goods in Industrial Divisions 0, 1, 2 & 3 returned in the population Census of 1961 came to 25.23 million of whom 8.29 million were in urban areas and 16.94 were in rural areas. Of the 2.40 million workshops and factories as many as 2.15 million (580,132 urban and 1.57 million rural) were single person or 2-5 persons establishments, that is, what one would generally recognise as the unorganised or self or family-run enterprise. Of the 25.23 million workers as many as 12.03 million were returned as working at household industry or the unorganised sector (2.09 million urban and 9.94 million rural).

Of a total of 0.71 million workshops or factories in urban areas only about 0.10 million or 14 per cent use electricity. Out of 580, 132 self or family-run enterprises in urban areas 61,721 or 10·64 per cent use electricity indicating an appreciable desire to modernise and make good in small family enterprises. Of a total of 1,686,195 rural workshops or factories only 20,504 units or a bare 1·22 per cent use electricity. Out of 1,569,877 rural workshops employing a limit of 5 persons (i.e., mainly self or family-run) only 15,279 or less than one per cent use electricity and another 55,428 or about 3·53 per cent use liquid fuel.

The broad all India results are summarised below :

STATEMENT I.1

Distribution of (a) *workshops and factories and* (b) *workers in* (i) *organised and* (ii) *unorganised sector, all India* 1960-61

	Total	Organised sector	Unorganised sector	Unorganised sector as percentage of total
Workshops and factories—urban	713,642	92,780	620,862*	87·00
Workshops and factories—rural	1,686,195	56,906	1,629,289*	96·63
Urban establishments using electricity ..	100,321	37,010	63,311*	63·11
Rural establishments using electricity.. ..	20,504	4,773	15,731*	76·72
Workers in urban areas	8,293,257	6,204,840	2,088,417	25·18
Workers in rural areas	16,934,622	6,991,952	9,942,670	58·71

*Includes establishments for which employment was not stated.

This statement brings out the leanness of the organised sector in workshops and factories but a better state of affairs so far as workers are concerned. It shows that 25·18 per cent of all workers working at household industry may be associated with as much as 87·00 per cent of all industrial workshops and factories in urban India, although it seems probable that a proportion of these workers work also in establishments employing more than 5 workers. The bulk of urban workers therefore work (1) in establishments employing more than 5 persons but less than 10 or 20 persons using no power and (2) in registered factories employing more than 10 persons with power. The majority of workshops of the second kind will be fairly large establishments employing an average of a little more than 46 workers per unit. In rural India 58·71 per cent of all workers in Divisions 0, 1, 2 & 3, work at household industry, a much larger proportion and population than in urban industries. This 58·71 per cent of rural workers who are obviously in the unorganised sector is engaged mostly in 1 person or 2-5 persons establishments which account for 96·63 per cent of all rural workshops and factories. Here again it is likely that a proportion of these workers in the unorganised sector work in establishments employing more than 5 persons. A comparatively large number of workers in rural areas—6,991,952—work in 56,906 rural establishments which works out at an average of 123 persons per workshop. Of these 56,906 rural establishments, again employing more than 5 persons, as few as 9,448 use either electricity (4,773) or liquid fuel (4,675). Of the 92,780 workshops and factories in the organised urban sector employing more than 5 persons, 37,010 use electricity.

B. The unorganised and organised sectors in rural India

This brief survey is confined to those major groups of industries which have a minimum of 1,000 workshops and factories in any particular minor group. It may be useful first to look for those industries which are even more unorganised than others—that is those in which (i) workshops employing up to 5 persons are in an overwhelming majority and (ii) the proportion of workshops and factories using electricity is small.

The following statement gives a list of industries in rural India in which the unorganised small establishments sector is large and the use of electricity low :

STATEMENT I.2

Industries in rural India in which the unorganised small establishment sector is large and the use of electricity low

I.S.I.C. Major Group	Description	Proportion of 1-5 persons establishments to total establishments	Proportion of establishments using electricity to total establishments	Proportion of establishments using liquid fuel to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5	6
04	Livestock and hunting ..	94·26	0·10	0·02	55·18
20	Foodstuffs	88·90	4·81	18·81	67·10
22	Tobacco products	93·22	0·07	0·02	71·85
23	Textile—Cotton	90·82	0·31	0·26	90·19
24	Textile—Jute	93·97	1·04	0·35	75·32
25	Textile—Wool	97·32	1·64	0·03	94·69
26	Textile—Silk	84·28	2·00	0·07	78·40
27	Textile—Miscellaneous ..	92·46	0·17	0·11	76·33
28	Wood and wood products ..	97·51	0·35	0·35	84·71
31	Leather and leather products	98·79	0·06	0·03	89·56
34-35	Non-metallic mineral products	95·22	0·40	0·33	67·15
36	Basic metals and metal products	94·85	0·43	0·41	72·92
39	Miscellaneous manufacturing industries	95·37	0·39	0·59	74·10

The above statement shows that in all major groups in which traditional industries are still strong the unorganised small sector is still very strident. Prohibition has reduced the number of breweries and distilleries in major group 21 which accounts for its absence from the statement. Were it not for the large number of indigenous millers, sugar making and oil-crushing workshops (minor groups 200, 202, 205), blacksmithy and brass and bell metal products (365, 369) and jewellery (393) shapes major groups 20, 36, 39 particularly 20 might have a fair chance of claiming a place in the organised sector. Major group 29 (paper and paper products) and 30 (printing), 32 (rubber, petroleum, coal and coal products), 33 (chemicals and chemical products), 37 (machinery excluding transport equipments) and 38 (transport machinery and equipments) are all in the modern sector and have (i) comparatively high ratios of electricity use and (ii) comparatively low ratios of workers at household industry.

STATEMENT I.3

Industries in rural India which are more in the organised sector, have low ratios of workers at household industry and high ratios of electricity use

I.S.I.C. Major Group	Description	Proportion of establishments employing 1-5 persons to total establishments	Proportion of establishments using		Proportion of workers at household industry to total workers
			Electricity to total establishments	Liquid fuel to total establishments	
1	2	3	4	5	6
21	Beverages	73·16	5·58	7·52	19·10
29	Paper and paper products	80·47	5·33	1·58	16·89
30	Printing and publishing	80·73	12·34	3·02	5·99
32	Rubber, petroleum and coal products	62·57	10·80	6·95	9·51
33	Chemicals and chemical products	85·40	4·11	1·50	24·37
37	Machinery (all kinds other than transport) and electrical equipment	65·09	32·68	10·38	8·25
38	Transport equipment	80·59	2·01	0·73	28·37

The unorganised and organised sectors in urban India

The following statement gives a list of industries in urban India in which the proportion of workers at household industry is large:

STATEMENT I.4

Industries in urban India in which the unorganised small establishments sector is large (proportion of workers at household industry above 20 per cent)

I.S.I.C. Major Group	Description	Proportion of 1-5 persons establishments to total establishments	Proportion of establishments using electricity to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
04	Livestock and hunting	83·70	3·74	40·04
20	Foodstuffs	85·11	32·06	23·22
22	Tobacco products	81·64	0·44	38·29
23	Textile—Cotton	80·44	8·30	40·83
25	Textile—Wool	74·30	12·21	37·43
26	Textile—Silk	81·78	16·27	54·84
27	Textile—Miscellaneous	82·22	3·68	28·69
28	Manufacture of wood and wood products	82·34	12·95	36·78
31	Leather and leather products	89·35	1·13	36·59
34-35	Non-metallic mineral products other than petroleum and coal	81·03	7·31	25·34
39	Miscellaneous manufacturing industries	86·31	6·43	23·10

The following statement gives a list of those industries in urban India in which the proportion of workers at household industry is small :

STATEMENT I.5

Industries in urban India which are more in the organised sector, having low ratios (0-20 per cent) of workers at household industry

I.S.I.C Major Group	Description	Proportion of 1-5 persons establishments to total establishments	Proportion of establishments using electricity to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
10	Mining and quarrying	..	100·00	0·20
21	Beverages	80·71	37·88	13·42
24	Textile—Jute	64·30	14 97	5·63
29	Paper and paper products	64·94	17·74	11·76
30	Printing and publishing	59.71	44.27	2·78
32	Rubber, petroleum and coal products ..	71·49	35·61	1 96
33	Chemicals and chemical products	63·65	23·59	10·47
36	Basic metals and their products except machinery and transport equipment	76 01	20·79	11·48
37	Machinery (all kinds other than transport) and electrical equipment	62·22	67·65	1·32
38	Transport equipment	80·81	12·24	3·10

It will be useful to extend this brief analysis of urban industries to those minor groups of industry which have at least 1,000 workshops and factories in each.

The urban picture is naturally enough more varied and promising than the rural. The following statement gives a list of industries in urban India in which the unorganised small establishments sector is large and the use of electricity low :

STATEMENT I.6

Industries in urban India in which the unorganised small establishments sector is large and the use of electricity low

I.S.I.C Minor Group	Description	Proportion of 1-5 persons establishments to total establishments	Proportion of establishments using electricity to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
204	Slaughtering, preservation of meat and fish and canning of fish	75·74	0·59	8·65
205	Bread, biscuits, cake and other bakery products	75·92	2·92	18·36
209	Other food products such as sweetmeat and condiments, muri, murki, chira, khoi, cocoa, chocolate, toffee, lozenge	89·49	1·30	34·99
220	Bidi	83·04	0·08	44·15
231	Cotton spinning (other than in mills)	84·75	8·68	81·64

STATEMENT I.6

Industries in urban India in which the unorganised small establishments sector is large and the use of electricity low—concld.

I.S.I.C. Minor Group	Description	Proportion of 1-5 persons establishments to total establishments	Proportion of establishments using electricity to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
233	Cotton dyeing, bleaching	73·36	7·68	44·59
235	Cotton weaving in handlooms	83·76	0·04	87·66
236	Khadi textile in handlooms	86·43	0·99	61·39
237	Printing of cotton textile	66·80	5·16	28·80
255	Wool weaving in handlooms	85·38	0·12	77·57
262	Spinning of silk other than in mills	85·17	4·70	66·19
264	Weaving of silk textile by handloom	90·85	0·40	91·50
270	Carpet and all other similar type of textile products	68·31	2·61	50·24
273	Textile garments including raincoats and headgear	84·15	0·41	25·08
281	Wooden furniture and fixtures	82·63	5·49	18·35
282	Structural wooden goods (including treated timber) such as beams, posts, doors, windows	82·88	6·50	26·11
288	Materials from cork, bamboo, cane, leaves and other allied products	93·94	0·83	85·77
289	Other wood and allied products n.e.c.	88·83	6·48	23·22
311	Shoes and other leather footwear	91·31	0·38	44·16
314	Repair of shoes and other leather footwear	89·85	0·32	17·77
350	Earthenware and earthen pottery	94·22	0·29	78·23
355	Earthen image, busts and statues	87·15	0·50	59·71
388	Repairing of bicycles and tricycles	86·77	0·82	8·02
389	Other transport equipment such as animal drawn and hand-drawn vehicles	87·14	5·63	29·67
392	Watches and clocks	84·98	1·87	9·46
393	Jewellery, silverware and wares using gold and other precious metals	89·81	2·32	35·70
394	Musical instruments	83·14	4·86	22·68

Although the above mentioned industries largely belong to the unorganised sector even in urban India, it is evident from the ratios in the last column that the minor groups 204, 205, 209, 237, 273, 281, 282, 289, 314, 388, 389, 392, 393 and 394 draw the bulk of their labour on wages and hire and not from the pool of family workers. The obvious explanation seems to be that urban customers demand a certain quality which is easier obtained by hiring skilled or semi-skilled labour rather than by training up family workers. It is also significant that in each one of these latter groups the proportion in column 3 is appreciably below 90 per cent which means that there are substantial numbers of workshops in these groups which employ more than 5 workers, do not use electricity to any appreciable degree, employ traditional tools and techniques but achieve certain economies of scale by engaging numerous hired workers. These may be said to be in the penumbra zone of the organised and unorganised sectors.

The next area in urban industries which calls for attention is that in which (1) the proportion of the small establishments is high (2) the proportion of workers in household industry moderate and (3) the proportion of small establishments using electricity is high, signifying a considerable movement in favour of modernisation of tools, techniques and scale in the still extensive unorganised sector. The following statement gives an account of these industries ;

STATEMENT I.7

Industries in urban India with a considerable unorganised but modernising sector in which (a) the proportion of workers at household industry is moderate and (b) the proportion of small establishments of 1-5 persons among those using electricity is appreciable

I.S.I.C. Minor Group	Description	Proportion of establishments of 1-5 persons to total of all establishments	Proportion of 1-5 persons establishments using electricity to total of all 1-5 persons establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
04	Livestock and hunting	83·70	63 64	43·91
200	Rice, atta, flour, etc. by milling dehusking and processing of crops and foodgrains	85·74	87·00	13 50
202	Indigenous sugar, gur from sugar cane or palm juice and production of candy	78 08	72 16	46 50
207	Edible fats and oils (other than hydrogenated oil)	78·37	58·93	27 81
214	Aerated and mineral water	87·45	76 42	19 04
230	Cotton ginning, cleaning, pressing and baling	69·48	60·88	21 25
272	Embroidery and making of crepe lace and fringes	75 42	64·59	48 01
274	Made-up-textile goods except wearing apparel such as curtains, pillow cases, bedding materials, mattress, textile bags	78 72	74·78	50 52
284	Other wooden products, such as utensils, toys, artwares	83·85	51·06	33 86
287	Boxes and packing cases other than plywood	66·81	26·96	13·10
292	Products, such as paper bags, boxes, cards, envelopes and moulded pulp goods from paper, paper board and pulp	69 68	28·05	32·63
303	All types of binding, stitching, sizing and other allied work connected with binding industry	71 65	49 17	8 00
310	Currying, tanning and finishing of hides and skins and preparation of finished leather	74 73	46 03	32 88
313	Leather products (except those covered by code Nos 311, 312) such as leather upholstery, suitcases, pocket books, cigarette and key-cases, purses, saddlery, whip and other articles	76 84	32 48	28 74
336	Soap and other washing and cleaning compounds	72 91	38 10	8 65
340	Structural clay products such as bricks, tiles	65 50	13 62	10 77
365	Brass and bell metal products	79 46	39 69	31 61
369	Sundry hardwares such as G.I. pipe, wire net, bolt, screw, bucket, cutlery	77 20	47 29	17 11

D. The organised sector in urban India

We now come to the third group of urban industries in which (1) the organised sector is indisputably strong, (2) the proportion of workers at household industry low and (3) the proportion of establishments using electricity is high.

The following statement gives an account of those industries whose strength lies in their organised sector:

STATEMENT I.8

Industries in urban India in which (1) *the organised sector is strong* (2) *the proportion of workers at household industry low and* (3) *the proportion of establishments using electricity is high*

I.S.I.C. Minor Group	Description	Proportion of establishments of 1-5 persons to total of all establishments	Proportion of establishments using electricity to total establishments	Proportion of workers at household industry to total workers
1	2	3	4	5
218	Coffee in curing works	77·54	79·37	1·48
232	Cotton spinning and weaving in mills	34·05	96·09	0·06
234	Cotton weaving in power looms	57·01	85·67	19·33
271	Hosiery and other knitted fabrics and garments	49·15	50·27	18·58
280	Sawing and planing of wood	57·81	60·04	7·60
301	Printing and publishing of books	48·60	65·22	5·10
302	All other types of printing including lithography, engraving, etching, block making and other work connected with printing industry	59·61	47·79	1·18
320	Tyres and tubes	84·76	30·55	2·11
335	Medicines, pharmaceutical preparations, perfumes, cosmetics and other toilet preparations except soap	64·02	18·28	10·94
337	Turpentine, synthetic, resin, and plastic products and materials (including synthetic rubber)	50·89	65·58	7·26
360	Iron and steel including smelting, refining, rolling, conversion into basic forms such as billets, blooms, tubes, rods	53·51	60·82	3·31
364	Iron and steel furniture	60·98	28·30	6·53
367	Metal products (other than of iron brass, bell metal and aluminium) such as tin can	79·67	11·42	10·08
368	Enamelling, galvanising, plating (including electroplating) polishing and welding of metal products	73·30	44·42	10·68
370	Machinery (other than electrical) except textile machinery	62·62	67·92	1·42
372	Machine tools	53·39	77·43	1·09
378	Electronic equipment such as radio, microphone	80·07	63·43	3·15
379	Electric machinery and apparatus, appliances n. e. c.	48·53	68·97	1·16
384	Repairing and servicing of motor vehicles	69·87	35·72	2·24
399	Manufacture and repair work of goods not assignable to any other group	80·07	17·13	12·41

E. The small, modern organised sector

The organised sector in urban industries where the number of workshops and factories in each minor group of industry is less than 1,000 *strong*

These seem to be the newly growing sectors of urban industry which are coming into their own with the diversification of needs and are having extensive recourse to electricity, modern techniques and tools in the organised sector. Establishments employing 1-5 persons are mostly engaged in repairing and servicing.

STATEMENT I.9

Newly growing industries in the organised sector which also make extensive use of electricity

I.S.I.C. Minor Group	Description	Total number of establishments	Total number of establishments employing 1-5 persons		Total number of establishments using electricity	Proportion of workers at household industry to total workers
			1 person	2-5 persons		
1	2	3	4	5	6	7
208	Hydrogenated oils (vanaspati)	148	37	29	71	..
210	Distilled spirits, wines, liquor from alcoholic malt, fruits and malts in distillery and brewery	52	7	8	30	9·39
217	Processing of tea in factories	88	1	8	63	..
241	Jute spinning and weaving	127	16	28	68	0·43
251	Wool cleaning and processing (scouring)	205	17	44	44	17·54
260	Spinning and weaving of silk, textile in mills	462	3	36	441	..
263	Silk textile by power looms	821	36	321	806	35·41
266	Silk cordage, rope and twine	462	73	256	376	39·34
285	Veneer and plywood	125	37	38	41	13·12
286	Plywood products such as tea chest	138	11	48	53	4·82
290	Pulp from wood, rags, wastepaper and other fibres and the conversion of such pulp into any kind of paper and paper board in mills	94	4	15	66	..
291	Pulp from wood, rags wastepaper and other fibres and the conversion of such pulp into any kind of paper and paper board handmade	174	28	61	65	26·98
300	Newspapers and periodicals	645	62	281	417	0·52
321	Rubber footwear	106	14	43	54	14·03
322	Rubber goods used for industrial purpose	124	16	34	76	1·86
323	All kinds of other rubber products from natural or synthetic rubber including rubber raincoat	384	59	119	152	1·31
324	Petroleum, kerosene and other petroleum products in petroleum refineries	29	3	6	17	..
325	Coaltar and coke in coke oven	26	8	5	8	..
326	Other coal and coaltar products not covered elsewhere	62	4	21	26	1·99
330	Basic industrial chemicals such as acids, alkalis and their salts not elsewhere specified	267	29	101	91	1·17
331	Dyes, paints, colours and varnishes	976	199	383	344	5·36
332	Fertilizers	105	7	17	67	0·70
334	Matches	272	6	25	76	30·56
341	Cement and cement products	510	76	247	103	1·72
343	Structural stone goods, stone dressing and stone crushing	696	117	277	187	7·23
347	Asbestos products	13	1	1	9	1·39
352	Porcelain and its products	109	60	23	22	0·67
354	Glass apparatus	266	19	105	71	2·66
357	Glass and glass products except optical and photographic lenses and glass products covered above	449	58	185	182	3·66
359	Other non-metallic mineral products not elsewhere specified	481	92	214	322	5·21
361	Smelting, refining of non-ferrous metals and alloys in basic forms	167	16	88	69	0·95

STATEMENT I.9

Newly growing industries in the organised sector which also make extensive use of electricity—concld.

I.S.I.C. Minor Group	Description	Total number of establishments	Total number of establishments employing 1-5 persons: 1 person	2-5 persons	Total number of establishments using electricity	Proportion of workers at household industry to total workers
1	2	3	4	5	6	7
363	Structural steel products such as joist, rail, sheet, plate	399	26	156	237	0·03
366	Aluminium products	560	76	188	252	4·02
371	Prime mover and boilers, other than electrical equipment, such as diesel engines, road rollers, tractors	410	38	168	288	0·02
373	Textile machinery and accessories	818	145	389	500	3·08
374	Heavy electrical machinery and equipment such as motors, generators, transformers	327	48	108	265	..
375	Electric lamps and fans	564	72	266	417	0·91
376	Insulated wires and cables	325	71	99	194	0·42
377	All kinds of battery	785	250	422	460	0·76
380	Locomotives	283	20	62	191	..
381	Wagons, coaches, tramways and other rail road equipment other than that covered by code No. 363	276	27	75	137	..
382	Motor vehicles of all types (excepting motor engines)	335	56	148	118	2·27
383	Motor vehicles, engine parts and accessories	535	53	235	364	0·28
385	Bicycles and tricycles and accessories such as saddle, seat frame, gear	975	169	415	490	3·47
386	Water transport equipment such as ships, boats and manufacture of marine engines	153	7	50	56	1·05
387	Air transport equipment including aeroplanes, aeroengines	38	3	9	28	..
390	Optical instruments and lenses, opthalmic goods and photographic equipment and supplies	919	193	351	402	7·98
391	Scientific, medical and surgical instruments and equipment and supplies	458	84	149	312	3·92
395	Stationery articles not covered elsewhere such as pencil, penholder, fountain pen	812	171	265	308	9·49

F. The strength of the unorganised sector in rural and urban India as reflected in the proportions of single workers and family workers in major groups of industries

Further independent corroboration of the strength of the unorganised sector in Rural and Urban India is available from the proportions of single and family workers in major groups of industries. It will be conceded that appreciable number of single and family workers will appear only in the unorganised sector, one of the tests of the organised sector being a high employer-employee relationship.

The following statement shows those major groups of industry where the proportions of single and family workers are low :

STATEMENT I.10

Major groups of industry in rural and urban India in which the proportions of (1) *single workers and* (2) *family workers are low and therefore the strength of the organised sector is high*

[For major group 24 in Rural India see below]

I.S.I.C. Major Group	Description	Rural India		Urban India	
		Proportion of single workers	Proportion of family workers	Proportion of single workers	Proportion of family workers
1	2	3	4	5	6
01	Plantation crops	4·86	4·75	5·53	2·15
24	Jute textiles	9·30	3·67	3·49	0·39
37	Machinery and electrical equipment ..	9·62	1·63	7·13 ..	1·56

Rural India

The following statement shows those major groups of industry in Rural India where the proportions of single and family workers are moderately low signifying that the strength of the organised sector is moderately high :

STATEMENT I.11

Major groups of industry in rural India in which the proportions of (1) *single workers and* (2) *family workers are moderately low signifying that the strength of the organised sector is moderately high*

[For major groups 23 and 26 see below]

I.S.I.C. Major Group	Description	Employers	Rural India	
			Proportion of single workers	Proportion of family workers
1	2	3	4	5
10	Mining and quarrying	1·71	15·13	4·99
23	Cotton textiles	1·37	13·69	4·86
26	Silk textiles	4·59	17·32	3·79
29	Paper and paper products	0·58	6·45	1·56
30	Printing and publishing	3·25	10·22	2·27
32	Rubber, petroleum and coal products	1·96	11·48	2·63
33	Chemicals and chemical products	2·42	11·22	3·51

The following statement gives the major groups of industry in rural India where the proportions of single workers are high signifying that the strength of the unorganised sector is high :

STATEMENT I.12

Major groups of industry in rural India in which the proportions of single workers are high signifying that the strength of the unorganised sector is high

I.S.I.C. Major Group	Description	Rural India		
		Employers	Proportion of single workers	Proportion of family workers
1	2	3	4	5
00	Field produce and plantation crops	6 99	37 62	32 53
02	Forestry and logging	1·69	33 06	15 61
03	Fishing	2 35	59·61	26 99
04	Livestock and hunting	2·69	41·66	24·72
20	Foodstuffs	4·08	21·81	7 40
21	Beverages	4 02	35·30	19 80
22	Tobacco products	1 57	25·97	3 23
25	Woollen textiles	5 42	26 24	12 55
27	Miscellaneous textiles	5·15	54·23	9 05
28	Wood and wood products	2·39	58·82	8 80
31	Leather and leather products	4·00	51·91	10 43
34-35	Non-metallic mineral products	1·84	27·47	9 48
36	Basic metals and metal products	3·10	28·43	6 58
38	Transport equipment	4·29	21·22	3 37
39	Miscellaneous manufacturing	3 96	39 52	9 96

When compared with Statement I.11 above, this statement will show that the predominance of the unorganised sector is emphasized in respect of major groups 04, 25, 27, 28, 31, 34-35, 36 and 39. Major groups 20, 22 and 38 can claim an equivocal place in this category because in either case the proportion of employees is very much higher than the combined value of employers, single workers and family workers combined. These three major groups therefore are more in the organised sector than in the unorganised. Major groups 21 and 38 find mention in the above statement but not in Statement I.11, which implies, thanks to the definition of household industry, that a substantial proportion of single workers and family workers in these two major groups may be working in places which are away from home or from the village. This is quite possible in respect of pursuits like beverages or manufacture, repair and maintenance of transport vehicles. On the other hand, major groups 23 and 26 which find mention in Statement I.11 do not find mention in the above statement, probably on account of the fact that even in establishments run as household industries the proportion of hired workers or employees is considerable in the three major groups of cotton, jute and fibres and silk textiles.

Urban India

The following statement shows those major groups of industry in urban India where the proportions of single and family workers are moderately low signifying that the strength of the organised sector is moderately high :

STATEMENT I.13

Major groups of industry in urban India in which the proportions of single workers and family workers are low signifying that the strength of the organised sector is moderately high

I.S.I.C Major Group	Description	Urban India		
		Employers	Proportion of single workers	Proportion of family workers
1	2	3	4	5
23	Cotton textiles	1·46	4·89	1·24
25	Woollen textiles	3·29	9·93	1·79
26	Silk textiles	3·29	6·68	1·52
30	Printing and publishing	7·13	6·59	2·23
32	Rubber, petroleum and coal products	3·88	5·29	1·62
33	Chemicals and chemical products	4·78	7·09	1·87

The following statement shows those major groups of industry in urban India where the proportions of single workers is moderately high signifying that the strength of the unorganised sector is moderately high too :

STATEMENT I.14

Major groups of industry in urban India in which the proportions of single workers are moderately high signifying that the strength of the unorganised sector is moderately high too

I.S.I.C Major Group	Description	Urban India		
		Employers	Proportion of single workers	Proportion of family workers
1	2	3	4	5
10	Mining and quarrying	2·10	10·53	1·92
21	Beverages	9·54	15·32	5·46
22	Tobacco products	3·26	19·16	2·35
29	Paper and paper products	2·96	15·00	1·90
36	Basic metals and metal products	4·59	14·03	3·66
38	Transport equipment	5·98	12·58	2·84

The following statement shows those major groups of industry in urban India where the proportion of single workers is high signifying that the strength of the unorganised sector is high also :

STATEMENT I.15

Major groups of industry in urban India in which the proportions of single workers are high signifying that the strength of the unorganised sector is high also

N.S.I.C. Major Group	Description	Employers	Urban India	
			Proportion of single workers	Proportion of family workers
1	2	3	4	5
00	Field produce and plantation crops	5·26	31·35	19·04
02	Forestry and logging	7·30	40·92	5·59
03	Fishing	2·67	57·27	19·23
04	Livestock and hunting	4·84	42·49	14·00
20	Foodstuffs	9·68	20·47	7·16
27	Miscellaneous textiles	10·27	41·13	7·95
28	Wood and wood products	5·77	45·96	5·47
31	Leather and leather products	6·43	40·55	6·54
34-35	Non-metallic mineral products	4·48	21·62	5·52
39	Miscellaneous manufacturing	8·65	25·71	7·36

STATEMENT

Percentage of employers, employees, single workers and family workers in the major

(Source—

I.S.I.C. Major Group	Total		
	Total	Rural	Urban
1	2	3	4
ALL DIVISIONS	100·00	100·00	100·00
00—Field produce and plantation crops	100·00	100·00	100·00
01—Plantation crops	100·00	100·00	100·00
02—Forestry and logging	100·00	100·00	100·00
03—Fishing	100·00	100·00	100·00
04—Livestock and hunting	100·00	100·00	100·00
10—Mining and quarrying	100·00	100·00	100·00
20—Foodstuffs	100·00	100·00	100·00
21—Beverages	100·00	100·00	100·00
22—Tobacco products	100·00	100·00	100·00
23—Textile—Cotton	100·00	100·00	100·00
24—Textile—Jute	100·00	100·00	100·00
25—Textile—Wool	100·00	100·00	100·00
26—Textile—Silk	100·00	100·00	100·00
27—Textile—Miscellaneous	100·00	100·00	100·00
28—Manufacture of wood and wood products	100·00	100·00	100·00
29—Paper and paper products	100·00	100·00	100·00
30—Printing and publishing	100·00	100·00	100·00
31—Leather and leather products	100·00	100·00	100·00
32—Rubber, petroleum and coal products	100·00	100·00	100·00
33—Chemicals and chemical products	100·00	100·00	100·00
34-35—Non-metallic mineral products other than petroleum and coal ..	100·00	100·00	100·00
36—Basic metals and their products except machinery and transport equipment	100·00	100·00	100·00
37—Machinery (all kinds other than transport) and electrical equipment	100·00	100·00	100·00
38—Transport equipment	100·00	100·00	100·00
39—Miscellaneous manufacturing industries	100·00	100·00	100·00

1.16

groups of industry for all India, Total, Rural and Urban 1961

Table B-IV-B)

Employers			Employees			Single workers			Family workers		
Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
5	6	7	8	9	10	11	12	13	14	15	16
4·52	3·16	6 00	50 60	40·61	61·57	36·84	45 33	27 53	8·04	10 90	4·90
6 66	6·99	5·26	26 91	22·86	44·35	36·44	37·62	31 35	29 99	32·53	19·04
1·40	1·30	3·08	89 10	89·09	89 24	4·90	4·86	5·53	4 60	4 75	2·15
2·30	1·69	7·30	49 27	49·64	46·19	33·90	33·06	40 92	14 53	15 61	5·59
2·41	2·35	2·67	13 03	11·05	20 83	59·14	59·61	57 27	25 42	26·99	19·23
2 87	2·69	4·84	31·56	30·93	38 67	41·72	41·66	42 49	23·85	24 72	14 00
1 79	1·71	2·10	79 84	78·17	85·45	14·08	15·13	10 53	4·29	4·99	1·92
6 92	4·08	9·68	64 67	66·71	62·69	21·13	21·81	20 47	7·28	7 40	7 16
5·63	4·02	9·54	49 27	40·88	69·68	29·48	35·30	15·32	15·62	19 80	5·16
2 62	1·57	3·26	72·95	69·23	75·23	21·75	25·97	19·16	2·68	3·23	2·35
1·45	1·38	1·46	90 29	80·07	92·41	6·40	13·69	3·89	1·86	4 86	1·24
0·76	1·34	0 64	93·74	85·69	95·48	4·52	9·30	3·49	0·98	3 67	0·39
3·76	5·42	3·29	78·58	55·80	84·99	13·51	26·24	9 93	4·15	12 54	1·79
3·53	4·59	3·29	85 88	74·30	88·51	8·65	17·32	6 68	1·94	3 79	1·52
8·57	5·15	10·27	37·62	31·57	40·65	45·50	54·23	41 13	8 31	9 05	7·95
4 31	2·39	5·77	37·28	29·99	42 80	51·50	58·82	45 96	6·91	8 80	5·47
2·33	0·58	2·95	83 11	91·41	80 15	12·75	6·45	15 00	1·81	1 56	1 90
6 75	3·25	7·13	84 07	84·26	84 05	6·94	10·22	6 59	2 24	2 27	2 23
5·80	4·00	6·43	43 20	33·66	46·48	43·46	51·91	40 55	7 54	10 43	6·54
3·64	1·96	3·88	88·55	83·93	89 21	6·06	11·48	5·29	1 75	2 63	1 62
4·16	2·42	4·78	85·35	82·85	86·26	8·18	11·22	7 09	2·31	3·51	1·87
3·00	1·84	4·48	64·35	61·21	68 38	24·91	27·47	21·62	7 74	9 48	5·52
4·29	3·10	4·59	74·56	61·89	77·72	16 90	28·43	14 03	4·25	6 58	3·66
4·45	1·81	4·91	86·48	86·94	86·40	7·50	9·62	7 13	1·57	1·63	1·56
5 70	4·29	5·98	77·37	71·12	78·60	14 00	21·22	12 58	2·93	3·37	2·84
7·61	3·96	8·65	55·68	46·56	58·28	28·78	39·52	25 71	7·93	9·96	7·36

STATEMENT

Employers, employees, single workers and family workers in the major

(Source—

I.S.I.C. Major Group	Total			Employers		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
ALL DIVISIONS ..	45,501,597	23,811,213	21,690,384	2,054,641	753,391	1,301,250
00—Field produce and plantation crops	518,524	420,750	97,774	34,554	29,412	5,142
01—Plantation crops ..	1,190,002	1,118,822	71,180	16,664	14,471	2,193
02—Forestry and logging	356,475	318,266	38,209	8,177	5,388	2,789
03—Fishing	551,867	440,348	111,519	13,332	10,354	2,978
04—Livestock and hunting	1,689,377	1,553,252	136,125	48,424	41,837	6,587
10—Mining and quarrying	915,153	705,118	210,035	16,434	12,028	4,406
20—Foodstuffs	953,140	470,846	482,294	65,900	19,203	46,697
21—Beverages	152,871	108,337	44,534	8,606	4,357	4,249
22—Tobacco products ..	413,423	157,234	256,189	10,814	2,468	8,346
23—Textile—Cotton ..	1,322,424	226,295	1,096,129	19,117	3,112	16,005
24—Textile—Jute ..	262,232	46,600	215,632	2,008	626	1,382
25—Textile—Wool ..	31,608	6,936	24,672	1,187	376	811
26—Textile—Silk ..	71,771	13,291	58,480	2,536	610	1,926
27—Textile—Miscellaneous	689,266	229,583	459,683	59,055	11,831	47,224
28—Manufacture of wood and wood products	585,050	252,112	332,938	25,213	6,016	19,197
29—Paper and paper products	69,753	18,388	51,365	1,623	107	1,516
30—Printing and publishing	211,986	20,672	191,314	14,310	672	13,638
31—Leather and leather products	223,192	57,177	166,015	12,957	2,284	10,673
32—Rubber, petroleum and coal products	70,099	8,756	61,343	2,549	172	2,377
33—Chemicals and chemical products ..	275,095	72,904	202,191	11,437	1,765	9,672
34-35—Non-metallic mineral products other than petroleum and coal	654,302	367,791	286,511	19,633	6,791	12,842
36—Basic metals and their products except machinery and transport equipment	733,504	146,190	587,314	31,457	4,532	26,925
37—Machinery (all kinds other than transport) and electrical equipment ..	217,706	32,214	185,492	9,683	582	9,101
38—Transport equipment	529,080	87,234	441,846	30,179	3,743	26,436
39—Miscellaneous manufacturing industries	508,892	112,836	396,056	38,731	4,470	34,261

I.17

groups of industry for all India, Total, Rural and Urban 1961

Table B-IV-B)

Employees			Single Workers			Family Workers		
Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
8	9	10	11	12	13	14	15	16
23,025,099	9,670,292	13,354,807	16,764,058	10,793,048	5,971,010	3,657,799	2,594,482	1,063,317
139,559	96,199	43,360	188,927	158,271	30,656	155,484	136,868	18,616
1,060,290	996,767	63,523	58,339	54,405	3,934	54,709	53,179	1,530
175,646	157,998	17,648	120,844	105,209	15,635	51,808	49,671	2,137
71,887	48,657	23,230	326,360	262,494	63,866	140,288	118,843	21,445
533,107	480,463	52,644	704,831	646,988	57,843	403,015	383,964	19,051
730,648	551,184	179,464	128,843	106,717	22,126	39,228	35,189	4,039
616,403	314,077	302,326	201,423	102,706	98,717	69,414	34,860	34,554
75,318	44,287	31,031	45,066	38,243	6,823	23,881	21,450	2,431
301,594	108,854	192,740	89,934	40,841	49,093	11,081	5,071	6,010
1,194,079	181,203	1,012,876	84,606	30,989	53,617	24,622	10,991	13,631
245,814	39,929	205,885	11,850	4,333	7,517	2,560	1,712	848
24,839	3,870	20,969	4,271	1,820	2,451	1,311	870	441
61,637	9,875	51,762	6,206	2,302	3,904	1,392	504	888
259,326	72,479	186,847	313,581	124,510	189,071	57,304	20,763	36,541
218,111	75,617	142,494	301,302	148,284	153,018	40,424	22,195	18,229
57,975	16,809	41,166	8,891	1,185	7,706	1,264	287	977
178,210	17,419	160,791	14,725	2,113	12,612	4,741	468	4,273
96,410	19,247	77,163	97,003	29,680	67,323	16,822	5,966	10,856
62,072	7,349	54,723	4,252	1,005	3,247	1,226	230	996
234,795	60,398	174,397	22,518	8,180	14,338	6,345	2,561	3,784
421,030	225,125	195,905	162,964	101,020	61,944	50,675	34,855	15,820
546,920	90,471	456,449	123,986	41,563	82,423	31,141	9,624	21,517
188,283	28,008	160,275	16,326	3,100	13,226	3,414	524	2,890
409,341	62,041	347,300	74,085	18,512	55,573	15,475	2,938	12,537
283,340	52,538	230,802	146,441	44,596	101,845	40,380	11,232	29,148

These statements generally corroborate the conclusions of Statements I.4 and 5 above in respect of major groups 04, 20, 21, 24, 27, 28, 29, 30, 31, 32, 33, 34-35, 36, 37, 38 and 39. Judging by the proportions of workers at household industry alone however, major group 38 should have been in the highly organised sector. Statement I.5 above places major group 10—mining and quarrying in the organised sector which in fact it is and it is probable that the high single and family worker returns that we get here are freak errors of classification at the enumeration stage, particularly respecting workers in open cut quarries and mines and workers at road metal. The proportion of workers in household industry in major group 23 is high while that of single workers and family workers in the same major group is low. It is, however, possible that the proportion of hired workers in master weaver establishments is high, a trend which is much in evidence in the major handloom centres of the country. A similar comment seems to apply in the cases of wool and silk.

G. Strength of the unorganised rural sector in certain clusters of major groups of the industrial classification

As observed before it may prove an interesting exercise to find out whether the strength of the unorganised sector varies according to the raw material used for processing. In other words, it is possible that the hold of the traditional unorganised sector of small establishments and workers at household industry is still strong when the industry is concerned with the processing of primary products like agricultural commodities or textile fibres or non-metallic minerals or wood or skins and hides and leather and it is, *vice versa*, weak where the industry is concerned with secondary and tertiary products like semi-processed or processed material *e.g.* paper, printing, machinery and machinery parts and equipment.

A grouping, therefore, may be made of States by industries in the rural areas, based on (a) type of material used for processing or manufacture, (b) the strength of employment in the organised and unorganised sectors respectively and (c) the extent of use of electricity and liquid fuel.

It is possible to arrange the major groups of the industrial classification in five composite categories by use of raw or semi-processed and processed raw materials as follows :

I Industries producing foodstuffs, beverages and tobacco products..	Major groups 20, 21, and 22
II Industries based on fibres : cotton textiles, jute, wool, silk and miscellaneous textiles	Major groups 23, 24, 25, 26 and 27
III Industries based on wood and skins and hides	Major groups 28 and 31
IV Industries based on non-metallic minerals	Major groups 34-35
V Industries connected with metals, machinery and equipment ..	Major groups 36, 37, 38 and 39

The following statement arranges the major States in each of the four composite categories by the following characteristics :

(1) Proportion of establishments employing 1-5 persons to total establishments

(2) Proportion of establishments employing electricity to total establishments

(3) Proportion of establishments employing liquid fuel to total establishments

(4) Proportion of workers at household industry to total workers. (Divisions 0, 1, 2 & 3)

STATEMENT I.18

Distribution of certain characteristics by clusters of major groups of industries in rural areas of States and India

(*a*) Proportion of establishments employing 1-5 persons to total establishments

(*b*) Proportion of establishments using electricity to total establishments

(*c*) Proportion of establishments using liquid fuel to total establishments

(*d*) Proportion of household industry workers to total workers in Divisions 0, 1, 2 & 3

State	I.S.I.C. Major Groups 20, 21, 22				I.S.I.C. Major Groups 23, 24, 25, 26, 27				I.S.I.C. Major Groups 29, 30, 32, 33			
	a	b	c	d	a	b	c	d	a	b	c	d
1	2	3	4	5	6	7	8	9	10	11	12	13
INDIA	90	3·4	13·1	65	92	0·4	0·2	86	83	5·6	2·1	20
1 Andhra Pradesh ..	89	6·4	16·9	50	98	0·1	0·2	95	68	14·0	..	52
2 Assam	42	2·7	50·4	37	12	..	0·2	95	29	2·4	9·4	13
3 Bihar	96	3·7	5·5	79	98	0·5	N	90	89	9·3	1·0	41
4 Gujarat	89	8·8	51·2	51	96	2·3	2·4	65	58	31·3	12·5	3
5 Jammu and Kashmir	99	0·6	0·9	71	96	0·3	N	90	85	15·0	..	48
6 Kerala	89	11·9	3·6	28	77	1·0	0·1	74	86	3·7	1·5	17
7 Madhya Pradesh ..	98	0·4	6·3	93	99	N	0·2	94	94	1·0	1·0	50
8 Madras	62	34·7	16·0	70	64	0·6	N	83	39	12·3	5·7	14
9 Maharashtra	96	1·6	21·4	62	98	0·4	0·2	77	84	8·0	4·5	6
10 Mysore	94	12·1	22·1	56	94	1·1	0·8	88	77	22·8	0·7	21
11 Orissa	97	0·2	5·2	92	97	N	N	96	97	0·6	0·8	36
12 Punjab	98	8·9	21·9	51	95	3·9	3·4	85	75	19·1	1·2	10
13 Rajasthan	96	3·0	65·9	68	97	0·2	1·9	81	92	3·3	3·9	54
14 Uttar Pradesh ..	93	3·3	15·1	73	93	0·3	0·4	89	96	1·1	0·4	32
15 West Bengal	40	1·3	16·3	53	78	0·2	N	67	70	6·0	3·5	6

State	I.S.I.C. Major Groups 28, 31				I.S.I.C. Major Groups 34-35				I.S.I.C. Major Groups 36, 37, 38, 39				I.S.I.C. Divisions 0, 1, 2 & 3			
	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
INDIA	98	0·2	0·2	86	95	0·4	0·3	67	94	0·7	0·5	67	93	1·2	3·6	59
1 Andhra Pradesh ..	100	0·1	0·1	96	99	0·1	..	80	99	0·3	0·1	86	98	1·1	2·5	69
2 Assam	47	2·6	9·4	51	50	1·4	2·8	36	55	1·3	3·3	23	43	1·5	13·9	32
3 Bihar	98	0·3	0·1	91	97	0·3	0·3	66	98	0·6	0·2	69	97	1·2	1·4	55
4 Gujarat	99	0·9	1·3	91	94	6·0	2·4	75	98	1·3	2·8	73	95	3·6	13·6	71
5 Jammu and Kashmir	98	0·7	0·9	79	95	0·1	0·1	80	97	0·7	0·1	74	98	0·5	0·6	72
6 Kerala	88	10·7	0·5	49	75	9·1	0·6	41	97	1·5	N	49	86	6·1	1·6	34
7 Madhya Pradesh ..	100	N	0·1	97	99	N	N	84	99	N	0·1	91	99	0·1	1·9	59
8 Madras	70	0·5	N	76	65	1·0	0·1	66	55	1·2	0·3	52	63	4·1	1·7	59
9 Maharashtra ..	99	0·1	0·2	93	98	0·4	0·4	74	98	0·7	1·3	75	98	0·7	6·7	54
10 Mysore	98	0·4	0·2	84	96	0·4	0·3	60	99	0·7	0·2	77	96	3·4	5·5	57
11 Orissa	98	N	N	97	97	N	N	91	98	0·1	N	91	97	0·1	0·5	77
12 Punjab	99	2·1	1·4	87	83	1·7	..	58	95	5·3	0·4	49	97	6·0	10·0	73
13 Rajasthan	98	0·1	0·2	92	97	0·1	0·5	84	98	0·4	0·4	82	97	0·7	13·5	72
14 Uttar Pradesh ..	97	0·4	0·6	91	93	0·4	1·7	70	95	0·7	1·5	76	94	1·5	6·4	78
15 West Bengal ..	82	2·9	2·0	71	72	0·3	0·9	35	77	1·4	0·5	32	61	1·0	7·3	32

'N' stands for negligible.

STATEMENT I.19

Grouping of rural areas of States by composite values of clusters of major groups of industrial classification

I Composite values of Major Groups 20, 21 and 22 (Foodstuffs, beverages and tobacco)

The states which use electricity in a comparatively high proportion of establishments in this composite category are Andhra Pradesh (6·4 per cent) Gujarat (8·8), Kerala (12), Madras (35), Mysore (12) and Punjab (8·9).

The States which use liquid fuel in a comparatively high proportion of establishments in this composite category are Andhra Pradesh (17), Assam (50), Gujarat (51), Madras (16), Maharashtra (21), Mysore (22), Punjab (22), Rajasthan (66), Uttar Pradesh (15), West Bengal (16).

In respect of like proportions of small establishments to total workshops and factories and of workers at household industry to total workers the following groupings are obtained :

1 Low proportions of the unorganised sector in both establishments and workers:	Assam and West Bengal.
2 Medium proportions in both :	Madras.
3 High proportion of establishments in the unorganised sector but low ratio of workers at household industry:	Kerala.
4 High proportion of establishments in the unorganised sector but medium ratio of workers at household industry.:	All India, Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Maharashtra, Mysore, Punjab, Rajasthan and Uttar Pradesh.
5 High proportion of establishments in the unorganised sector and high ratio of workers at household industry :	Madhya Pradesh and Orissa.

II Composite values of Major Groups 23, 24, 25, 26 and 27 (Cotton, jute, wool, silk, textiles and other fibres)

Punjab is the only State with an appreciable ratio (4 per cent) of electricity use in rural areas followed by Gujarat (2·3). Punjab and Gujarat are also the only two States which have similar ratios (3·4 and 2·4 per cent respectively) for liquid fuel.

The following groupings of like characteristics are obtained :

1 States with high ratios of small establishments in the unorganised sector matched by high ratios of workers at household industry:	Andhra Pradesh, Bihar, Jammu and Kashmir, Madhya Pradesh and Orissa.
2 States with high ratios of small establishments in the unorganised sector but moderate ratios of workers at household industry:	All India, Gujarat, Maharashtra, Mysore, Punjab, Rajasthan and Uttar Pradesh.
3 States with moderate ratios of small establishments in the unorganised sector and moderate ratios of workers at household industry:	Madras, Kerala and West Bengal.
4 State with low ratio of small establishments but high ratio of workers at household industry:	Assam.

III Composite values in 29, 30, 32 and 33 (Paper, printing, rubber, petroleum, coal and coke, chemicals)

The States with comparatively high values of electricity uses are Andhra Pradesh (14 per cent), Bihar (9·3), Gujarat (31), Jammu and Kashmir (15), Madras (12·3), Mysore (23) and Punjab (19).

The States with fair values for liquid fuel are Assam (9·4), Gujarat (12·5), Madras (5·7), Maharashtra (4·5), Rajasthan (3·9) and West Bengal (3·5).

The groupings shown on facing page of like characteristics are obtained :

STATEMENT I.19

Grouping of rural areas of States by composite values of clusters of major groups of industrial classification—contd.

1 States with moderately high ratios for small establishments but moderate ratios for workers at household industry:	Andhra Pradesh, Bihar, Jammu and Kashmir, Madhya Pradesh and Rajasthan.
2 States with moderately high ratios for small establishments but low ratios for workers at household industry :	All India, Kerala, Mysore, Orissa and Uttar Pradesh.
3 States with moderate ratios for small establishments but very low ratios for workers at household industry:	Gujarat, Maharashtra, Punjab and West Bengal.
4 States with low ratios for small establishments and low ratios for workers at household industry :	Assam and Madras.

IV Composite values of Major Groups 28 and 31 (Wood and wood products, skins and leather)

The States with comparatively high electricity use in the rural sector are Assam (2·6 per cent), Kerala (10·7) and West Bengal (2·9). Those with appreciable use of liquid fuel are Assam (9·4) and West Bengal (2·0).

The following groupings of like characteristics are obtained :

1 States with high ratios both for small establishments in the unorganised sector and workers at household industry :	All India, Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan and Uttar Pradesh.
2 States with moderate ratios in small establishments and workers at household industry :	Kerala, Madras and West Bengal.
3 State with low ratios in small establishments and workers at household industry:	Assam.

V Composite values for Major Groups 34-35 (Non-metallic mineral products)

The states which use electricity in a comparatively high proportion of establishments in this composite category are Gujarat (6 per cent), Kerala (9) and Punjab (1·7).

The States which use liquid fuel in a comparatively high proportion of establishments are Assam (2·8), Gujarat (2·4) and Uttar Pradesh (1·7).

The following groupings of like characteristics are obtained :

1 High proportion of the unorganised sector in both establishments and workers :	Andhra Pradesh, Jammu and Kashmir, Madhya Pradesh, Orissa and Rajasthan.
2 High proportion of the unorganised sector in establishments but moderate proportion of unorganised workers at household industry:	All India, Bihar, Gujarat, Maharashtra, Mysore, Punjab and Uttar Pradesh.
3 Moderate proportion of the unorganised sector in establishments and comparatively low proportion of workers at household industry :	Assam, Kerala and West Bengal.

VI Composite values of Major Groups 36, 37, 38 and 39 (Basic metals, machinery, transport equipment and miscellaneous).

The only state with fairly high electricity use is Punjab (5·3 per cent).

The two states with appreciable use of liquid fuel are Assam (3·3 per cent) and Gujarat (2·8).

The groupings shown on next page of like characteristics are obtained :

STATEMENT I.19

Grouping of rural areas of States by composite values of clusters of major groups of industrial classification—concld.

1 States with high ratios of small establishments and workers at household industry:	Madhya Pradesh and Orissa.
2 States with high ratios of small establishments and fairly high ratios of workers at household industry are :	Andhra Pradesh and Rajasthan.
3 States with high ratios of small establishments but moderate ratios of workers at household industry are :	All India, Bihar, Gujarat, Jammu and Kashmir, Maharashtra, Mysore and Uttar Pradesh.
4 States with high ratios of small establishments but low ratios of workers at household industry are :	Kerala and Punjab.
5 State with moderate ratio in both small establishments and workers at household industry :	Madras.
6 States with moderate ratios of small establishments and low ratios of workers at household industry are :	Assam and West Bengal.

VII Composite values of all Major Groups together

The States with appreciable ratios of electricity use are Gujarat (3·6), Kerala (6·1), Madras (4·1), Mysore (3·4) and Punjab (6).

The States with appreciable ratios for liquid fuel are Assam (13·9), Gujarat (13·6), Maharashtra (6·7), Mysore (5·5), Punjab (10), Rajasthan (13·5), Uttar Pradesh (6·4) and West Bengal (7·3).

1 States with high ratios of small establishments and moderately high ratios of workers at household industry:	Andhra Pradesh, Gujarat, Jammu and Kashmir, Orissa, Punjab, Rajasthan and Uttar Pradesh.
2 States with high ratios of small establishments and moderate ratios of workers at household industry:	All India, Bihar, Madhya Pradesh, Maharashtra and Mysore.
3 States with moderate ratios of small establishments and moderate or low ratios of workers at household industry:	Kerala and Madras.
4 States with low ratios of small establishments and low ratios of workers at household industry:	Assam and West Bengal.

H. Strength of the unorganised sector in certain clusters of Major Groups of the industrial classification in urban areas of India and the major States

We may, in like manner, try to find out whether the strength of the unorganised sector varies according to the raw material used for processing.

A companion statement for urban areas of states and all India to what has been presented above for rural areas will be of interest.

STATEMENT I.20

Distribution of certain characteristics by clusters of major groups of industries in urban areas of States and India

(a) Proportion of establishments employing 1-5 persons to total establishments
(b) Proportion of establishments using electricity to total establishments
(c) Proportion of establishments employing 1-5 persons to total establishments using electricity
(d) Proportion of household industry workers to total workers.

State	I.S.I.C. Major Groups 20, 21, 22				I.S.I.C. Major Groups 23 to 27				I.S.I.C. Major Groups 29, 30, 32, 33			
	a	b	c	d	a	b	c	d	a	b	c	d
1	2	3	4	5	6	7	8	9	10	11	12	13
INDIA	84	25	82	28	81	7	52	36	62	35	44	7
1 Andhra Pradesh ..	72	37	70	35	94	1	17	71	69	21	32	13
2 Assam	48	14	53	9	12	0·4	33	56	41	20	17	1·4
3 Bihar	91	15	91	38	95	1·4	76	50	76	39	62	9
4 Gujarat	85	39	89	18	86	25	58	14	67	52	57	3
5 Jammu and Kashmir ..	92	24	78	31	86	3·2	42	45	65	37	38	16
6 Kerala	81	19	76	18	83	1·3	15	41	71	21	28	5
7 Madhya Pradesh ..	93	12	89	56	96	6	83	31	82	31	64	17
8 Madras	62	42	69	26	67	1·8	37	60	43	22	28	14
9 Maharashtra	88	21	89	26	85	10	52	21	61	38	37	2·3
10 Mysore	87	26	87	25	89	11	55	54	73	28	66	13
11 Orissa	89	15	87	44	96	0·4	27	46	77	28	48	15
12 Punjab	89	53	87	14	77	21	42	32	68	41	44	6
13 Rajasthan	90	39	96	24	85	8	72	43	78	35	65	15
14 Uttar Pradesh	90	24	85	30	93	2	63	49	77	20	43	13
15 West Bengal	66	25	67	11	56	8	30	9	52	43	40	2·4

State	I.S.I.C. Major Groups 28, 31				I.S.I.C. Major Groups 34-35				I.S.I.C. Major Groups 36 to 39				Total			
	a	b	c	d	a	b	c	d	a	b	c	d	a	b	c	d
1	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
INDIA	85	8	49	38	81	7	36	25	81	15	53	12	81	14	62	25
1 Andhra Pradesh ..	86	7	33	61	90	5	13	39	90	9	55	24	87	11	59	44
2 Assam	44	9	20	12	59	..	..	33	58	11	52	13	44	9	43	26
3 Bihar	90	7	50	44	78	1·6	44	28	93	11	69	11	91	10	78	24
4 Gujarat	91	13	61	24	79	33	61	25	87	25	62	14	86	27	66	18
5 Jammu and Kashmir ..	89	10	62	26	95	7	75	51	94	11	79	19	90	12	70	33
6 Kerala	80	20	38	17	64	13	15	15	91	9	58	17	83	11	56	21
7 Madhya Pradesh ..	94	5	52	55	94	1	18	35	95	6	69	17	94	8	79	31
8 Madras	67	5	42	37	70	4	25	27	61	9	49	11	64	9	56	35
9 Maharashtra	89	7	46	32	86	10	27	19	85	17	48	7	85	14	59	16
10 Mysore	89	7	39	47	86	6	12	21	91	9	53	15	88	14	66	34
11 Orissa	94	2·6	6	53	97	1	17	38	96	5	60	17	94	5	60	30
12 Punjab	94	11	77	42	75	4	23	32	85	23	54	12	85	24	62	23
13 Rajasthan	95	2·4	70	58	88	2	16	38	93	7	69	30	91	14	84	37
14 Uttar Pradesh	88	6	60	36	79	3	34	29	87	7	56	21	89	10	73	34
15 West Bengal	54	13	29	11	59	15	25	9	58	29	46	2	58	23	46	6

STATEMENT I.21

Grouping of urban areas of States by composite values of clusters of major groups of industrial classification

I Composite values for Major Groups 20, 21 and 22

A PERCENTAGE OF ELECTRICITY USE

1 Up to 20%	Assam, Bihar, Kerala, Madhya Pradesh, Orissa
2 20—40%	All India, Andhra Pradesh, Gujarat, Jammu and Kashmir, Maharashtra, Mysore, Rajasthan, Uttar Pradesh, West Bengal
3 Above 40%	Madras, Punjab

B PERCENTAGE OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 70% and below	Andhra Pradesh, Assam, Madras, West Bengal
2 Above 70%	All India, Bihar, Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh

C PERCENTAGE OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 Below 70%	Assam, Madras, West Bengal
2 Above 70%	All India and the remaining States

D PERCENTAGE OF WORKERS AT HOUSEHOLD INDUSTRY

1 Below 20%	Assam, Gujarat, Kerala, Punjab, West Bengal
2 20—40%	All India, Andhra Pradesh, Bihar, Jammu and Kashmir, Madras, Maharashtra, Mysore, Rajasthan, Uttar Pradesh
3 Above 40%	Madhya Pradesh, Orissa

II Composite values for Major Groups 23, 24, 25, 26 and 27

A PERCENTAGE OF ELECTRICITY USE

1 10% and below	All India, Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, West Bengal
2 Above 10%	Gujarat, Mysore, Punjab

B PERCENTAGE OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 Up to 50%	Andhra Pradesh, Assam, Jammu and Kashmir, Kerala, Madras, Orissa, Punjab, West Bengal
2 Above 50%	All India, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Mysore, Rajasthan, Uttar Pradesh

C PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 Below 70%	Assam, Madras, West Bengal
2 Above 70%	All other States

D PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1 Up to 20%	Gujarat, West Bengal
2 20—50%	All India, Bihar, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh
3 Above 50%	Andhra Pradesh, Assam, Madras, Mysore

III Composite values of Major Groups 29, 30, 32 and 33

A PERCENTAGE OF ELECTRICITY USE

1 Below 40%	All India, Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Rajasthan, Uttar Pradesh
2 Above 40%	Gujarat, Punjab, West Bengal

B PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 Below 40%	Andhra Pradesh, Assam, Jammu and Kashmir, Kerala, Madras, Maharashtra
2 40% and Above	All India, Bihar, Gujarat, Madhya Pradesh, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh, West Bengal

C PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 Below 70%	All India, Andhra Pradesh, Assam, Gujarat, Jammu and Kashmir, Madras, Maharashtra, Punjab, West Bengal
2 Above 70%	Bihar, Kerala, Madhya Pradesh, Mysore, Orissa, Rajasthan, Uttar Pradesh

STATEMENT I.21

Grouping of urban areas of States by composite values of clusters of major groups of industrial classification—contd.

III Composite values of Major Groups 29, 30, 32 and 33—*concld:*

D PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1 Below 10%	All India, Assam, Bihar, Gujarat, Kerala, Maharashtra, Punjab, West Bengal
2 Above 10%	Andhra Pradesh, Jammu and Kashmir, Madhya Pradesh, Madras, Mysore, Orissa, Rajasthan, Uttar Pradesh

IV Composite values for 28 and 31

A PERCENTAGE OF ELECTRICITY USE

1 10% and below	All India, Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Rajasthan, Uttar Pradesh
2 Above 10%	Gujarat, Kerala, Punjab, West Bengal

B PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 40% and below	Andhra Pradesh, Assam, Kerala, Mysore, Orissa, West Bengal
2 Above 40%	All India, Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Punjab, Rajasthan, Uttar Pradesh

C PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 70% and below	Assam, Madras, West Bengal
2 Above 70%	All India and all other States

D PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1 20 % and below	Assam, Kerala, West Bengal
2 20—40%	All India, Gujarat, Jammu and Kashmir, Madras, Maharashtra, Uttar Pradesh
3 Above 40%	Andhra Pradesh, Bihar, Madhya Pradesh, Mysore, Orissa, Punjab, Rajasthan

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V Composite values for 34—35

A PERCENTAGE OF ELECTRICITY USE

1 10% and below	All India, Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh
2 10—20%	Kerala, West Bengal
3 Above 20%	Gujarat

B PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 20% and below	Andhra Pradesh, Assam, Kerala, Madhya Pradesh, Mysore, Orissa, Rajasthan
2 20—40%	All India, Madras, Maharashtra, Punjab, Uttar Pradesh, West Bengal
3 Above 40%	Bihar, Gujarat, Jammu and Kashmir

C PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 70% and below	Assam, Kerala, Madras, West Bengal
2 Above 70%	All India, Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh

D PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1 20 % and below	Kerala, Maharashtra, West Bengal
2 20—40%	All India, Andhra Pradesh, Assam, Bihar, Gujarat, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh
3 Above 40%	Jammu and Kashmir

VI Composite values for 36, 37, 38 and 39

A PERCENTAGE OF ELECTRICITY USE

1 10% and below	Andhra Pradesh, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Rajasthan, Uttar Pradesh
2 10—20%	All India, Assam, Bihar, Jammu and Kashmir, Maharashtra
3 Above 20%	Gujarat, Punjab, West Bengal

B PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1 40—60%	All India, Andhra Pradesh, Assam, Kerala, Madras, Maharashtra, Mysore, Orissa, Punjab, Uttar Pradesh, West Bengal
2 Above 60%	Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Rajasthan

C PROPORTION OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1 50—80%	Assam, Madras, West Bengal
2 Above 80%	All India, Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh

STATEMENT I.21

Grouping of urban areas of States by composite values of clusters of major groups of industrial classification—concld.

VI Composite values for 36, 37, 38 and 39—concld.

D PROPORTION OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1	0—10%	Maharashtra, West Bengal
2	11—20%	All India, Assam, Bihar, Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab
3	21—30%	Andhra Pradesh, Rajasthan, Uttar Pradesh

VII Composite values for all groups

A PERCENTAGE OF ELECTRICITY USE

1	0—10%	Assam, Bihar, Madhya Pradesh, Madras, Orissa, Uttar Pradesh
2	11—20%	All India, Andhra Pradesh, Jammu and Kashmir, Kerala, Maharashtra, Mysore, Rajasthan
3	21—30%	Gujarat, Punjab, West Bengal

B PERCENTAGE OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS USING ELECTRICITY

1	40—60%	Andhra Pradesh, Assam, Kerala, Madras, Maharashtra, Orissa, West Bengal
2	61—80%	All India, Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Mysore, Punjab, Uttar Pradesh
3	Above 80%	Rajasthan

C PERCENTAGE OF SMALL ESTABLISHMENTS TO TOTAL ESTABLISHMENTS

1	44—80%	Assam, Madras, West Bengal
2	81—90%	All India, Andhra Pradesh, Gujarat, Jammu and Kashmir, Kerala, Maharashtra, Mysore, Punjab, Uttar Pradesh
3	Above 90%	Bihar, Madhya Pradesh, Orissa, Rajasthan

D PERCENTAGE OF WORKERS AT HOUSEHOLD INDUSTRY TO TOTAL WORKERS

1	0—20%	Gujarat, Maharashtra, West Bengal
2	21—40%	All India, Assam, Bihar, Jammu and Kashmir, Kerala, Madhya Pradesh, Madras, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh
3	Above 40%	Andhra Pradesh

I. The strength of the unorganised sector in rural India

Minor Groups of industries

Minor groups of industries each of which has a strength of more than 1,000 workshops and factories for all India rural can be divided into convenient groups according to the proportion of establishments in the unorganised sector in each related to the proportion of unorganised workers at household industry to total workers. The following grouping will be of interest :

STATEMENT I.22

I Minor groups of the industrial classification in each of which the proportion of small establishments employing 1-5 persons in the unorganised sector is more than 90 per cent and is matched by an equally high proportion of workers at household industry to total workers

I.S.I.C. Minor Group	Description	Proportion of establishments employing 1-5 persons to total establishments	Proportion of workers at household industry to total workers
1	2	3	4
206	Dairy products	95·86	92·86
207	Edible fats and oils	96·04	90·43
231	Cotton spinning (other than in mills)	98·60	96·90
238	Cotton nets	98·98	93·22
239	Cotton, cordage, rope and twine	96·53	93·52
244	Jute and other fibre, cordage, ropes and twines	96·63	94·38
255	Wool weaving in handlooms	98·15	97·30
288	Cork, bamboo, cane, leaves etc.	97·65	96·04
311	Shoes and leather footwear	99·15	93·06
350	Earthenware and earthen pottery	97·30	96·50

STATEMENT I.23

II Minor groups in which both the proportion of small unorganised establishments and that of workers at household industry are more than 70 per cent but are not more than 90 per cent in both

I.S.I.C. Minor Group	Description	Proportion of establishments employing 1-5 persons to total establishments	Proportion of workers at household industry to total workers
1	2	3	4
045	Rearing of silk worms etc.	97·03	88·19
202	Indigenous sugar etc.	82·04	82·15
209	Confectionery	96·55	83·60
233	Cotton, dyeing, bleaching	86·92	89·99
235	Cotton weaving in handlooms	89·93	96·51
236	Khadi textiles in handlooms	93·03	88·26
262	Silk spinning other than in mills	82·82	91·67
264	Silk weaving in handlooms	85·78	88·19
270	Carpets	78·14	82·39
273	Textile garments	94·14	72·36
277	Coir and coir products	77·96	83·95
282	Structural wooden goods	93·92	77·86
283	Wooden industrial goods	99·53	89·54
284	Wooden utensils, toys, artwares	98·29	82·66
289	Miscellaneous wood and allied products	98·79	76·82
310	Currying, tanning and finishing of hides and skins	95·21	86·81
313	Leather products	98·48	76·08
314	Repair of shoes and other leather footwear	97·32	76·08
355	Earthen image, busts, statues	93·48	76·80
365	Brass and bell metal products	92·25	74·29
369	Sundry hardwares	95·18	82·30
389	Animal and hand drawn vehicles	88·96	85·20
393	Jewellery	96·07	84·49
394	Musical instruments	95·28	73·57

This collection of minor groups represents those industries in rural India in which the small unorganised workshop is overwhelmingly predominant but in which an appreciable proportion of workers work on wage basis in medium sized workshops and large factories.

STATEMENT I.24

III Minor groups in which the proportion of unorganised workers at household industry to total workers is between 30 and 70 per cent

I.S.I.C. Minor Group	Description	Proportion of establishments employing 1-5 persons to total establishments	Proportion of workers at household industry to total workers
1	2	3	4
204	Slaughtering, preservation of meat and fish etc.	82·12	57·33
205	Bakery products	87·72	38·00
214	Aerated and mineral water	88·59	60·17
230	Cotton ginning, cleaning, pressing, baling	79·53	50·78
281	Wooden furniture and fixtures	95·54	65·12
333	Ammunition, explosives and fire works	90·97	30·84
335	Medicines pharmaceutical products etc.	93·10	50·44
342	Lime	85·70	60·10
348	Mica products	93·99	42·89
367	Tin and other metal products	93·28	51·24
368	Enamelling, galvanising, plating, polishing, welding etc.	94·01	39·68
388	Repair of bicycles and tricycles	80·89	38·40
399	Miscellaneous goods	93·04	51·16

This cluster of minor groups represents those industries in rural India in which the proportion of small unorganised factories is still quite large but in which a very substantial proportion of workers work on wage basis or in medium and large workshops and factories.

STATEMENT I.25

IV Minor groups in which the proportion of unorganised workers at household industry to total workers is less than 30 per cent

I.S.I.C. Minor Group	Description	Proportion of establishments employing 1-5 persons to total establishments	Proportion of workers at household industry to total workers
1	2	3	4
212	Indigenous liquor	94·34	16 01
217	Tea	9·18	..
222	Cigarette and cigarette tobacco	95·76	0·53
280	Sawing and planing of wood	76 84	26·57
340	Bricks, tiles etc.	63 25	26·91
343	Structural stone goods etc	69·69	24·47
384	Repairing and servicing of motor vehicles	72·84	6 05

This cluster of minor groups represents those industries in rural India in which the proportion of unorganised small establishments is large but the majority of workers work on wage basis in large organised establishments.

J. Versatility of the Household Industry Sector

It will be recalled that a block of questions on household industry was asked in the Household Schedule which was canvassed in the Population Census of 1961. This block of questions on household industry was phrased as follows :

B. Household Industry

Household Industry (not only the scale of a registered factory) conducted by the Head of the household himself and/or mainly members of the household at home or within the village in rural areas and only at home in urban areas.

Nature of industry	Number of months in the year during which conducted.
(a)	
(b)	

This Household Schedule was canvassed in all households but the tabulation was confined to a systematic sample of (with a randan start) only 20 per cent of schedules. In order to obtain the full spectrum of the versatility of the household industry sector a four-digit code was adopted to extend the standard three-digit code of the Industrial classification. Union Table B-XIV Part B has been constructed on this material. Table I·1 gives an extract on the all India level of Union Table B-XIV Part B which gives a full account of the entire range of household industry and the number of households in rural and urban areas engaged in each kind.

The following statement gives a summary of those industries which are pursued by more than 4,000 households each or over 0·5 per cent of total households in India engaged in household industry :

STATEMENT I.26

Household industries in descending order of number of households engaged in each (Lower limit : Total of 4,000 households)

ALL INDIA

[Abstract of Union Table B-XIV Part B]

Rank	Code No. of I.S.I.C.	Description	Number of households		
			Total	Rural	Urban
1	2	3	4	5	6
		Total of all households engaged in household industry—all India	**788,703**	**592,400**	**196,303**
1	2350	Cotton cloth weaving in handlooms	133,789	88,565	45,224
2	0405	Production and rearing of livestock mainly for milk and animal power n.e.c.	51,641	45,734	5,907
3	3111	Leather boots, shoes or chappals (slippers, sandals)	45,762	36,701	9,061
4	2732	Traditional garments	45,447	30,807	14,640
5	3500	Earthenware such as pottery etc.	38,343	32,871	5,472
6	2200	Manufacturing of bidi	37,649	22,939	14,710
7	2885	Baskets and broomsticks	29,521	25,002	4,519
8	3932	Goldsmithy	27,958	18,982	8,976
9	2310	Cotton spinning (by charkha and takali)	21,504	15,520	5,984
10	2849	Other wooden products n.e.c.	16,274	12,532	3,742
11	3698	Foundry industry (including blacksmithy)	15,430	12,247	3,183
12	2883	Mats, handfans, and umbrellas from palm leaves	14,606	12,936	1,670
13	2831	Carpentry works concerned with repairs of agricultural implements (wood)	13,366	11,864	1,502
14	2070	Oil pressing ghani, kolhu or by small machines	13,324	11,411	1,913
15	2889	Other articles from leaf, cane, bamboo, cork and other allied products n.e.c.	11,482	9,663	1,819
16	2092	Sweet-meats, laddu, peda, barphi, batasa etc.	11,385	7,172	4,213
17	3691	Agricultural implements such as ploughshare, khurpi, kudal etc.	11,327	10,307	1,020
18	2773	Coir spinning	10,668	9,660	1,008
19	2006	Parching of grains	9,468	8,361	1,107
20	3102	Currying, tanning and finishing of hides and skins, preparation of finished leather	8,957	7,518	1,439
21	2894	Other wood and allied products n.e.c.	8,190	7,329	861
22	2810	Wooden furniture and fixtures	7,659	5,769	1,890
23	0411	Sheep breading and rearing	6,803	6,542	261
24	2734	Textile garments including raincoats and head-gear n.e.c.	5,648	3,700	1,948
25	2002	Hand pounding of rice by dhekhi or ukhal	5,402	4,778	624
26	2771	Coir matting, cactus fibre for ropes and rope making from coconut fibre	5,348	4,924	424
27	3933	Jewellery, silverware, and wares using gold and other precious metal and precious and semi-precious stones	5,257	3,537	1,720
28	2886	Donas (drone) and pattals (patravali) from leaves	5,070	4,381	689
29	2882	Rope mats etc., from moonj and sawai grass and making of cadjar for thatching purposes	4,706	3,969	737
30	0401	Rearing of goats for milk and animal power	4,689	4,425	264
31	2060	Butter, cream, ghee, cheese, chhana, khowa and other dairy products	4,608	3,241	1,367
32	2023	Jaggery from coconut and palmyra juice (neera)	4,533	4,323	210
33	2642	Weaving of silk and artificial silk in handloom n.e.c.	4,439	1,350	3,089
34	2001	Production of flour by village chakkies or flour mill by grinding wheat, maize, gram etc.	4,355	3,439	916
35	0310	Production of fish by fishing in inland waters and ponds including fish farms and fish hatcheries	4,079	3,588	491
36	2820	Structural wooden goods (including treated timber) such as beams, posts, doors, windows	4,055	3,087	968

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
	ALL INDUSTRIES	**788,703**	**592,400**	**196,303**
0051	Production of vegetables	368	292	76
0052	Production of roots etc., not included above	13	13	..
0061	Production of fruits and nuts in plantation, vines and orchards	229	207	22
0062	Production of copra (from coconuts)	259	227	32
0071	Production of thatching grass	7	4	3
0072	Production of wood, bamboo, cane reeds, etc. (excluding thatching grass)	103	90	13
0081	Production of juice (neera) by tapping coconut trees	134	133	1
0082	Production of juice by tapping other palms like date, palmyra n.e.c.	850	797	53
0090	Production of other agricultural produce (including fruits and nuts not covered by 006 and flowers) not covered above	325	237	88
0130	Production of tobacco in plantation	31	30	1
0151	Pan cultivation	147	145	2
0152	Plantation crops except tea, coffee, rubber, tobacco, ganja, cinchona, opium and pan	22	20	2
0231	Production of charcoal	581	536	45
0232	Production of other fuels by exploitation of forests	70	65	5
0240	Production of fodder by exploitation of forests	5	4	1
0251	Production of kathha	275	271	4
0252	Production of lac	33	30	3
0253	Production of gum	46	44	2
0254	Production of resins, barks, herbs, wild fruits, berries and leaves etc., n.e.c.	177	162	15
0260	Production and gathering of other forest products not covered above	112	109	3
0300	Production of fish by fishing in sea	1,145	976	169
0310	Production of fish by fishing in inland waters and ponds including fish farms and fish hatcheries	4,079	3,588	491
0320	Production of pearls, conch, shells, sponges, sea herbs, corals etc. by gathering or lifting from sea, river pond	75	68	7
0401	Rearing of goats for milk and animal power	4,689	4,425	264
0402	Rearing of buffaloes for milk and animal power	1,346	952	394
0403	Rearing of cows for milk and animal power	3,110	2,494	616
0404	Rearing of camels and other big domestic animals	104	89	15
0405	Production and rearing of livestock mainly for milk and animal power n.e.c.	51,641	45,734	5,907
0411	Sheep breeding and rearing	6,803	6,542	261
0412	Production of wool	379	345	34
0421	Rearing and production of pigs and goats (mainly for slaughter)	2,573	2,350	223
0422	Rearing and production of other animals (mainly for slaughter) n.e.c.	86	77	9
0431	Poultry keeping and production of eggs	734	558	176
0432	Rearing and production of ducks, hens etc. and other small birds e.g., pigeons, parrots, peacock, maina etc.	1,186	1,046	140
0441	Bee keeping for production of honey and wax	137	122	15
0442	Collection of wax and honey	79	76	3

TABLE I.1

Extracts from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
0450	Rearing of tassar/eri/mulberry and other silk worms and production of cocoons and raw silk	1,613	1,499	114
0461	Dog breeding, rearing of rabbits and guinea-pigs	4	3	1
0462	Rearing of other small animals and insects n.e.c.	9	9	..
0481	Collection of bones	21	13	8
0482	Manufacture of glue from animal carcasses	3	2	1
0483	Manufacture of gut	6	..	6
0484	Production of other animal husbandry products such as skin, ivory, teeth and hair etc.	154	105	49
1071	Extraction of chalk	13	9	4
1072	Quarrying of lime-stone	37	30	7
1073	Stone and slate quarrying	697	624	73
1074	Quarrying of sand, clay, gravel etc., n.e.c.	118	101	17
2001	Production of flour by village chakkies or flour mill by grinding wheat, maize, gram etc.	4,355	3,439	916
2002	Hand pounding of rice by dhekhi or ukhal	5,402	4,778	624
2003	Production of rice by milling, dehusking and processing of paddy by rice mill	449	339	110
2004	Grinding of chillies, turmeric etc.	50	37	13
2005	Production of pulses	188	39	149
2006	Parching of grains	9,468	8,361	1,107
2007	Production and processing of other crops and food grains n.e.c.	514	445	69
2021	Gur and khandsari making from sugarcane and palm	3,164	2,888	276
2022	Production of boora and candy	268	252	16
2023	Production of jaggery from coconut and palmyra juice (neera)	4,533	4,323	210
2024	Production of other indigenous products from sugar and jaggery n.e.c.	89	83	6
2031	Manufacture of achar, pickles, chutney and murabba	31	11	20
2032	Production of sauce, jam and jelly	6	3	3
2033	Processing of cashew nut	216	181	35
2034	Manufacture of kokam products	12	11	1
2035	Fruit preservation (canning of fruits)	2	2	..
2036	Making dried vegetables	3	3	..
2037	Production of other fruit products and preservation of fruits, n.e.c.	36	15	21
2041	Slaughtering, preservation of meat and fish and canning of fish	932	726	206
2042	Fish currying or curing and salting (currying applies more to skin and hide)	1,137	1,058	79
2050	Production of bread, biscuit, cake and other bakery products	1,235	428	807
2060	Production of butter, cream, ghee, cheese, chhana, khowa and other dairy products	4,608	3,241	1,367
2070	Oil pressing ghani, kolhu or by small machines	13,324	11,411	1,913
2091	Confectionery	170	106	64
2092	Making of sweet-meats, laddu, peda, barphi, batasa etc.	11,385	7,172	4,213
2093	Sattu, bhunja, papar, barri, danauri, tilauri, sewai, apalam etc.	2,632	1,751	881
2094	Making of chura or chira, muri, murki, khoi	3,179	2,919	260
2095	Making of chat	429	158	271

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20 % Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
2096	Making of dalmot, chanachur (jor) garam, rewari etc. ..	567	271	296
2097	Making of other food products for residuary snacks ..	2,194	1,514	680
2098	Production of other food products like cocoa, chocolate, toffee, lozenge	85	37	48
2101	Manufacture of vinegar from coconut juice (neera)	16	14	2
2102	Manufacture of distilled spirits, wines, liquor from alcoholic malt, fruits and malts in distillery and brewery	68	58	10
2110	Production of country liquor from material obtained from sources other than trees and shrubs	62	60	2
2121	Production of indigenous liquor such as liquor, toddy, neera from mahua and palm trees	1,115	977	138
2122	Production of other indigenous liquors from other materials from trees and shrubs	50	49	1
2141	Production of mineral water	12	5	7
2142	Production of aerated water such as sodawater, lemonade etc.	780	459	321
2150	Production of ice	76	39	37
2160	Production of ice cream, ice-candy or kulphimalai, milk-shake etc.	82	14	68
2180	Grinding of coffee	19	6	13
2191	Preparation of sharbats and squashes	13	3	10
2192	Preparation of jeerapani	3	2	1
2193	Production of other beverages n.e.c.	15	11	4
2200	Manufacture of bidi	37,649	22,939	14,710
2210	Manufacture of cigars and cheroots	682	485	197
2230	Manufacture of hookah tobacco	148	82	66
2240	Manufacture of snuff	55	32	23
2250	Manufacture of jerda, kimam, khaini and other chewing tobacco	37	18	19
2260	Manufacture of other tobacco products n.e.c.	58	33	25
2300	Cotton ginning, cleaning, carding, pressing and baling ..	3,120	1,939	1,181
2310	Cotton spinning (by charkha and takali)	21,504	15,520	5,984
2331	Dyeing of cloth (cotton) and yarn	3,146	1,591	1,555
2332	Bleaching of cloth (cotton) and yarn	101	47	54
2333	Tie and dye (bandhani) of cloth and yarn	989	706	283
2340	Cotton cloth weaving in powerlooms	405	97	308
2350	Cotton cloth weaving in handlooms	133,789	88,565	45,224
2360	Manufacture of khadi textile in handlooms	1,234	1,088	146
2370	Printing of cloth (cotton)	2,707	522	2,185
2381	Making of fishing net	2,821	2,607	214
2382	Making of mosquito net	42	20	22
2383	Making of other nets	931	722	209
2391	Making of sacred thread	63	33	30
2392	Making of thread, rope, cordage and twine (cotton) ..	1,603	1,249	354
2400	Jute pressing and baling	25	20	5
2410	Jute spinning and weaving of mats, asanis etc..	519	448	71
2420	Dyeing and bleaching of jute	31	30	1
2441	Making of rope and cordage out of hemp	2,538	2,258	280

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20 % Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
2442	Making of rope and cordage, out of jute	1,494	1,287	207
2443	Making of rope by palm fibre	297	275	22
2444	Making of rope by date palm fibre	135	107	28
2445	Making of fibre, sunn-hemp fibre	746	721	25
2446	Making of other products from jute and similar fibres such as hemp, mesta	416	347	69
2500	Wool baling and pressing	38	29	9
2510	Cleaning, sorting, carding, scouring and processing of wool	103	74	29
2530	Spinning of wool by charkha or takali	1,808	1,409	399
2540	Weaving of woollen cloth in powerloom such as blankets, asanis etc.	276	210	66
2550	Weaving of woollen cloth in handloom such as blankets, rugs, pashmina, thulma, gudma etc.	2,950	2,400	550
2561	Embroidery with various colours, combinations of various thread and art work in woollen textile	109	15	94
2562	Shawls (with traditional borders)	21	16	5
2610	Dyeing and bleaching of silk	18	2	16
2621	Spinning of tussar, other than in mills	123	114	9
2622	Spinning of eri, other than in mills	28	10	18
2623	Spinning of silk other than in mills n.e.c.	321	154	167
2631	Weaving of traditional silk (atlas) by powerloom	57	20	37
2632	Weaving of tussar by powerloom	30	25	5
2633	Weaving of eri by powerloom	2	2	..
2634	Weaving of silk and artificial silk in powerloom n.e.c.	109	31	78
2641	Weaving of mashru, himroo, brocade, kinkhab by handloom	584	58	526
2642	Weaving of silk and artificial silk in handloom n.e.c.	4,439	1,350	3,089
2650	Printing of silk textile	32	5	27
2661	Goaf making	8	3	5
2662	Making of silk cordage, rope and twine n.e.c.	61	33	28
2701	Making of durries	1,308	728	580
2702	Making of carpets and druggets	1,738	1,323	415
2703	Manufacture of other similar textile products n.e.c.	24	16	8
2711	Making of hosiery goods such as banyans, socks, sweaters, mufflers etc.	584	330	254
2712	Making of nalas and azarbands	218	173	45
2713	Making of parandas and chootelas	273	196	77
2714	Manufacture of hosiery and other knitted fabrics and garments n.e.c.	112	52	60
2721	Embroidery and making of phulkari	158	54	104
2722	Making of jari thread, zardoshi	235	59	176
2723	Traditional embroidery	683	301	382
2724	Patch work embroidery	689	87	602
2725	Lace garland making	33	14	19
2726	Making of fringes and crepe laces	817	174	643
2727	Making of kargota, main garlands, shell garlands etc.	125	42	83
2728	Making of other embroidery products n.e.c.	1,074	709	365
2731	Making of cap, hat and other head-gear	386	238	148

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
2732	Traditional garments	45,447	30,807	14,640
2733	Chrochet work (bora caps)	36	29	7
2734	Making of textile garments including rain-coats and head-gears n.e.c.	5,648	3,700	1,948
2741	Weaving of khes, bed covers, curtains, pillow cases and table cloth, cloth bags etc.	545	282	263
2742	Making of newar	317	213	104
2743	Manufacture of other made up textile goods like mattress, quilt, rezai etc. n.e.c.	266	158	108
2750	Manufacture of waterproof textile products such as oil cloth, tarpauline etc.	9	6	3
2761	Making of namda felt	3	2	1
2762	Making of suzani (padded quilts)	7	4	3
2763	Processing of coconut fibre for upholstery	31	28	3
2764	Handicraft articles made of flax and fibre	86	84	2
2765	Manufacture and recovery of all types of fibres for purposes of padding, wadding and upholstery filling n.e.c.	106	54	52
2771	Manufacture of coir matting, cactus fibre for ropes and rope making from coconut fibre	5,348	4,924	424
2772	Making of brush, broom etc. from coconut fibre	139	42	97
2773	Coir spinning	10,668	9,660	1,008
2774	Coconut curing	258	252	6
2775	Other allied products of coir industry n.e.c.	35	22	13
2780	Manufacture and repair of umbrellas	288	230	58
2791	Making of daura (thread) batua, cotton thread buttons	189	109	80
2792	Manufacture of dolls and toys (rags and cotton)	74	32	42
2793	Manufacture of other textile products not elsewhere classified	153	57	96
2800	Sawing, planing and milling of wood	1,612	1,246	366
2810	Manufacture of wooden furniture and fixtures	7,659	5,769	1,890
2820	Manufacture of structural wooden goods (including treated timber) such as beams, posts, doors, windows	4,055	3,087	968
2831	Carpentry works concerned with repairs of agricultural implements (wood)	13,366	11,864	1,502
2832	Manufacture of wooden industrial goods other than transport equipment such as bobbin and similar equipments and fixtures	105	65	40
2841	Lacquerware (if on wood)	116	11	105
2842	Manufacture of wooden utensils, artware and decorative wooden boxes (patras)	142	81	61
2843	Manufacture of wooden toys	256	90	166
2844	Sandal wood and other wood carving	48	15	33
2845	Bead making from wood	20	18	2
2847	Marquetry boxes (inlay work)	27	8	19
2848	Manufacture of photo frames and framing of photo, paintings etc.	77	20	57
2849	Manufacture of other wooden products n.e.c.	16,274	12,532	3,742
2850	Manufacture of match splinters, plywood and veneers	34	27	7
2870	Manufacture of boxes and packing cases other than plywood	107	53	54

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
2881	Making of box from mooaj grass	804	582	222
2882	Making of rope mats etc. from moonj and sawai grass and making of cadjar for thatching purposes	4,706	3,969	737
2883	Making of mats, hand fans and umbrellas from palm leaves	14,606	12,936	1,670
2884	Making of sirki, moora and chhaj	2,873	1,937	936
2885	Making of baskets and broomsticks	29,521	25,002	4,519
2886	Making of donas (drone) and pattals (patravali) from leaves	5,070	4,381	689
2887	Caning of chairs	284	91	193
2888	Making of chicks, cuscus-tatti and fans, sticks and poles from bamboo	1,374	1,147	227
2889	Manufacture of other articles from leaf, cane, bamboo, cork and other allied products n.e.c.	11,482	9,663	1,819
2891	Making of sticks and poles from wood	81	71	10
2892	Making of wooden kharaus and other wooden sandals ..	67	57	10
2893	Making of cart wheels	702	551	151
2894	Manufacture of other wood and allied products n.e.c. ..	8,190	7,329	861
2910	Manufacture of pulp and paper by hand	49	26	23
2921	Making of envelopes and paper bags	171	33	138
2922	Papier mache articles	42	5	37
2923	Making of kite	83	27	56
2924	Paper decorations for homes	8	2	6
2925	Making of card-board boxes and cards	94	27	67
2926	Making of paper toys	44	15	29
2927	Making of paper flowers etc.	175	79	96
2928	Manufacture of other paper products from paper, paper board and pulp n.e.c.	218	106	112
3010	Printing and publishing of books	48	17	31
3021	Printing works, printing of handbills, invitation cards etc.	19	5	14
3022	Lithography, engraving, etching, block making, type cutting and other work connected with printing industry :	30	3	27
3030	Book binding, stitching, sizing and other works connected with book binding industry	275	33	242
3101	Flaying, processing of hides and skins including taxidermy	1,301	1,113	188
3102	Currying, tanning and finishing of hides and skins preparation of finished leather	8,957	7,518	1,439
3103	Stuffed animals	23	22	1
3111	Making of leather boots, shoes or chappals (slippers and sandals)	45,762	36,701	9,061
3112	Making of poola shoes	11	9	2
3113	Manufacture of other footwear n.e.c.	217	187	30
3120	Making of clothing and wearing apparel (except footwear) made of leather and fur	16	4	12
3130	Manufacture of leather products such as leather upholstery, suit cases, pocket-books, cigarette and key cases, purses, saddlery, whip, acquaducts (kos), charsa and other articles.	2,123	1,884	239
3140	Repair of shoes, chappals and other leather footwear ..	3,195	2,300	895

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
3150	Repair of all other leather products except footwear ..	240	226	14
3200	Vulcanising tyres and tubes	30	8	22
3210	Manufacture of chappals from torn tyres and other rubber footwear	29	12	17
3220	Manufacture of rubber products from natural and synthetic rubber including rain-coats, oil cloths, water proof cloths etc.	31	12	19
3311	Manufacture of dyes, paints, colours, abir, sindoor, varnish etc.	210	55	155
3312	Manufacture of indigo	4	1	3
3320	Manufacture of fertilizer (including from bones)	19	12	7
3330	Manufacture of fire works and other explosives such as pataka etc.	399	235	164
3340	Manufacture of matches	471	201	270
3351	Manufacture of incense and perfumes	86	13	73
3352	Manufacture of agarbatti	394	35	359
3353	Manufacture of rose water	17	7	10
3354	Manufacture of powder, snow, cream, bindi, tikali, hair oil and nail polish	98	28	70
3355	Manufacture of kumkum and hinglo	99	77	22
3356	Manufacture of mascara and kajal	30	14	16
3357	Manufacture of medicines (ayurvedic, unanni etc.) and pharmaceutical preparations	667	367	300
3358	Manufacture of perfumes, cosmetics and other toilet preparations n.e.c.	142	83	59
3361	Manufacture of soap and washing soda	342	94	248
3362	Manufacture of other washing and cleaning compounds n.e.c.	48	27	21
3371	Manufacture of plastic toys	16	1	15
3372	Making of plastic buttons	18	8	10
3373	Manufacture of other plastic goods	88	19	69
3374	Making of celluloid goods	2	..	2
3375	Manufacture of turpentine, synthetic resin and other materials n.e.c.	9	3	6
3380	Salt production	164	157	7
3391	Manufacture of ink including fountain pen ink	30	5	25
3392	Making of candles	27	7	20
3393	Making of tooth powder	38	15	23
3394	Making of boot polish and inedible oils etc.	7	4	3
3395	Manufacture of other chemicals products n.e.c.	166	138	28
3401	Making of bricks	2,648	2,273	375
3402	Manufacture of roofing tiles	531	399	132
3403	Manufacture of other clay products n.e.c.	221	201	20
3411	Manufacture of cement door frames and sanitary fittings	19	12	7
3412	Manufacture of cement jali and tiles	21	13	8
3413	Making of cement statues	1	1	...
3414	Making of cement products n.e.c.	67	31	36
3421	Manufacture of lishu	20	18	2
3422	Manufacture of lime	1,714	1,403	311

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
3431	Stone carving	162	126	36
3432	Marble carving	30	17	13
3433	Granite carving	3	3	—
3434	Manufacture of other structural stone goods, stone dressing and stone crushing n.e.c.	795	716	79
3440	Making of chakki, chakla, silaut, lorha, jainta, utensils and other articles from stone	553	487	66
3450	Manufacture of stone images and toys	99	34	65
3461	Making of images from soap stone	5	4	1
3462	Manufacture of images, toys and other articles of plaster of paris	5	..	5
3481	Mica splitting	281	239	42
3482	Manufacture of mica products, including mica grinding	22	21	1
3500	Making of earthenware such as pottery etc.	38,343	32,871	5,472
3510	Manufacture of crockery	56	40	16
3531	Making of glass bangles	1,535	437	1,098
3532	Making of glass beads	106	88	18
3533	Manufacture of bead garlands (where making of garlands is undertaken at the place of manufacture of beads)	4	4	..
3540	Manufacture of laboratory glass apparatus	9	4	5
3550	Making of clay models earthen images, busts and statues	431	305	126
3561	Making of earthen toys and artware	245	76	169
3562	Decorative ceramics	3	1	2
3570	Manufacture of glass and glass products, except optical and photographic lenses	143	37	106
3601	Re-rolling of M. S. Rods	24	14	10
3602	Manufacture of iron and steel including smelting, refining, rolling etc. such as billets, blooms, tubes, rods n.e.c.	80	40	40
3620	Manufacture of arms and weapons and their repair service	112	56	56
3640	Manufacture of iron and steel furniture	71	24	47
3651	Making of utensils of brass and bell metal	2,924	1,642	1,282
3652	Making of brassware	319	159	160
3653	Making of bottom part of hookah from brass and bell metal	21	6	15
3654	Making of brass and bell metal ornaments	252	96	136
3655	Making of other brass and bell-metal products n.e.c.	912	501	411
3661	Making of aluminium utensils	34	7	27
3662	Making of other aluminium products n.e.c.	17	4	13
3671	Making of tin utensils	328	142	186
3672	Making of articles from tin sheets	460	139	321
3673	Copper utensils	345	183	162
3674	Bronze works including bronze images, medals and articles of alloys	57	24	33
3675	Manufacture of other metal products (excluding iron brass, bell metal, aluminium) n.e.c.	972	249	723
3681	Lacquerware (if on metal)	6	4	2
3682	Nickel plating and electroplating	214	74	140

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—contd.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
3683	Engraving, embossing, polishing and welding of metal products	1,262	454	808
3684	Enamelling and galvanizing of metal products	150	106	44
3685	Plating and electroplating of metal n.e.c. including silver-plating, gold plating, E.P.N.S. etc.	128	70	58
3691	Manufacture of agricultural impliments such as plough-share, khurpi, kudal etc.	11,327	10,307	1,020
3692	Manufacture of light engineering goods including bolts and screws	140	117	23
3693	Making of iron utensils (*e.g.* buckets etc.) and articles from iron sheets	280	160	120
3694	Making and repairing of locks and trunks	1,146	450	696
3695	Cutlery	271	123	148
3696	Manufacture of pins	22	17	5
3697	Manufacture of scales, weights and measures	30	20	10
3698	Foundry industry (including blacksmithy)	15,430	12,247	3,183
3699	Manufacture of other sundry hardwares such as G. I. pipe, wire net etc. n.e.c.	2,270	1,947	323
3700	Manufacture of mechanical water pumps, tube well pumps, air pumps etc.	13	6	7
3720	Manufacture of small machine tools and machine parts	127	80	47
3730	Manufacture of sewing machine parts	62	27	35
3750	Repairing and servicing of fans	8	5	3
3760	Manufacture of insulated wires	2	2	..
3771	Manufacture of storage batteries	1	1	..
3772	Manufacture of charging batteries	3	..	3
3773	Manufacture of other batteries n.e.c.	7	2	5
3780	Repairing and servicing of radios	71	12	59
3791	Manufacture of domestic electrical appliances	11	4	7
3792	Repairing and servicing of electrical apparatus, heaters, oven etc.	34	10	24
3820	Manufacture of body of trucks and buses including car-pentry and joinery work involved	50	10	40
3840	Repairing and servicing of automobiles	119	17	102
3851	Manufacture of cycle parts and accessories, such as saddle, seat frame and gear etc.	109	62	47
3852	Manufacture of rickshaw parts	7	2	5
3860	Manufacture of boats and barges	13	10	3
3880	Repair of cycle and rickshaw	2,096	1,373	723
3890	Manufacture of animal drawn and hand drawn vehicles such as bullock cart, tam tam, lagadi, palaki cab, wheel-barrow, handbarrow etc.	419	277	142
3901	Repair of spectacles	22	7	15
3902	Manufacture of small photographic equipment	35	2	33
3903	Manufacture of optical and photographic equipment n.e.c.	17	2	15
3910	Manufacture of scientific goods	20	1	19
3920	Repairing and servicing of watches and clocks	348	114	234
3931	Inlay work with ivory and brass	144	125	19
3932	Goldsmithy	27,958	18,982	8,976

TABLE I.1

Extract from Union Table B-XIV—Sample households engaged only in household industry classified by principal household industry in all areas—concld.

Part B—Households classified by minor groups of principal household industry

(Based on 20% Sample)

ALL INDIA

Code No. of I.S.I.C.	Household Industry Minor Groups (Description)	Number of households		
		Total	Rural	Urban
1	2	3	4	5
3933	Manufacture of jewellery, silverware and wares using gold and other precious metal and precious and semi-precious stones	5,257	3,537	1,720
3934	Silver artware, including silver repousse work on copper (such as in Tanjore) and silver images	151	95	56
3935	Silver filigree industry	6	5	1
3936	Manufacture of gold and silver leaves	110	21	89
3937	Gold covering work (fancy jewellery)	17	3	14
3938	Bidriware industry	5	2	3
3939	Manufacture of jewellery, silverwares etc. n.e.c.	1,405	953	452
3940	Manufacture, repairing, tuning of musical instruments such as harmonium, tabla, sitar, bansuri etc.	801	485	316
3951	Manufacture of chalk pieces	5	3	2
3952	Making of slate and slate pencil	80	42	38
3953	Making of rubber stamps	25	5	20
3954	Manufacture of fountain pen parts	14	2	12
3955	Manufacture of other stationery articles such as pencils, penholders etc.	13	2	11
3961	Manufacture of deshi sports goods such as lezzim and dumballs	6	2	4
3962	Making of rubber balls and balloons	11	4	7
3963	Manufacture of other sports goods n.e.c. bats, rackets, balls etc.	41	3	38
3991	Making of tikka and cowdung cakes	1,116	832	284
3992	Making of beads from conch shells and horn goods	221	184	37
3993	Making of traditional objects such as Orissa, Mysore and Tanjore paintings etc.	55	27	28
3994	Making of lac bangles	1,002	715	287
3995	Making of buttons (bone, shell, ivory)	360	52	308
3996	Making of gangavan (making of wig from human hair)	101	51	50
3997	Making of garland from flowers, camphor, sandal wood shavings, seeds and other materials, like beads etc.	785	445	340
3998	Repair of petromax lights etc.	74	34	40
3999	Making and repairing of goods n.e.c.	3,136	2,047	1,089

CHAPTER II

THE TRADITIONAL SMALL ESTABLISHMENT SECTOR OF INDUSTRY IN RURAL AND URBAN AREAS

Pre-eminence of certain regions and districts in (a) *the number of workers in rural and urban areas and in* (b) *the number of establishments in one or other or both areas in certain Major groups of I.S.I.C.* (Strength of the traditional sector of industry)

IT MIGHT PROVE of considerable interest to identify those districts and regions which enjoy the twin distinction of having a high proportion of workers in rural and urban areas and a high proportion of establishments in the same rural or urban areas, or both in respect of each major group of I.S.I.C.

A. The method

To this end all the districts were first arranged into quartiles separately for rural and urban workers in each major group as proportion per 1,000 of all workers. In the next place, all districts were similarly arranged into quartiles separately for rural and urban establishments in each major group as proportion per 1,000 of all establishments. Thereafter, Q_4 values for rural workers for each major group were picked out as the master to which were ordered the Q_4 values for urban areas of the same major group for such districts as were available in that quartile. A scrutiny was then made to list as many districts as possible which had Q_4 values for establishments in the same major group. A final list was thereafter made of districts under a particular major group which enjoyed quartile 4 values in respect of both rural and urban workers and in respect of rural or urban establishments or both. The statements that follow are thus the result of the matching of twin values of workers and establishments which are both high in a particular district.

The most acceptable interpretation of the statements below seems to be that they primarily reflect the strength of the traditional industries and skills and the persisting vitality of the small establishment, mainly the single and 2-5 person groups. They also reflect how certain traditional industries have the strongest regional entrenchments either because of local availability of raw material or because of the building up of skills through generation of caste-occupations or because of their location in the most favourable positions of the communicational network.

On the other hand these statements do not reflect the strength of the modern sector, although in certain ways and in certain districts they reflect the support that the modern sector of organised industry provides to the traditional sector of largely self-owned or self-run industries.

Further, the statements also reflect in a way the effect of commutation of workers living in the village going to work in nearby urban areas. This will be particularly evident in respect of certain major groups like 21, 27, 29, 30, 32, 33, 36 and 38. It will be remembered in this connection that the sheet anchor of the Indian Census is to count each person in his home and not at his place of work.

Since Q_4 values for rural areas were made the master, they automatically eliminated the districts of Greater Bombay, Madras and Calcutta which have no rural areas. That the statements do not reflect the strength of the modern

organised sector will appear from the following facts :

(1) Districts in Andhra Pradesh, particularly in coastal Andhra and Telengana, Assam, Gujarat, Mysore and Punjab which have a fair share of medium and large mills engaged in the processing of food grains, manufacture of oil and sugar (major group 20) do not emerge in these statements.

(2) Districts which have large tobacco or cigarette factories (22) are similarly eliminated unless they are equally strong in the traditional sector. Examples of such districts are Hyderabad, Bareilly, 24-Parganas etc.

(3) Similar is the case with districts which have large modern cotton mills (major group 23). Ahmedabad provides a striking illustration as it finds no place in these statements. Similarly Sundargarh is not posted at all for its production of basic metals, while Baudh-Khondmals, which runs a large number of small native smelters enjoys distinction in major group 36. In the opposite way, certain districts which are not distinguished for their production either in major group 24 or 25 find prominent places in these statements because of the numerous small units which prevail in them (e.g., Kurnool, Medak and Nizamabad for major group 24 or Shahabad and Palamau for major group 25).

(4) The cluster of major groups which seems to reflect the actual distribution fairly correctly is composed of 29, 30, 32 and 33, for the reason that except for indigenous production of pharmaceutical products, cosmetics etc., (33) all the major groups are concerned with modern industry where not much of the traditional sector exists.

(5) Major group 28 again bears insufficient testimony to the actual state of affairs. For example, Kozhikode boasts of one of the largest timber yards in the world but because the sawing, milling and sizing of timber there is conducted mostly in large electrically or steam operated mills in a small number of large units employing a relatively small labour force Kozhikode does not find a place in the statement. Similarly, the omission of major group 31 against Kanpur, which enjoys some of the largest tanneries in the country, will be explained by the large size of the establishments in that district.

B. The delineation

We may now proceed to a delineation of regional pre-eminence of certain types of industry.

Major Group 20 : Foodstuffs

This major group is pre-eminent in three areas.

1 Uttar Pradesh

A. Naini Tal, Rampur, Bareilly, Pilibhit, Shahjahanpur, Kheri, Hardoi and Sitapur. This is the great grain and sugarcane belt in North Western Uttar Pradesh.

B. Rae Bareli, Gonda, Basti, Sultanpur, Pratapgarh, Jaunpur, Deoria and Ballia. This is the great grain and sugarcane belt in Eastern Uttar Pradesh.

2 Bihar

A. North Bihar

Champaran, Saran, Muzaffarpur, Saharsa, and Purnea. This tract is a continuation of Ballia and Deoria of Eastern Uttar Pradesh and extends to Jalpaiguri and West Dinajpur in West Bengal.

B. South Bihar

Shahabad, Palamau, Gaya, Patna and Santal Parganas. This is the second great belt of Bihar mainly concerned with foodgrains and oilseeds.

3 West Bengal

Jalpaiguri, West Dinajpur, Birbhum.

This listing hides more than it reveals. For example, it very effectively conceals the agriculturally prosperous zones of Punjab, Madhya Pradesh, Rajasthan, Coastal Orissa, Gujarat, Maharashtra, Andhra Pradesh, Mysore, Madras and Kerala where the largish or medium mill has replaced the manually worked traditional contraption.

Major Group 21 : Beverages

There are several distinct zones.

1 Bihar

Saran-Muzaffarpur-Patna-Gaya.
This is the region of toddy tapping.

2 Andhra Pradesh

East Godavari-West Godavari-Krishna-Nalgonda.

Another zone of indigenous liquor.

3 Mysore-Kerala-Madras

Chikmagalur, South Kanara and Coorg of Mysore for coffee curing; Kozhikode and Ernakulam for various ice factories etc.; Nilgiri of Madras and Kottayam of Kerala for tea and coffee; Madurai and Thanjavur for various ice factories etc.

Major Group 22: Tobacco

This prevails mainly in tracts where bidi is king.

1 Bihar

Darbhanga, Monghyr, Patna, Shahabad and Santal Parganas.

2 West Bengal

Jalpaiguri, West Dinajpur, Malda, Murshidabad, Birbhum and Purulia.

3 Madhya Pradesh

Rewa, Satna, Jabalpur, Damoh, Sagar, Raisen, Narsimhapur, Balaghat and Bhandara of Maharashtra.

4 Andhra Pradesh

Adilabad, Nizamabad.

5 Gujarat

Mehsana and Amreli.

6 Mysore-Kerala

South Kanara, Cannanore, Palghat and Trichur.

7 Andhra Pradesh-Madras

Chittoor and North Arcot.

Major Group 23: Cotton Textile

Here again several important handloom districts have not emerged, possibly on account of the limitation of collection, e.g. certain important and well known districts of Maharashtra, Madhya Pradesh, Orissa (Sambalpur and Ganjam), Rajasthan, Uttar Pradesh, Bihar (Darbhanga for example) and West Bengal (Hooghly and Midnapore).

1 Andhra Pradesh

Anantapur, Cuddapah, Nellore, Kurnool, Guntur, Mahbubnagar, Medak, Karimnagar and Warangal.

2 Madras

Kanyakumari, Ramanathapuram, Madurai, Coimbatore, Salem, South Arcot and Chingleput.

3 Mysore

Gulbarga, Bijapur and Belgaum.

4 Orissa

Bolangir and Baudh-Khondmals.

5 Uttar Pradesh-Punjab

Bara Banki.

6 Bihar

Bhagalpur.

7 West Bengal

Nadia.

8 Assam

Kamrup and Cachar.

Major Group 24: Jute and fibres

The more important regions are:

1 Andhra Pradesh

East Godavari, Visakhapatnam, Nizamabad, Medak, Kurnool and Guntur.

2 Orissa

Ganjam and Cuttack.

3 Punjab

Amritsar and Kapurthala.

4 Uttar Pradesh

Saharanpur, Muzaffarnagar, Bijnor, Moradabad, Kanpur and Allahabad.

5 West Bengal

West Dinajpur, Hooghly, Howrah and 24-Parganas.

Major Group 25: Wool

Here again Punjab is an important but understandable omission.

1 Mysore

Chitradurga, Tumkur, Kolar, Hassan, Mysore and Dharwar.

2 Andhra Pradesh

Anantapur, Mahbubnagar, Medak and Warangal.

3 Maharashtra

Bhir, Osmanabad, Satara and Thana.

4 Jammu and Kashmir

Srinagar, Anantnag, Poonch and Kathua.

5 Uttar Pradesh

Uttar Kashi, Almora, Muzaffarnagar and Varanasi.

Major Group 26: Silk

1 Assam

Kamrup and Lakhimpur.

2 Bihar

Bhagalpur.

3 Gujarat

Surat, Mehsana.

4 Madras

Madurai, Salem, North Arcot, Chingleput and Thanjavur.

5 Maharashtra

Thana and Jalgaon.

6 Mysore

Mysore, Mandya, Bangalore, Tumkur and Kolar.

7 Andhra Pradesh

Anantapur.

8 Uttar Pradesh

Azamgarh, Varanasi and Dehra Dun.

9 West Bengal

Malda, Murshidabad and Purulia.

Major Groups: 29, 30, 32, 33

The main zones are:

1 Assam

Kamrup and Darrang.

2 Bihar

Patna, Gaya and Dhanbad.

3 Gujarat

Bhavnagar, Kaira, Jamnagar, Kutch (Ahmedabad and Baroda are important but understandable omissions because of their large units).

4 Kerala-Mysore-Andhra Pradesh-Madras

Kozhikode, Palghat, Trichur, Ernakulam, Kottayam, Alleppey, Trivandrum and Quilon of Kerala; North Kanara, South Kanara, Coorg, Mysore, Bangalore and Kolar of Mysore; Chittoor of Andhra Pradesh; Nilgiri, Coimbatore, Madurai, Tirunelveli, Ramanathapuram, Thanjavur and Kanyakumari of Madras.

5 Madhya Pradesh

Indore and Ratlam.

6 Maharashtra

Thana, Poona, Ratnagiri and Kolaba.

7 Punjab-Delhi-Uttar Pradesh

Amritsar, Kapurthala, Jullundur, Hoshiarpur, Simla, Ambala and Gurgaon of Punjab; Delhi; Dehra Dun, Meerut, Mathura, Agra, Jalaun and Kanpur of Uttar Pradesh.

8 West Bengal

Purulia, Burdwan, Hooghly, Howrah and 24-Parganas.

Major Group 28: Wood

This is a very limited delineation and fails to reflect significant distribution. The main regions are:

1 Madhya Pradesh

Datia, Tikamgarh, Chhatarpur, Panna and Rewa.

2 Orissa

Keonjhar and Dhenkanal.

Major Group 31: Leather

The delineation here seems to be more concerned with flaying, currying and tanning of hides and skins than with the other uses of hides and leather. The zones are:

1 Jammu and Kashmir-North Punjab and Himachal Pradesh

Poonch and Kathua of Jammu and Kashmir; Kangra and Simla of Punjab; Chamba, Mandi, and Mahasu of Himachal Pradesh,

2 Punjab-Rajasthan-Madhya Pradesh

Sangrur, Hissar, Rohtak, Mahendragarh and Gurgaon of Punjab; Churu, Jhunjhunu, Jaipur, Jaisalmer, Barmer, Jodhpur, Pali, Sirohi, Udaipur, Chitorgarh and Jhalawar of Rajasthan; Mandsaur, Dhar, Vidisha, and Mandla of Madhya Pradesh.

3 Maharashtra

Bhir and Osmanabad.

Major Groups: 34-35

The delineation here is by no means exhaustive. The important zones are:

1 Gujarat

Kaira and Panchmahals.

2 Madhya Pradesh-Rajasthan

Mandsaur, Dhar, Morena, Bhind and Datia of Madhya Pradesh; Banswara, Pali, Udaipur, Jhalawar and Bharatpur of Rajasthan.

3 Uttar Pradesh

Mainpuri, Agra and Mirzapur.

4 Bihar

Shahabad, Gaya, Palamau, Hazaribagh and Ranchi.

5 Mysore

Shimoga, Chikmagalur, Hassan, Coorg (It should be noted that Dharwar, South and North Kanara or Cannanore do not figure in this list).

6 Madras

Tiruchirapalli.

Major Groups: 36-39

The main zones are:

1 Assam

Lakhimpur and Sibsagar.

2 West Bengal

Darjeeling, Jalpaiguri, Burdwan, Midnapore, Howrah, 24-Parganas and Purulia.

3 Bihar

Ranchi and Singhbhum.

4 Madhya Pradesh

Raipur, Durg, Betul and Ratlam.

5 Orissa

Keonjhar, Dhenkanal, Baudh-Khondmals and Sundargarh.

6 Jammu and Kashmir-Punjab-Himachal Pradesh

Jammu of Jammu and Kashmir; Gurdaspur, Jullundur, Ludhiana, Kapurthala, Patiala, Ferozepur, Sangrur, Hissar and Ambala of Punjab; Sirmur of Himachal Pradesh.

7 Uttar Pradesh

Dehra Dun, Almora, Naini Tal, Bareilly, Hamirpur, Kanpur, Rae Bareli, Lucknow, Gorakhpur and Mirzapur.

8 Maharashtra

Thana, Kolaba, Poona and Ahmadnagar,

9 Gujarat

Baroda.

10 Mysore

Shimoga and Bangalore.

11 Andhra Pradesh

Hyderabad.

12 Madras

South Arcot and Tiruchirapalli.

Minor Group 393 : Jewellery

The manufacture of jewellery is concentrated in the following zones :

1 Rajasthan

Churu, Jhunjhunu, Sikar, Jodhpur, Barmer, Sirohi, Udaipur, Dungarpur, Chitorgarh and Kota.

2 Uttar Pradesh

Aligarh, Mathura, Jalaun, Gonda, Basti and Jaunpur.

C. Concluding remarks

Several broad zones of heavy concentration of various types of traditional industry and employment thus emerge on the map of India. These are :

1 Gujarat-South Rajasthan-West Madhya Pradesh

This zone consists of the inland and peninsular districts of Gujarat; Jhabua, Dhar, Indore, Ratlam and Mandsaur of Madhya Pradesh; Jaisalmer, Barmer, Jodhpur, Pali, Sirohi, Udaipur, Dungarpur, Banswara, Chitorgarh, Jhalawar and Kota of Rajasthan.

2 Jammu and Kashmir-Punjab-Himachal Pradesh-Uttar Pradesh

Most districts in these states except the following :

Baramulla and Udhampur of Jammu and Kashmir; Bhatinda, Karnal of Punjab; Bilaspur and Kinnaur of Himachal Pradesh; Uttar Kashi, Chamoli, Garhwal, Pithoragarh, Bulandshahr, Etah, Farrukhabad, Etawah, Unnao, Fatehpur, Banda, Faizabad and Bahraich of Uttar Pradesh.

3 North Rajasthan

Churu, Jhunjhunu, Sikar, Jaipur and Bharatpur.

4 Bihar-Orissa-West Bengal-Assam

All districts of Bihar; Sundargarh, Sambalpur, Baudh-Khondmals, Ganjam, Dhenkanal, Cuttack and Keonjhar of Orissa; all districts of West Bengal except Bankura; Kamrup and Lakhimpur of Assam.

5 Western Ghats-Western and Southern Mysore-Madras

Thana, Kolaba, Ahmadnagar, Satara, Ratnagiri and Kolhapur of Maharashtra; Belgaum, North Kanara, South Kanara, Shimoga, Chikmagalur, Hassan, Tumkur, Kolar, Bangalore, Mandya and Mysore of Mysore; the whole of Kerala; the whole of Madras.

6 Andhra Pradesh

Adilabad, Nizamabad, Karimnagar, Medak, Hyderabad, Warangal, Mahbubnagar, Kurnool, Guntur and Anantapur.

The great land mass of Central India, part of the Deccan and the Eastern Coast are relatively deficient.

TABLE II.1

Districts classified by States, in which the high proportion of workers (Quartile 4 values) in rural and urban areas in at least two major groups of I.S.I.C is matched by a comparably high proportion (Quartile 4 values) of establishments in rural and urban areas in that major group

State/District	Food, beverages and tobacco 20,21,22	Textile and fibres 23,24,25, 26, 27	Paper, printing, rubber, petroleum, coal and chemicals and chemical products 29,30,32,33	Wood and leather 28,31	Non-metallic minerals 34-5	Metals machinery and miscellaneous 36,37,38,39
1	2	3	4	5	6	7
ANDHRA PRADESH						
Visakhapatnam		24		28		
East Godavari	21	24				
Guntur		23,24				
Chittoor	22		30			
Anantapur		23,25,26				
Kurnool		23,24				
Mahbubnagar		23,25				
Hyderabad			30,33			37,38
Medak		23,24,25,26				
Nizamabad	22	24				
Adilabad	22		29			
Warangal	21	23,25				
ASSAM						
Kamrup		23,26	30			
Darrang			30			38
Lakhimpur		26	32			38
BIHAR						
Patna	20,21,22		30			
Gaya	20,21		29		34—5	
Shahabad	20,22	25			34—5	
Saran	20,21	24				
Muzaffarpur	20,21					
Darbhanga	21,22					
Bhagalpur		23,26	29			
Purnea	20	24				
Santal Parganas	20,22					
Palamau	20	25			34—5	
Ranchi					34—5	36
Dhanbad			32,33		34—5	
Singhbhum			32			37
GUJARAT						
Bhavnagar			32,33			
Mehsana	22,23	26				
Kaira			32		34—5	
Panchmahals		27			34—5	
Baroda			32,33			37
Surat		26,27				
JAMMU AND KASHMIR						
Srinagar		25,26,27		28		
Jammu			30			36
Kathua		25		31		
Poonch		25		31		

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State/District	Food, beverages and tobacco 20,21,22	Textile and fibres 23,24,25 26,27	Paper, printing, rubber, petroleum, coal and chemicals and chemical products 29,30,32,33	Wood and leather 28,31	Non-metallic minerals 34—5	Metals machinery and miscellaneous 36,37,38,39
1	2	3	4	5	6	7
KERALA						
Cannanore	22	23				
Kozhikode	21	27	30,32,33			
Palghat	22		30,32,33			
Trichur	22		30,32,33			
Ernakulam	21		30,32,33			38
Kottayam	21		30,32,33			38
Alleppey		27	32			
Quilon			30,32			
Trivandrum		27	30,32			
MADHYA PRADESH						
Datia				28	34—5	
Satna	22				34—5	
Rewa	22			28		
Shahdol		25	33		34—5	
Mandsaur		25		31	34—5	
Ratlam		25	29			36
Dhar		27		31	34—5	
Shajapur				31	34—5	
Vidisha				31	34—5	
Narsimhapur	22			28		
Mandla	21			28,31		
Surguja			33			39
Bilaspur	22					39
Durg						36,37
Raipur	20		33			37
MADRAS						
Chingleput		23,26				
North Arcot	22	26				
South Arcot		23				38
Salem		23,26				
Coimbatore		23	32			
Nilgiri	21		30,32,33			
Madurai	21	23,26	30			38
Tiruchirapalli					34—5	38
Thanjavur	21	26	30,33			38
Ramanathapuram		23	30,33			
Tirunelveli	22	24	33			
Kanyakumari		23	30			
MAHARASHTRA						
Thana		25,26	29,32,33			37
Kolaba			32,33			37
Ratnagiri	22	24	30	28		
Ahmadnagar		24				38
Poona			30,32,33			37,38
Satara		25				37
Kolhapur		25				37
Bhir		25		31		
Osmanabad		25,27		31		
Buldhana			30	28		

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1	2	3	4	5	6	7
MYSORE						
Bangalore		26	33			37,38
Tumkur	22	25,26				
Kolar		25,26,27	33			
Mysore		25,26	29			38
South Kanara	21,22		30			
Coorg	21		30,32		34—5	
Hassan		25			34—5	
Shimoga					34—5	36
Chikmagalur	21			28	34—5	
Belgaum		23,26				
North Kanara			29	28		
Gulbarga		23			34—5	
ORISSA						
Ganjam		24		28		
Dhenkanal				28		36
Keonjhar				28		36,38
Cuttack		24	29,30			
PUNJAB						
Hissar				31		37
Rohtak				31		37,38
Gurgaon			29,32	31		37
Ambala			29,30			37
Simla			30	31		
Kangra		27		31		
Jullundur			30,32			36,37,38
Ludhiana						36,37,38
Ferozepur		24				38
Amritsar		24	30,32			
Gurdaspur		25				36,37
Kapurthala	21	24	32			37
Sangrur				31		36
Patiala				31		36,37,38
Mahendragarh				31	34—5	
RAJASTHAN						
Churu				31		39
Jhunjhunu				31		39
Jaipur			29,30	31		
Sikar				31		39
Jaisalmer		25		31		
Jodhpur			33	31		39
Pali				31	34—5	
Barmer		24,25		31		39
Sirohi				31		39
Udaipur			30	31	34—5	39
Chitorgarh				31		39
Banswara					34—5	36
Jhalawar				31	34—5	

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1	2	3	4	5	6	7
UTTAR PRADESH						
Almora		25				36
Naini Tal	20					37
Bareilly	20					38
Dehra Dun		26	30			37
Muzaffarnagar	20	24,25				
Meerut			30,32			
Mathura			30			39
Agra			30	31	34—5	
Kanpur		24	30,33			36
Allahabad		24	30			
Jalaun			29			39
Kheri	20		33			38
Sitapur	20	27				
Lucknow		27	29			37
Rae Bareli	20					38
Gonda	20					39
Basti	20					39
Deoria	20					39
Jaunpur	20					39
Varanasi		25,26				
Mirzapur		25			34—5	36
WEST BENGAL						
Darjeeling		27				38
Jalpaiguri	20,22		30			38
West Dinajpur	20,22	24				
Malda	22	26				
Murshidabad	22	26				
24-Parganas		24	29,32,33			37
Howrah		24	29,32,33			36,37,38
Hooghly		24	29,32			
Burdwan			32			36,37,38
Birbhum	20,22					39
Purulia	22	26	33			36,39
UNION TERRITORIES						
Delhi			30,32,33			37
Chamba		25		31		
Mandi		25,27		31		
Bilaspur	20	25				
Mahasu	21	25,27		31		
Pondicherry	21	23				
Karaikal	21		33			38

TABLE II.2

Districts classified by States, in which the high proportion of workers (Quartile 4 values) in rural and urban areas is matched by a comparably high proportion of establishments (Quartile 4 values) in at least one major group of I.S.I.C.

State/District	Food, beverages and tobacco 20,21,22	Textile and fibres 23,24,25 26,27	Paper, printing, rubber, petroleum, coal and chemicals and chemical products 29,30,32,33	Wood and leather 28,31	Non-metallic minerals 34—5	Metals machinery and miscellaneous 36,37,38,39
1	2	3	4	5	6	7
ANDHRA PRADESH						
West Godavari	21					
Krishna	21					
Nellore		23				
Cuddapah		23				
Karimnagar		23				
Nalgonda	21					
ASSAM						
Sibsagar						38
Cachar		23				
BIHAR						
Champaran	20					
Monghyr	22					
Saharsa	20					
Hazaribagh					34—5	
GUJARAT						
Jamnagar			33			
Amreli	22					
Kutch			32			
JAMMU AND KASHMIR						
Anantnag		25				
Baramulla		25				
Doda		25				
Udhampur		25				
MADHYA PRADESH						
Morena					34—5	
Bhind					34—5	
Shivpuri				31		
Tikamgarh				28		
Chhatarpur				28		
Panna				28		
Sidhi				31		
Jhabua					34—5	
Indore			30			
Dewas				31		
West Nimar				31		
Raisen	22					
Hoshangabad				28		
Betul						36
Sagar	22					
Damoh	22					
Jabalpur	22					
Balaghat	22					
Bastar	21					
MAHARASHTRA						
Jalgaon		26				
Parbhani				31		
Yeotmal				28		
Nagpur		23				
Bhandara	22					
Chanda			29			

TABLE II.2

Districts classified by States, in which the high proportion of workers (Quartile 4 values) in rural and urban areas is matched by a comparably high proportion of establishments (Quartile 4 values) in at least one major group of I.S.I.C.—contd.

State/District	Food, beverages and tobacco 20,21,22	Textile and fibres 23,24,25 26,27	Paper, printing, rubber, petroleum, coal and chemicals and chemical products 29,30,32,33	Wood and leather 28,31	Non-metallic minerals 34—5	Metals machinery and miscellaneous 36,37,38,39
1	2	3	4	5	6	7
MYSORE						
Chitradurga		25				
Mandya		26				
Bijapur		23				
Dharwar		25				
ORISSA						
Sambalpur	22					
Bolangir		23				
Baudh-Khondmals		23				
Sundargarh						36
Puri						39
PUNJAB						
Karnal				31		
Hoshiarpur			33			
Bhatinda				31		
RAJASTHAN						
Bikaner		25				
Alwar				31		
Bharatpur					34—5	
Tonk				31		
Nagaur				31		
Jalor				31		
Bhilwara				31		
Dungarpur						39
Kota						39
UTTAR PRADESH						
Uttar Kashi		25				
Tehri Garhwal		27				
Bijnor		24				
Moradabad		24				
Budaun		27				
Rampur	20					
Pilibhit	20					
Shahjahanpur	20					
Saharanpur		24				
Aligarh						36
Mainpuri					34—5	
Hamirpur						39
Banda	20					
Hardoi	20					
Unnao						39
Bahraich						39
Bara Banki		23				
Sultanpur	20					
Pratapgarh	20					
Gorakhpur						38
Azamgarh		26				
Ballia	20					
Ghazipur			33			

TABLE II.2

Districts classified by States, in which the high proportion of workers (Quartile 4 values) in rural and urban areas is matched by a comparably high proportion of establishments (Quartile 4 values) in at least one major group of I.S.I.C.—concld.

State/District	Food, beverages and tobacco 20,21,22	Textile and fibres 23,24,25 26,27	Paper, printing, rubber, petroleum, coal and chemicals, and chemical products 29,30,32,33	Wood and leather 28,31	Non-metallic minerals 34—5	Metals machinery and miscellaneous 36,37,38,39
1	2	3	4	5	6	
WEST BENGAL						
Cooch Behar .. .	22					
Nadia		23				
Bankura						36
Midnapore						38
ANDAMAN AND NICOBAR ISLANDS						
Andaman and Nicobar Islands						38
HIMACHAL PRADESH						
Sirmur						36
MANIPUR						
Manipur		23				
TRIPURA						
Tripura			30			
SIKKIM						
Sikkim		27				

CHAPTER III

REGIONAL DIVERSITY AND CONCENTRATION OF INDUSTRIAL ESTABLISHMENTS AND WORKERS IN HOUSEHOLD AND NON-HOUSEHOLD INDUSTRY

A. Method of Ranking

ALL ESTABLISHMENTS concerned with production, servicing and repair of goods were sought to be listed in the houselists in terms of the type of production, servicing or repair each was engaged in. It was thus possible to obtain a fairly complete inventory of establishments engaged in all types of manufacturing, servicing and repairing industry in rural and urban areas.

These establishments were tabulated under the Divisions, major and minor groups of the Indian Standard Industrial Classification. They fall mainly under Divisions 2 and 3 and in the 20 major groups under them. They were classified also under the 162 minor groups falling under these 20 major groups. Those falling under Divisions 0 and 1 have been left out of this account.

Taking the total number of industrial establishments in each district as 1,000, a distribution was worked out separately for rural and urban areas of the proportion contributed by each major group. All districts in India were thereafter arranged in quartiles in respect of the value of the proportion of establishments in each group. Thus, in respect of each of the 20 major groups of the I.S.I.C. each district had one of four quartile positions severally for rural and urban. A position in the quartile of minimum values was given a mark of 1 similarly a position in the quartile of medium values was given a mark of 2, a position in the third quartile a mark of 3, and a position in the quartile of highest values a mark of 4. Thus, in respect of each major industrial group a district had one of four marks (1, 2, 3, 4) in rural and urban areas separately. A mark of 1 for a major group for any district naturally enough signified the lowest concentrations, a mark 4 signified a place in the group of highest concentration, while marks of 2 and 3 signified intermediate positions.

These individual marks for the sum of 19 (major groups 34 and 35 were together considered as one) major groups were in the next place added up for each district separately for rural and urban. Thus the total score for each district afforded a composite qualitative index of (a) diversity and (b) concentration of industrial establishments separately for rural and urban areas. On the one hand the total score gave an account of each district's diversity of industrial establishments in Divisions 2 and 3, leaving out only Division 0 and 1. On the other it brought out the relative concentration in each district of establishments under each major group and in the sum of all major groups.

B. Tests of Ranking

Since the rural and urban areas of a district taken together can alone make a composite picture of its place in the matter of diversity and concentration of industrial establishments, the pooled rural and urban scores of each district were taken as the test for determining its rank among all the districts of India. The following ranking was adopted :

Description	Test of Ranking
I Districts of the greatest diversity and concentration of industrial establishments	Score of Rural and Urban totals of quartile marks in 19 major groups 20-39 : 100 or more Maximum score $19 \times 4 \times 2 = 152$
II Districts of high diversity and concentration of industrial establishments	Score of Rural and Urban totals of quartile marks in 19 major groups 20-39 : 90-99

	Description	Test of Ranking
III	Districts of moderate diversity and concentration of industrial establishments	Score 80-89
IV	Districts of low diversity and concentration of industrial establishments	Score 70-79
V	Districts of the lowest diversity and concentration of industrial establishments	Score Less than 70

In the next place rural and urban quartile scores were similarly worked out for ten selected minor groups of industries enjoying both wide distribution and numerousness of establishments and covering a wide spectrum of exploitation of raw materials. Cotton weaving on handloom has been excluded for two reasons. First, there may have been an under enumeration of handloom establishments in some states and overenumeration in others. Secondly, the distribution of this particular industry is so universal that the quartile values would fall within a narrow range of minima and maxima and the scores might consequently be vitiated. All of the 10 minor groups chosen are concerned with the exploitation of traditional raw material and the workers would be mostly in the household industries sector.

STATEMENT III.1

Ten minor groups of the Indian Standard Industrial Classification which are important from the point of number of establishments (excluding cotton weaving on handloom)

ISIC Minor Group	Description
200	Production of rice, atta, flour etc., by milling, dehusking and processing of crops and food-grains
207	Production of edible fats and oils (other than hydrogenated oil) (oil pressers)
220	Manufacture of bidi
280	Sawing and planing of wood (sawyers)
311	Manufacture of shoes and other leather footwear (cobblers)
350	Manufacture of earthenware and earthen pottery (potters)
365	Manufacture of brass and bell metal products
366	Manufacture of aluminium products
369	Manufacture of sundry hardware such as G. I. pipe, wire net, bolt, screw, bucket, cutlery etc. (blacksmiths)
393	Manufacture of jewellery, silverware and wares using gold and other precious metals (gold and silversmiths)

The total of rural and urban quartile scores for the sum of these ten minor groups has been posted against each district to provide an estimate of the importance enjoyed by these 10 minor groups as a whole in the position a district occupies in the pattern of diversification and concentration of industrial establishments; (i) severally for rural and urban areas and (ii) for the district as a whole.

Finally against each district are given two proportions: (a) the proportion of workers in household industry to 1,000 of all workers and (b) the proportion of workers in non-household industry to 1,000 of all workers. These two figures will serve to bring into sharper focus (a) the relative importance of the traditional sector of handicrafts and household industry, (b) a very rough idea of the size of employment in industrial establishments in the traditional sector of handicrafts and household industry (c) the absolute strength of non-household industrial employment and its relative strength compared to employment in household industry, thus affording an idea of (i) districts whose strength primarily lies in the diversity and concentration of industrial establishments in the traditional sector and employment therein; (ii) districts whose strength lies primarily in the concentration of employment in the non-household industry or modern sector; (iii) districts whose strength in the traditional sector has been reinforced by concentration in the non-household industry or modern sector and (iv) districts which have lagged behind both in the traditional

sector of household industry and in the modern sector of non-household industry. The statistics are presented in Table III.1 at the end of the Chapter.

C. Presentation of Data

When the districts are plotted on a map of India in terms of (1) the greatest diversity and concentration, (2) high diversity and concentration (3) moderate diversity and concentration, (4) low diversity and concentration and (5) the lowest diversity and concentration of industrial establishments several interesting regional patterns emerge. These are delineated below :

STATEMENT III. 2

A. Regions of very high diversity and concentration of industrial establishments (Total score of R+U=90 or more)

(This combines Groups I and II of Table III.1)

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
I GUJARAT-MAHARASHTRA-WEST MYSORE-SOUTH-EAST MADHYA PRADESH		
1 *Gujarat*		
Kutch-Banaskantha-Mehsana-Jamnagar-Rajkot-Junagadh-Amreli-Bhavnagar-Ahmedabad-Kaira-Panchmahals-Baroda-Broach-Surat	1 Rajkot 2 Junagadh 3 Bhavnagar 4 Kaira	1 Jamnagar 2 Ahmedabad 3 Baroda 4 Broach 5 Surat
2 *Maharashtra*		
Thana-Nasik-Jalgaon-Buldhana-Akola-Wardha-Nagpur-Aurangabad-Ahmadnagar-Osmanabad-Poona-Kolaba-Greater Bombay-Satara-Ratnagiri-Kolhapur-Sangli	5 Jalgaon 6 Buldhana 7 Nagpur 8 Kolhapur 9 Ratnagiri 10 Ahmadnagar	6 Thana 7 Greater Bombay 8 Kolaba 9 Poona 10 Nasik 11 Wardha 12 Akola
3 West Mysore		
Belgaum-North Kanara-Shimoga	11 North Kanara	13 Shimoga
4 *South-East Madhya Pradesh*		
Durg-Raipur-Bilaspur		14 Durg
II MYSORE-WEST ANDHRA PRADESH		
1 *Mysore*		
Raichur-Bellary-Chitradurga-Hassan-Mandya-Mysore-Bangalore-Kolar-Tumkur	12 Hassan 13 Mysore	15 Bangalore
2 *West Andhra Pradesh*		
Adilabad-Warangal-Hyderabad-Mahbubnagar-Kurnool-Anantapur		16 Hyderabad
III KERALA-MADRAS		
1 *Kerala*		
Cannanore-Kozhikode-Palghat-Trichur-Ernakulam-Kottayam-Alleppey-Quilon-Trivandrum	14 Palghat 15 Trichur 16 Alleppey 17 Trivandrum	17 Cannanore 18 Kozhikode 19 Ernakulam 20 Kottayam 21 Quilon
2 *Madras*		
Kanyakumari-Madurai-Coimbatore-Tiruchirapalli-Thanjavur-South Arcot-North Arcot-Madras	18 Coimbatore 19 Tiruchirapalli 20 North Arcot	22 Thanjavur 23 Madurai 24 Madras

STATEMENT III. 2

A. Regions of very high diversity and concentration of industrial establishments (Total score of R+U=90 or more)—contd.

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
IV EAST OR COASTAL ANDHRA PRADESH		
Krishna-West Godavari-East Godavari-Visakhapatnam		
V ORISSA		
Balasore-Cuttack-Sambalpur		
VI WEST BENGAL-SOUTH BIHAR		
1 *West Bengal*		
Purulia-Midnapore-Birbhum-Malda-Murshidabad-Burdwan-Hooghly-Howrah Calcutta-24-Parganas	21 Purulia 22 Birbhum	25 Burdwan 26 Hooghly 27 Howrah 28 Calcutta 29 24-Parganas
2 *South Bihar*		
Dhanbad-Singhbhum		30 Dhanbad 31 Singhbhum
VII NORTHERN WEST BENGAL-ASSAM-TRIPURA		
1 *Northern West Bengal*		
Darjeeling-Jalpaiguri-Cooch Behar	23 Cooch Behar	32 Jalpaiguri 33 Darjeeling
2 *Assam*		
Goalpara-Kamrup-Darrang-Nowgong-Lakhimpur-Cachar	24 Darrang	34 Lakhimpur
3 *Tripura*		
VIII BIHAR		
Palamau-Gaya-Shahabad-Monghyr-Saharsa-Purnea Patna-Saran-Champaran--Muzaffarpur	25 Patna	
IX UTTAR PRADESH		
1 *Eastern Uttar Pradesh* Mirzapur-Allahabad-Jaunpur-Faizabad		
2 *Central Uttar Pradesh*		
Kheri-Hardoi-Lucknow-Rae Bareli-Kanpur-Fatehpur Hamirpur-Jhansi		35 Lucknow 36 Kanpur
3 *Western Uttar Pradesh*		
Rampur-Saharanpur-Muzaffarnagar-Meerut	26 Saharanpur	37 Rampur
X RAJASTHAN-MADHYA PRADESH		
1 *West Rajasthan* Bikaner-Jodhpur	27 Jodhpur	
2 *South and Eastern Rajasthan and Madhya Pradesh*		
(*i*) Rajasthan Udaipur-Chitorgarh-Kota		
(*ii*) Madhya Pradesh Mandsaur		
3 *North Eastern Rajasthan*		
Ajmer-Jaipur-Alwar		

STATEMENT III. 2

A. Regions of very high diversity and concentration of industrial establishments (Total score of R+U=90 or more)—concld.

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
XI PUNJAB-JAMMU AND KASHMIR-DELHI		
1 *Punjab*		
Amritsar-Kapurthala-Hoshiarpur-Jullundur-Ludhiana-Ambala-Karnal-Rohtak-Gurgaon	28 Jullundur 29 Gurgaon 30 Ambala	38 Amritsar 39 Kapurthala 40 Ludhiana
2 *Delhi*		41 Delhi
3 *Jammu and Kashmir*		
Jammu	31 Jammu	
XII ISOLATED POCKETS		
Madhya Pradesh		
Sehore		42 Sehore
Indore		43 Indore
Satna		44 Gwalior
Gwalior		

STATEMENT III. 3

B. Regions of moderate diversity and concentration of industrial establishments (Total score of R+U=80-89)

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
I MAHARASHTRA-ANDHRA PRADESH-SOUTH MADHYA PRADESH-ORISSA		
1 *Maharashtra*		
Dhulia-Amravati-Yeotmal-Chanda-Nanded-Bhir-Sholapur	32 Dhulia 33 Amravati 34 Yeotmal 35 Sholapur	
2 *Andhra Pradesh*		
Nizamabad-Karimnagar-Nalgonda-Guntur-Nellore-Srikakulam		
3 *South Madhya Pradesh*		
Bastar		
4 *Orissa*		
Koraput-Ganjam-Puri		
II MYSORE-MADRAS		
1 *Mysore*		
Dharwar-Chikmagalur-Coorg	36 Dharwar 37 Chikmagalur	45 Coorg
2 *Madras*		
Nilgiri-Tirunelveli-Ramanathapuram-Chingleput	38 Ramanathapuram 39 Chingleput	46 Nilgiri

STATEMENT III.3

B. Regions of moderate diversity and concentration of industrial establishments (Total score of R+U=80-89)—concld.

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
III BIHAR		
Darbhanga-Bhagalpur-Santal Parganas-Ranchi		
IV SOUTH AND EAST MADHYA PRADESH		
Jhabua-Dhar-Ratlam-Ujjain-Dewas-West Nimar-East Nimar-Hoshangabad-Betul-Narsimhapur-Seoni- Balaghat-Mandla-Shahdol- Surguja-Raigarh	40 Ratlam 41 East Nimar	47 Ujjain
V UTTAR PRADESH-NORTH MADHYA PRADESH—NORTH EASTERN RAJASTHAN		
1 *Uttar Pradesh*		
Deoria-Azamgarh-Ghazipur-Pratapgarh-Sultanpur-Bara-Banki-Bahraich-Sitapur-Unnao-Moradabad-Farrukhabad-Mainpuri-Etah-Etawah-Jalaun-Banda-Mathura-Agra	42 Moradabad 43 Mainpuri	48 Agra
2 *North Eastern Rajasthan*		
Bharatpur-Sawai Madhopur-Tonk-Bundi-Jhalawar	44 Bharatpur	
3 *North Madhya Pradesh*		
Bhind-Datia-Guna-Chhatarpur-Panna		
VI RAJASTHAN-GUJARAT		
1 *Rajasthan*		
Nagaur-Pali-Bhilwara-Sirohi		
2 *Gujarat*		
Sabarkantha-Surendranagar	45 Surendranagar	
VII JAMMU AND KASHMIR-PUNJAB-NORTH RAJASTHAN		
1 *Jammu and Kashmir*		
Srinagar		49 Srinagar
2 *Punjab*		
Gurdaspur-Patiala-Ferozepur-Sangrur-Hissar-Mahendragarh	46 Gurdaspur 47 Patiala 48 Ferozepur 49 Hissar	
3 *North Rajasthan*		
Ganganagar		50 Ganganagar
VIII WEST BENGAL		
Bankura-Nadia	50 Nadia	
IX ASSAM		
United Khasi and Jaintia Hills-Sibsagar	51 Sibsagar	51 United Khasi and Jaintia Hills
X ORISSA		
Mayurbhanj		

STATEMENT III.4

C. Regions of low diversity and concentration of industrial establishments
(Total score of R+U=70-79)

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
I ISOLATED POCKETS IN MAHARASHTRA-MYSORE-ANDHRA PRADESH-MADRAS		
1 *Maharashtra*		
Parbhani		
2 *Mysore*		
Bidar-Gulbarga-South Kanara		52 South Kanara
3 *Andhra Pradesh*		
Medak-Khammam-Chittoor		
4 *Madras*		
Salem —		
II ORISSA		
Bolangir-Baudh-Khondmals-Dhenkanal-Keonjhar-Sundargarh-Kalahandi		53 Sundargarh
III WEST BENGAL		
West Dinajpur	52 West Dinajpur	
IV ASSAM		
Garo Hills		
V BIHAR		
Hazaribagh	53 Hazaribagh	
VI UTTAR PRADESH- MADHYA PRADESH		
1 *Eastern Uttar Pradesh North Eastern Madhya Pradesh*		
(*i*) Eastern Uttar Pradesh Gonda-Basti-Gorakhpur-Ballia-Varanasi	54 Gorakhpur	
(*ii*) North Eastern Madhya Pradesh Rewa-Sidhi	—	
2 *Central and Western Uttar Pradesh*		
Pilibhit-Garhwal Naini Tal-Shahjahanpur-Bareilly-Budaun-Aligarh-Bulandshahr	55 Pilibhit 56 Aligarh	54 Bareilly
VII MADHYA PRADESH		
1 *North Madhya Pradesh*	—	
Morena-Shivpuri-Tikamgarh		
2 *Central Madhya Pradesh*		
Rajgarh-Shajapur-Vidisha-Jabalpur-Chhindwara	57 Jabalpur	
VIII RAJASTHAN		
1 *South Rajasthan*		
Dungarpur-Banswara	58 Dungarpur	
2 *North Rajasthan*		
Churu-Jhunjhunu-Sikar		
3 *West Rajasthan*		
Jaisalmer-Barmer		

STATEMENT III.4

C. Regions of low diversity and concentration of industrial establishments (Total score of R+U=70-79)—concld.

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
IX PUNJAB-HIMACHAL PRADESH		
1 *Punjab*		
Kangra-Simla-Bhatinda	59 Simla	
2 *Himachal Pradesh*		
Mandi-Mahasu-Sirmur-Bilaspur		
X JAMMU AND KASHMIR		
Baramulla-Poonch-Anantnag-Udhampur-Kathua		
XI PONDICHERRY		
Karaikal		55 Karaikal
Pondicherry		56 Pondicherry

STATEMENT III.5

D. Regions of the lowest diversity and concentration of industrial establishments (Total score of R+U=less than 70)

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
I PENINSULA		
1 *Gujarat*		
Dangs		
2 *Maharashtra*		
Bhandara		
3 *Mysore*		
Bijapur		
4 *Andhra Pradesh*		
Cuddapah		
II EASTERN INDIA		
1 *Assam*		
United Mikir and North Cachar Hills-Mizo Hills		
2 *Manipur*		
3 *Nagaland*		
Kohima-Mokokchung-Tuensang		57 Kohima 58 Mokokchung 59 Tuensang
III MADHYA PRADESH		
Raisen-Sagar-Damoh		
IV RAJASTHAN		
Jalor		

STATEMENT III.5

D. Regions of the lowest diversity and concentration of industrial establishments (Total score of R+U=less than 70)—concld.

Region	Districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3
V UTTAR PRADESH-PUNJAB-HIMACHAL PRADESH-JAMMU AND KASHMIR		
1 *Uttar Pradesh*		
Bijnor-Dehra Dun-Tehri Garhwal-Uttar Kashi-Chamoli-Almora-Pithoragarh	60 Dehra Dun	
2 *Himachal Pradesh*		
Chamba-Kinnaur		
3 *Punjab*		
Lahaul and Spiti		
4 *Jammu and Kashmir*		
Ladakh-Doda		
VI PONDICHERRY		
Mahe-Yanam		60 Mahe

D. Concluding Remarks

It will thus be seen that districts whose industrial strength primarily lies in the diversity and concentration of industrial establishments in the traditional sector and employment therein are those that fall in groups A and B and whose names are not repeated in columns 2 and 3. Wherever certain districts are mentioned in columns 2 and 3 of groups A and B they represent districts whose strength in the traditional sector has been reinforced by concentration in the non-household industry or modern sector. Districts which find mention in columns 2 and 3, particularly 3, of groups C and D are those whose strength lies primarily in the concentration of employment in the non-household industry or modern sector. The number of such districts is unfortunately very small. Finally, districts in groups C and D which are not mentioned in columns 2 and 3 are those which have lagged behind both in the traditional sector of household industry and in the modern sector of non-household industry. The following abstract will sharpen the implications of the above observation.

STATEMENT III.6

Abstract statement of degrees of diversity and concentration of industrial establishments

Description	Total	Number of districts where the proportion of employment in non-household industry is more than half but less than or equal to that in household industry	Number of districts where the proportion of employment in non-household industry is more than that in household industry
1	2	3	4
1 Districts of the greatest diversity and concentration of industrial establishments ..	51	6	22
2 Districts of high diversity and concentration of industrial establishments	97	25	22
3 Districts of moderate diversity	91	20	7
4 Districts of low diversity ..	61	8	5
5 Districts of the lowest diversity	28	1	4
Total	328	60	60

TABLE III.1

I Districts of the greatest diversity and concentration of industrial establishments (total of score T_1=100 or more)

II Districts of high diversity and concentration of industrial establishments (total of score T_1=90—99)

III Districts of moderate diversity and concentration of industrial establishments (total of score T_1=80—89)

IV Districts of low diversity and concentration of industrial establishments (total of score T_1=70—79)

V Districts of the lowest diversity and concentration of industrial establishments (total of score T_1=less than 70)

Cols. R_1 U_1 T_1 = sum of score of quartile values of the district in major groups 20—39 of I.S.I.C. in rural, urban and total respectively

Cols. R_2 U_2 T_2 = sum of score of quartile values of the district in minor groups (200, 207, 220, 280, 311, 350, 365, 366, 369 and 393) of I.S.I.C. in rural, urban and total respectively

Col. H H W = proportion of workers in household industry to 1,000 of all workers

Col. N H H W = proportion of workers in non-household industry to 1,000 of all workers

State	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
I. Districts of the greatest diversity and concentration of industrial establishments (total of score T_1=100 or more)									
Andhra Pradesh	Visakhapatnam	51	26	52	30	103	56	65	25
	Krishna	51	24	53	31	104	55	82	32
	Kurnool	52	27	50	27	102	54	88	20
	East Godavari	56	28	58	32	114	60	111	31
Assam	Goalpara	52	29	50	31	102	60	61	20
	Kamrup	58	27	52	21	110	48	144	18
	Darrang	51	24	49	24	100	48	24	17
Bihar	Saran	49	25	57	30	106	55	70	12
	Patna	50	29	50	29	100	58	55	37
	Shahabad	50	29	52	27	102	56	59	25
	Monghyr	51	25	49	26	100	51	72	26
	Muzaffarpur	52	27	52	26	104	53	71	9
	Purnea	52	23	50	26	102	49	48	17
	Singhbhum	53	26	53	21	106	47	39	83
Gujarat	Kutch	48	27	54	27	102	54	119	29
	Mehsana	48	28	54	34	102	62	131	32
	Baroda	50	31	53	28	103	59	27	70
	Ahmedabad	52	32	50	22	102	54	67	273
	Bhavnagar	47	28	55	30	102	58	88	59
	Jamnagar	47	23	57	32	104	55	75	76
	Surat	55	27	45	20	100	47	45	69
Kerala	Kozhikode	48	25	53	23	101	48	65	84
	Trichur	48	27	53	26	101	53	97	93
	Kottayam	49	30	53	28	102	58	46	60
Madhya Pradesh	Indore	44	22	56	22	100	44	48	158
Madras	Madras	..	..	53	20	53	20	25	245
Maharashtra	Kolaba	53	28	48	26	101	54	22	23
	Thana	60	26	49	20	109	46	22	104
	Kolhapur	51	24	51	22	102	46	53	48
	Poona	53	23	58	21	111	44	39	79
	Greater Bombay	..	..	60	21	60	21	14	395
	Satara	49	25	57	26	106	51	53	24
Mysore	Bangalore	48	21	56	17	104	38	57	133
	Tumkur	50	26	50	20	100	46	68	14
	Kolar	51	24	52	20	103	44	49	16
	Belgaum	55	23	47	21	102	44	70	31

TABLE III: 1

State	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
I Districts of the greatest diversity and concentration of industrial establishments (total of score T_1=100 or more)—concld.									
Punjab	Jullundur	49	22	55	22	104	44	116	99
	Amritsar	56	20	47	19	103	39	64	122
	Rohtak	53	30	49	27	102	57	79	34
	Ludhiana	52	22	49	15	101	37	99	134
Rajasthan	Jaipur	43	21	57	28	100	49	95	30
Uttar Pradesh	Jhansi	48	26	52	26	100	52	71	23
	Meerut	51	23	51	23	102	46	155	71
	Kanpur	44	24	60	26	104	50	47	140
	Fatehpur	57	25	47	28	104	53	62	5
West Bengal	24-Parganas	49	23	57	25	106	48	27	211
	Hooghly	50	26	50	25	100	51	42	194
	Midnapore	52	26	52	27	104	53	54	26
	Howrah	60	31	46	25	106	56	32	361
	Burdwan	53	29	53	25	106	54	30	111
	Calcutta	..	..	58	24	58	24	8	252
II Districts of high diversity and concentration of industrial establishments (total of score T_1=90—99)									
Andhra Pradesh	Anantapur	49	21	48	28	97	49	83	10
	West Godavari	47	27	50	30	97	57	81	27
	Mahbubnagar	44	27	47	29	91	56	132	6
	Warangal	41	26	52	30	93	56	103	33
	Hyderabad	46	27	53	23	99	50	70	80
	Adilabad	45	33	53	31	98	64	76	33
Assam	Lakhimpur	46	21	47	18	93	39	15	33
	Nowgong	50	22	43	20	93	42	53	20
	Cachar	49	25	43	25	92	50	64	17
Bihar	Saharsa	46	25	52	26	98	51	39	8
	Champaran	53	28	46	29	99	57	41	13
	Palamau	46	27	53	30	99	57	32	9
	Dhanbad	49	27	49	22	98	49	25	60
	Gaya	50	26	49	26	99	52	48	15
Gujarat	Rajkot	43	26	51	27	94	53	82	62
	Broach	40	26	52	25	92	51	24	31
	Amreli	47	26	47	30	94	56	77	24
	Junagadh	43	26	48	28	91	54	67	38
	Kaira	47	27	48	29	95	56	61	48
	Panchmahals	44	30	49	27	93	57	30	7
	Banaskantha	48	31	42	29	90	60	74	8
Jammu and Kashmir	Jammu	43	24	53	26	96	50	30	30
Kerala	Ernakulam	44	26	53	24	97	50	78	112
	Trivandrum	45	20	51	20	96	40	113	77
	Quilon	47	23	50	23	97	46	88	170
	Cannanore	45	25	45	20	90	45	65	104
	Palghat	50	25	48	23	98	48	69	56
	Alleppey	41	21	49	24	90	45	171	92
Madhya Pradesh	Sehore	41	25	53	24	94	49	46	65
	Gwalior	41	22	54	23	95	45	41	117
	Raipur	45	28	51	28	96	56	38	17
	Durg	46	29	50	23	96	52	31	37
	Mandsaur	42	25	49	24	91	49	54	18
	Bilaspur	47	27	45	25	92	52	37	9
	Satna	45	31	46	29	91	60	72	21
Madras	Coimbatore	43	16	51	19	94	35	110	85
	Thanjavur	52	22	46	22	98	44	38	39
	South Arcot	50	21	46	25	96	46	40	16
	North Arcot	45	18	49	22	94	40	70	44
	Tiruchirapalli	50	23	48	26	98	49	49	47
	Kanyakumari	51	21	42	22	93	43	219	51
	Madurai	48	23	45	21	93	44	48	58

TABLE III.1

State	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
II Districts of high diversity and concentration of industrial establishments (total of score T_1=90—99)—concld.									
Maharashtra	Akola	44	21	50	22	94	43	23	26
	Nasik	54	22	42	14	96	36	40	68
	Ahmadnagar	50	22	45	18	95	40	42	40
	Wardha	45	19	45	26	90	45	36	39
	Aurangabad	48	23	48	24	96	47	39	15
	Sangli	49	24	49	24	98	48	60	28
	Ratnagiri	49	29	47	23	96	52	28	16
	Osmanabad	43	24	47	28	90	52	37	8
	Jalgaon	44	26	48	26	92	52	42	25
	Buldhana	45	22	52	22	97	44	28	18
	Nagpur	50	22	42	15	92	37	106	87
Mysore	Mandya	48	21	42	20	90	41	45	22
	North Kanara	45	27	53	24	98	51	67	43
	Hassan	46	23	51	26	97	49	32	18
	Bellary	43	23	47	26	90	49	55	25
	Chitradurga	41	24	50	20	91	44	69	29
	Shimoga	41	25	51	24	92	49	34	54
	Raichur	41	22	51	29	92	51	65	10
	Mysore	41	19	53	20	94	39	79	40
Orissa	Balasore	45	23	47	28	92	51	42	11
	Cuttack	46	21	48	25	94	46	88	24
	Sambalpur	41	25	49	29	90	54	94	11
Punjab	Kapurthala	43	23	50	27	93	50	70	108
	Ambala	46	25	52	24	98	49	82	80
	Gurgaon	49	25	50	27	99	52	68	41
	Hoshiarpur	49	24	48	28	97	52	124	38
	Karnal	48	27	43	21	91	48	83	38
Rajasthan	Udaipur	43	26	52	28	95	54	54	13
	Ajmer	45	23	54	33	99	56	89	42
	Chitorgarh	48	30	46	29	94	59	50	11
	Alwar	41	24	49	22	90	46	50	12
	Bikaner	40	23	51	30	91	53	137	32
	Kota	40	28	52	27	92	55	62	24
	Jodhpur	42	21	54	29	96	50	37	24
Uttar Pradesh	Lucknow	42	21	50	24	92	45	39	95
	Saharanpur	44	21	47	22	91	43	86	61
	Muzaffarnagar	47	22	47	27	94	49	117	42
	Mirzapur	47	23	47	25	94	48	60	26
	Allahabad	51	28	48	25	99	53	59	28
	Rampur	42	22	49	25	91	47	34	54
	Kheri	52	26	39	26	91	52	34	13
	Rae Bareli	48	26	45	22	93	48	45	7
	Hamirpur	50	29	41	23	91	52	75	6
	Faizabad	50	25	41	22	91	47	69	13
	Hardoi	48	24	43	23	91	47	45	10
	Jaunpur	47	25	44	24	91	49	60	13
West Bengal	Malda	43	24	54	29	97	53	128	20
	Jalpaiguri	47	22	50	23	97	45	11	15
	Birbhum	48	24	44	29	92	53	47	29
	Murshidabad	43	24	49	27	92	51	110	31
	Purulia	47	27	48	24	95	51	31	19
	Cooch Behar	40	26	51	21	91	47	24	16
	Darjeeling	41	25	53	25	94	50	17	18
Delhi	Delhi	40	21	53	22	93	43	20	199
Tripura	Tripura	53	28	46	19	99	47	58	25
III Districts of moderate diversity and concentration of industrial establishments (total of score T_1=80—89)									
Andhra Pradesh	Karimnagar	42	28	40	25	82	53	160	30
	Nellore	38	18	42	22	80	40	119	14
	Srikakulam	44	24	43	29	87	53	72	10
	Nalgonda	39	24	44	27	83	51	95	21
	Guntur	37	16	46	24	83	40	98	39
	Nizamabad	47	28	39	21	86	49	109	50

TABLE III.1

State	Disfrict	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
III Districts of moderate diversity and concentration of industrial establishments (total of score T_I=80—89)—contd.									
Assam	United Khasi and Jaintia Hills	42	15	44	16	86	31	14	16
	Sibsagar	48	23	39	19	87	42	30	26
Bihar	Darbhanga	37	16	43	22	80	38	96	12
	Santal Parganas.	42	24	45	22	87	46	49	8
	Ranchi	41	25	47	28	88	53	40	15
	Bhagalpur	46	23	37	21	83	44	69	27
Gujarat	Surendránagar	46	28	43	26	89	54	102	67
	Sabarkantha	38	28	42	27	80	55	49	12
Jammu and Kashmir	Srinagar	37	26	49	25	86	51	64	83
Madhya Pradesh	Panna	41	28	39	25	80	53	49	3
	Narsimhapur	42	26	39	27	81	53	69	12
	Guna	42	23	41	26	83	49	56	12
	Chhatarpur	44	27	41	28	85	55	76	5
	Jhabua	42	24	41	25	83	49	18	3
	Balāghat	43	28	41	22	84	50	67	5
	Raigarh	43	27	41	23	84	50	51	8
	East Nimar	38	22	42	20	80	42	49	34
	Mandla	42	23	42	27	84	50	27	3
	Seoni	44	25	42	24	86	49	30	5
	Bhind	40	26	43	27	83	53	30	7
	Shahdol	40	26	43	27	83	53	34	5
	Betul	40	29	43	29	83	58	45	3
	West Nimar	37	26	44	29	81	55	39	11
	Dewas	35	22	45	26	80	48	53	15
	Surguja	41	25	45	25	86	50	29	4
	Dhar	38	23	46	26	84	49	37	8
	Hoshangabad	38	22	46	27	84	49	52	15
	Ratlam	35	19	48	28	83	47	48	40
	Ujjain	39	20	50	26	89	46	49	63
	Bastar	41	25	46	22	87	47	29	5
	Datia	36	22	48	26	84	48	64	9
Madras	Nilgiri	41	12	43	13	84	25	7	47
	Tirunelveli	51	23	36	17	87	40	155	61
	Chingleput	41	20	39	18	80	38	86	61
	Ramanathapuram	43	19	39	19	82	38	79	44
Maharashtra	Amravati	40	20	46	25	86	45	30	30
	Yeotmal	41	19	46	26	87	45	25	16
	Sholapur	45	20	44	18	89	38	81	76
	Bhir	43	25	44	28	87	53	40	9
	Nanded	42	27	45	27	87	54	39	18
	Chanda	51	21	38	18	89	39	44	12
	Dhulia	46	21	41	20	87	41	35	24
Mysore	Dharwar	42	24	42	22	84	46	71	36
	Coorg	43	25	43	27	86	52	19	32
	Chikmagalur	42	25	45	24	87	49	32	25
Orissa	Koraput	39	20	41	26	80	46	36	5
	Puri	40	23	41	22	81	45	80	13
	Ganjam	42	20	42	22	84	42	75	10
	Mayurbhanj	41	19	44	23	85	42	62	2
Punjab	Sangrur	40	25	40	27	80	52	86	25
	Gurdaspur	42	23	45	27	87	50	84	70
	Patiala	42	20	45	22	87	42	94	48
	Mahendragarh	37	22	45	23	82	45	61	14
	Hissar	36	20	49	27	85	47	39	28
	Ferozepur	40	23	47	22	87	45	64	33
Rajasthan	Ganganagar	37	19	46	24	83	43	24	31
	Sirohi	40	26	40	20	80	46	137	13
	Bhilwara	45	27	40	33	85	60	61	12
	Bharatpur	39	19	41	28	80	47	27	15

TABLE III. 1

State	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
III Districts of moderate diversity and concentration of industrial establishments (total of score T_1=80—89)—concld.									
Rajasthan—*concld.*	Pali	38	24	42	31	80	55	129	24
	Sawai Madhopur	42	30	47	27	89	57	54	19
	Tonk	42	24	47	30	89	54	79	14
	Jhalawar	40	29	42	26	82	55	52	10
	Nagaur	40	23	43	27	83	50	42	12
	Bundi	41	25	45	26	86	51	78	29
Uttar Pradesh	Azamgarh	48	25	35	25	83	50	103	8
	Bara Banki	43	22	37	13	80	35	67	8
	Sitapur	47	20	38	17	85	37	43	13
	Sultanpur	44	25	38	19	82	44	59	7
	Etawah	47	23	39	21	86	44	47	17
	Pratapgarh	41	21	39	22	80	43	54	5
	Deoria	42	27	39	27	81	54	28	14
	Mathura	43	23	46	22	89	45	68	24
	Etah	42	22	40	20	82	42	60	15
	Mainpuri	47	24	40	17	87	41	53	29
	Unnao	41	26	40	23	81	49	47	6
	Banda	45	25	40	23	85	48	56	3
	Agra	48	24	41	24	89	48	61	128
	Farrukhabad	44	25	41	24	85	49	58	21
	Moradabad	38	21	44	29	82	50	67	51
	Jalaun	44	22	44	25	88	47	51	9
	Bahraich	42	24	45	27	87	51	30	9
	Ghazipur	47	22	40	23	87	45	77	9
West Bengal	Nadia	45	26	40	19	85	45	90	54
	Bankura	45	27	39	20	84	47	58	28
IV Districts of low diversity and concentration of industrial establishments (total of score T_1=70—79)									
Andhra Pradesh	Medak	44	23	33	23	77	46	100	10
	Khammam	40	23	38	24	78	47	61	20
	Chittoor	35	23	43	22	78	45	101	12
Assam	Garo Hills	41	26	35	13	76	39	9	3
Bihar	Hazaribagh	42	24	37	20	79	44	39	26
Jammu and Kashmir	Baramulla	34	25	40	27	74	52	38	10
	Udhampur	31	23	41	27	72	50	106	3
	Anantnag	35	22	42	29	77	51	68	12
	Kathua	33	22	42	25	75	47	71	7
	Poonch	33	21	46	29	79	50	63	4
Madhya Pradesh	Sidhi	41	26	32	20	73	46	44	1
	Rewa	41	30	36	23	77	53	51	4
	Chhindwara	43	27	36	22	79	49	40	7
	Shajapur	37	21	38	27	75	48	57	8
	Rajgarh	36	22	38	27	74	49	54	6
	Morena	40	24	39	26	79	50	28	11
	Shivpuri	39	24	39	27	78	51	46	4
	Tikamgarh	39	24	40	27	79	51	59	3
	Vidisha	36	22	41	27	77	49	49	13
	Jabalpur	34	20	43	24	77	44	91	72
Madras	Salem	41	15	33	14	74	29	105	32
Maharashtra	Parbhani	40	25	37	19	77	44	35	11
Mysore	Bidar	39	23	35	15	74	38	92	4
	South Kanara	39	19	38	16	77	35	67	76
	Gulbarga	35	23	41	23	76	46	92	21
Orissa	Baudh-Khondmals	40	21	33	19	73	40	57	1
	Keonjhar	39	21	36	27	75	48	47	4
	Dhenkanal	42	20	37	20	79	40	101	3
	Bolangir	36	23	38	24	74	47	81	2
	Sundargarh	37	23	42	25	79	48	42	56
	Kalahandi	39	22	40	24	79	46	58	2

TABLE III.1

State	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
IV Districts of low diversity and concentration of industrial establishments (total of score T_1=70—79)—concld.									
Punjab	Simla	33	18	40	16	73	34	53	32
	Kangra	37	21	41	22	78	43	52	7
	Bhatinda	35	24	43	23	78	47	71	27
Rajasthan	Jaisalmer	36	18	34	19	70	37	267	5
	Barmer	36	20	36	24	72	44	40	4
	Banswara	38	24	40	27	78	51	25	4
	Dungarpur	31	24	43	24	74	48	13	7
	Churu	25	16	45	29	70	45	48	14
	Jhunjhunu	32	23	45	26	77	49	47	16
	Sikar	38	21	40	26	78	47	76	18
Uttar Pradesh	Aligarh	39	22	39	20	78	42	86	51
	Varanasi	44	17	30	14	74	31	134	46
	Ballia	44	24	35	24	79	48	105	9
	Bareilly	41	26	37	25	78	51	45	52
	Shahjahanpur	40	24	38	25	78	49	50	18
	Gonda	41	23	38	27	79	50	32	8
	Gorakhpur	40	21	38	15	78	36	40	21
	Pilibhit	42	25	31	18	73	43	42	37
	Naini Tal	38	17	34	25	72	42	58	28
	Budaun	37	21	35	25	72	46	40	9
	Bulandshahr	37	22	40	26	77	48	94	28
	Basti	35	22	40	19	75	41	38	4
	Garhwal	28	19	43	24	71	43	19	8
West Bengal	West Dinajpur	34	19	45	29	79	48	23	16
Himachal Pradesh	Bilaspur	37	22	40	25	77	47	77	7
	Sirmur	37	21	39	24	76	45	73	12
	Mahasu	36	18	40	18	76	36	43	10
	Mandi	32	21	43	24	75	45	42	5
Pondicherry	Karaikal	36	21	36	24	72	45	30	65
	Pondicherry	37	13	39	21	76	34	59	146
V Districts of the lowest diversity and concentration of industrial establishments (total of score T_1=less than 70)									
Andhra Pradesh	Cuddapah	32	18	33	15	65	33	142	12
Assam	Mizo Hills	27	13	30	13	57	26	45	8
	United Mikir and North Cachar Hills	36	21	32	13	68	34	64	2
Gujarat	Dangs	33	19	..	..	33	19	11	1
Jammu and Kashmir	Ladakh	22	13	22	14	44	27	76	3
	Doda	27	19	36	23	63	42	88	3
Madhya Pradesh	Raisen	39	25	26	16	65	41	63	4
	Sagar	28	15	27	17	55	32	205	18
	Damoh	32	24	34	27	66	51	137	9
Maharashtra	Bhandara	32	17	31	17	63	34	147	19
Mysore	Bijapur	37	18	28	15	65	33	108	20
Punjab	Lahaul and Spiti	25	13	..	..	25	13	15	2
Rajasthan	Jalor	39	24	27	22	66	46	59	6
Uttar Pradesh	Chamoli	24	14	..	..	24	14	46	1
	Pithoragarh	32	17	..	..	32	17	35	2
	Uttar Kashi	26	16	25	13	51	29	33	2
	Tehri Garhwal	28	14	28	17	56	31	24	2
	Almora	29	20	33	25	62	45	18	3
	Bijnor	29	17	37	19	66	36	137	40
	Dehra Dun	28	13	39	22	67	35	68	60
Andaman and Nicobar Islands	Andaman and Nicobar Islands	36	18	28	14	64	32	149	39

TABLE III.1

State/Union Territory	District	R_1	R_2	U_1	U_2	T_1	T_2	HHW	NHHW
V Districts of the lowest diversity and concentration of industrial establishments (total of score T_1=less than 70)—concld.									
Himachal Pradesh	Chamba	30	21	38	24	68	45	53	9
	Kinnaur	29	19	..	..	29	19	151	13
Manipur	Manipur	25	12	25	12	50	24	221	3
Nagaland	Mokokchung	22	10	19	10	41	20	1	4
	Kohima	22	13	26	15	48	28	N	5
	Tuensang	22	16	..	..	22	16	N	1
Pondicherry	Mahe	27	11	23	12	50	23	76	133
	Yanam	..	..	25	13	25	13	125	31
Dadra and Nagar Haveli	Dadra and Nagar Haveli	25	13	..	..	25	13	17	2
Laccadive, Minicoy and Amindivi Islands	Laccadive, Minicoy and Amindivi Islands	22	13	..	..	22	13	828	30
North-East Frontier Agency	North-East Frontier Agency	30	16	..	..	30	16	18	1
SIKKIM	SIKKIM	30	18	37	16	67	34	4	1

CHAPTER IV

DISTRIBUTION OF WORKSHOPS AND FACTORIES BY SIZE OF EMPLOYMENT, RURAL AND URBAN AND BY TYPE OF POWER USED

A. All India

DESPITE THE LIMITATIONS of the data and incompleteness of coverage in parts of the country, the inertia of large numbers together with the device of ratios helps to bring out plausible patterns for the whole of India and equally plausible and distinctive regional and State variations.

The allocation of the 'Not-stated' residue in Assam, Madras, West Bengal and Pondicherry and consequently in India is a simple proposition. It is quite obvious that this residue belongs almost entirely to the 1-person establishment, because as soon as the 'Not-stated' ratio is added to the 1-person ratio, the latter fits in well with the pattern exhibited by each of the other States, calling for no other lateral adjustment. That this 'Not-stated' residue may be added wholly to the 1-person establishment without detriment to the values of other cells will be quite clear even on an examination of the adjusted crude figures. The 'Not-stated' ratios have therefore been added on to those of the single person establishments. [Tables IV.1 to IV.8].

Table IV.I will show that the single person establishment accounts for more than 50 per cent of all units in all States except Gujarat, Kerala, Madras, Mysore, Orissa, West Bengal, Nagaland, Delhi and Tripura. The ratio is as high as 89 per cent in Himachal Pradesh, about 77 in Jammu and Kashmir, 76 in Manipur, about 64 in Andhra Pradesh, and 62 in Madhya Pradesh. The State with the lowest single person ratio is Delhi (10 per cent). Madras (45), Tripura (45), Gujarat (42), Mysore (41), Nagaland (41), Orissa (38), and Kerala (36) too, are on the low side, with West Bengal (49), Assam (55), Bihar (55), Maharashtra (56), Punjab (52), Rajasthan (52), Uttar Pradesh (53) clustered around 50 per cent. An even more significant ratio is the combined value of proportions of single person and 2-5 person units. This combined value accounts for more than 90 per cent of all establishments in all States except Assam (83), Gujarat (90), Kerala (85), West Bengal (87), Delhi (58) and Tripura (89). Complementarily, therefore, to the single person ratio, the 2-5 person establishment ratio is lowest in Himachal Pradesh (10·5), and as low as 20 in Jammu and Kashmir, 22 in Manipur, 28 in Assam, 31 in Andhra Pradesh and 36 in Madhya Pradesh. This proportion is more than 50 per cent in Mysore (51), Orissa (59) and Nagaland (51).

The very important role that units employing an upper limit of 5 persons play in the industrial life of the country thus stares one in the face. It brings out by implication the far-too-dominant role still played by household industry in the production, servicing and repair of goods and invites one to speculations about the investment, production and market set up of this very populous, technologically and financially deficient and organisationally inefficient sector.

Establishments employing 6-9 persons have an uneven distribution from State to State, apart from the fact that the proportions in this cell show a very steep fall from the 2-5 person values. This cell more or less differentiates the various levels of industrial organisation into which Indian States may be classified, providing as it does a kind of break-off point from the purely household or small scale venture (1-5 persons) to employment and investment on a committed scale. In this particular group, the States of Andhra Pradesh (2·5), Bihar

(2), Jammu and Kashmir (2), Madhya Pradesh (0·9), Orissa (2·4), Nagaland (2), Himachal Pradesh (0·3) and Manipur (1·5) fall much below the all-India average of 3·4, while the States that are much above the latter are Delhi (18·5), Kerala (7), West Bengal (6·4), Gujarat (5·38), Assam (5·28), Uttar Pradesh (4·97), Tripura (4·96), Madras (4·95), Mysore (4·38) and Punjab (4·36). States that are close to the all-India average are Maharashtra (3·47) and Rajasthan (3·13).

That the 6-9 persons establishment marks the watershed between States which may be said to be still on the side of traditional household industry despite many new industries established in them, and those which may be said to be on the way to modern small scale industry leading on to large ones, is demonstrated by the two patterns of ratios in higher employment groups which progressively diverge from this point. Thus with the exception of Uttar Pradesh the values for 10-19, 20-49, 50-99 and 100+ are consistently higher for the States of Delhi, Kerala, West Bengal, Assam, Tripura, Punjab, Gujarat and Madras than in the remaining States. Uttar Pradesh's ratios show that the State can claim but a modest share in the higher employment groups compared to that in the lower ones, while Maharashtra shows the relative concentration of large workshops and factories. The most promising distribution is offered in order of values for the higher employment groups in Delhi, Assam, Kerala, West Bengal, Gujarat and Punjab.

This overall picture is sharpened in outline by the rural distribution (Table IV.2) which demonstrate the substantial presence of the upper employment brackets of even the rural areas of Delhi, Assam, Gujarat, Kerala, Madras, West Bengal and Tripura. Table IV.2 also underlines the heightened preponderance of single person and 2-5 person units in rural areas and further shows the place the bigger units are carving for themselves in States like Maharashtra, Mysore, Punjab and Uttar Pradesh. The urban areas (Table IV.3) present a much more promising picture of units employing more than 6 persons. Here again the pre-eminence of Delhi, West Bengal, Kerala, Assam and Gujarat is confirmed but Maharashtra, Punjab, Uttar Pradesh, Madras, Mysore, Andhra Pradesh and Rajasthan are also in positions of considerable strength, not merely in terms of ratios, but more particularly from the point of absolute numbers of upper employment bracket establishments and the strength of workers engaged in them. Particularly heartening is the emergence of Andhra Pradesh, Maharashtra, Mysore, Punjab, Rajasthan and Jammu and Kashmir where (except in certain parts of Maharashtra notably the coastal districts) progress has been recent compared to the established record of some others. The States that still lag behind in adequacy of large units in urban areas are Bihar, Madhya Pradesh and Orissa. It should be noted that mines have been excluded from the list of industrial establishments in the current discussion.

The Rural and Urban components of Table IV.9 are complementary, the values of both for any particular cell adding up to 100. They are of great interest as reflecting the location not only of the smaller employment units but of the medium and large factories. One readily finds that the scales are heavily weighted in favour of rural areas by the preponderance of units employing to a limit of 5 persons in all States. But even in the overall picture it will be seen that the rural areas claim less than half of all establishments in Gujarat (43 per cent), Madras (45 per cent) and Delhi (3 per cent). Mysore, Punjab, Rajasthan, West Bengal, Nagaland and Tripura claim between 50 and 60 per cent of all establishments in their rural areas, while Assam, Kerala, Maharashtra and Uttar Pradesh claim between 60 and 70 per cent. The States with the highest concentration of units in rural areas are Himachal Pradesh (95) and Orissa (95), followed by Bihar (83), Jammu and Kashmir (83), Madhya Pradesh (83) and Manipur (80).

What is of greater interest, however, in Table IV.9 is the relatively high ratio in rural areas of certain States of units employing more than 5 persons. Thus in Assam, Bihar, Kerala, Orissa, and Tripura each of the size classes 6-9, 10-19, 20-49, 50-99 and 100+ claims much more than 50 per cent of units in rural areas except for the 100+ cell in Bihar (49) and Orissa (30). The consistently high ratios of Uttar Pradesh and Jammu and Kashmir deserve notice. By contrast, the extraordinarily low ratios of Orissa in 1, 2-5, 6-9 and 10-19 groups is indeed an uncommon phenomenon. The States which follow a slightly different pattern of comparatively low ratios in the upper employment brackets in rural areas are Gujarat, Madras, Maharashtra, Mysore, Punjab and West Bengal. This is a group which put its foot out for the larger factories comparatively earlier than the others. The fact that there is a tendency to locate larger factories in the rural areas of certain States speaks not only for the rapid extension of electricity and dispersal of industrial locations in them, together with improvement of communication and transport, a greater regard for economies and an extension of the recruitment area of labour into the rural areas, but also of the congestion in urban sites and other high social and economic costs involved. This dispersal into rural areas is quite prominent in Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Uttar Pradesh, Himachal Pradesh, Tripura and Manipur. But this comment should in no way be permitted to minimise the fact of remarkable concentration of medium and large units in the urban areas of all States except Assam (quite understandably on account of the tea gardens, railway establishments and oil installations), Kerala, Tripura and Manipur, and chief of all Orissa. Even in Orissa the really large units of 100+ are rapidly forming in and around towns, old or new. But the Kerala urban ratios which are all below 50 per cent for urban areas in any employment group speak much for the striking dispersal of industries that has taken place all over that state.

There will be occasion later on in this review to comment on the pattern of employment of power in industry in each district. The present discussion will be confined to the level of each state. Tables IV.4-8 show the distribution of all industrial units by the type of power used. Table IV.9 gives the rural and urban distributions.

What strikes the eye first and foremost is the low proportion of units running on electricity (5·03 per cent) and the still lower proportion running on liquid fuel like diesel, kerosene etc. The second most outstanding feature is the very high proportion of units using no power at all (79 per cent), the fair proportion of units using solid fuel like coal, wood, bagasse, saw dust etc., and the not inconsiderable proportion using all other types of power like wind or water mills or draught animals. The States claiming the least proportions of units using electricity are Himachal Pradesh (0·28), Manipur (0·29), Orissa (0·29) Sikkim (0·82), Madhya Pradesh (1·51), Jammu and Kashmir (2·43), Bihar (2·62), Tripura (2·94), Andhra Pradesh (3·42), Assam (4·30), Uttar Pradesh (4·38), all below the all India average of 5·03 per cent. The States with the highest ratios in electricity are Delhi (52·21), Gujarat (16·92), Andaman and Nicobar Islands (16·67), Punjab (14·94), West Bengal (10·05), Pondicherry (8·69), Mysore (8·05), Kerala (7·76), Madras (6·66) Maharashtra (5·79), and Rajasthan (6·06). Of these Delhi alone is anywhere near the extent of electricity used in big and small units in the advanced countries.

The statement shown on next page compares (1) the number of workshops and factories employing a limit of 9 persons (2) and the number of those employing more than 9 with (3) the amount of industrial power sold at low and medium voltage and (4) industrial power sold at high voltage in 1959-60.

STATEMENT IV.1

Number of units of various employment denominations related to use of industrial power of different voltages

Source:—Public Electricity Supply All India Statistics, 1959-60 General Review by C.W.P.C. (Source TABLE XLI)

State/Union Territory 1	Number of units in 1960 employing 9 persons or less 2	Industrial power at low and medium voltage (million kWh) 3	Number of units in 1960 employing more than 9 persons 4	Industrial power at high voltage (million kWh) 5
Andhra Pradesh	146,878	68.227	3,718	239.742
Assam*	5,368	3.617	1,327	2.941
Bihar	236,676	61.563	4,092	590.233
Bombay (Gujarat and Maharashtra)	385,934	416.953	14,659	1,973.019
Jammu and Kashmir	41,312	14.500	577	7.000
Kerala	53,921	47.529	4,444	294.531
Madhya Pradesh	401,655	41.452	3,373	165.719
Madras†	131,220	142.911	8,138	627.071
Mysore	95,108	78.975	3,248	607.951
Orissa	225,461	10.859	1,254	415.632
Punjab	63,744	172.721	3,200	115.237
Rajasthan	43,275	21.523	940	3.472
Uttar Pradesh	234,247	185.302	6,585	299.850
West Bengal††	103,771	139.417	10,805	1,563.395
Delhi	6,455	71.364	1,959	64.425

*Factories for which size of employment has not been recorded are 4,328
†Factories for which size of employment has not been recorded are 52,806
††Factories for which size of employment has not been recorded are 42,445

It is clear that in the use of electricity as industrial power Bombay was (and still is) indisputably the King both in low and medium and in high voltage, being miles ahead of Uttar Pradesh the nearest contender in low and medium voltage with her record of a mere 185.3 million kWh, and of West Bengal the nearest contender in high voltage with her 1,563.4 million kWh. The other big consumers of industrial electricity are Madras, Mysore, Bihar, Orissa, Uttar Pradesh, Kerala, Andhra, Madhya Pradesh, Punjab and Delhi. The above statement helps to read Table IV.4 showing the percentage distribution of industrial establishments using electricity by size of employment. Table IV.4 well underlines the pattern of distribution of small units and of medium and large units using electricity in its relation to the types of electrical power sold. Thus, the States with the most favourable and well graduated distribution are, again, apart from Assam and Himachal Pradesh, Maharashtra and Gujarat, West Bengal (the 7·62 per cent in 'Not-stated' should go to 1-person establishments), Kerala, Madras (the 6·47 per cent 'Not-stated' should go to 1-person establishments), Orissa, Mysore, Bihar, Uttar Pradesh, Punjab, Andhra Pradesh, Madhya Pradesh and Delhi. Assam's tea gardens and oil installations generate their own electricity which is not adequately reflected in the above statement but shows up in Table IV.9.

Table IV.4 reflects the appreciable percentage of use of electricity in 2-5 person establishments particularly in the States of Andhra Pradesh, Bihar, Gujarat, Punjab, Rajasthan and Uttar Pradesh. It also shows the high ratio of electricity used in single person establishments in Madhya Pradesh, Mysore, Rajasthan, Bihar, Tripura, Himachal Pradesh, Kerala, Maharashtra and Orissa.

Returning to Table IV.9 one notices the still smaller use made of liquid fuel. In fact only Andaman and Nicobar (18), North-East Frontier Agency (13), Assam (12 per cent), Rajasthan (11), Tripura (8), Gujarat (7·5), Punjab (6·3), Nagaland (5·9), Uttar Pradesh (5·4), Maharashtra (5·2), West Bengal (4·6), Mysore (3·9) and Delhi (3·5) are above the all India average of 3·16 per cent. The use of fuel oil is particularly low in Himachal Pradesh, Manipur, Sikkim, Orissa, Jammu and Kashmir and Madras, the proportion in each of these States being much below 1 per cent.

Pondicherry (3·02), Andhra Pradesh (2·26), Madhya Pradesh (1·94), Dadra and Nagar Haveli (1·81), Bihar (1·43) and Kerala (1·14) have low ratios also.

Table IV.9 shows that in the rural areas electricity in any appreciable proportion is employed only in the States of Kerala (4·11 per cent), Pondicherry (3·40), Punjab (2·99), Mysore (1·86), Madras (1·81), Gujarat (1·56), Andaman and Nicobar Islands (1·52) and Uttar Pradesh (1·00). All other States use electricity in less than 1 per cent of their rural industrial establishments. This is generally borne out by the values for States. The distribution by size of employment shows that all states except the following have less than one per cent of their single person industrial establishments in rural areas using electricity. Kerala (4·03), Mysore (2·13) and Punjab (1·09). It may come as a mild shock that the following states have as low a percentage of single person units in rural areas using electricity as is noted against them :

STATEMENT IV.2

Proportion of 1 person units using electricity in rural areas

State	Per cent of 1 person units in rural areas using electricity
1	2
Andhra Pradesh	0·20
Assam	0·18
Bihar	0·52
Jammu and Kashmir	0·08
Madhya Pradesh	0·07
Maharashtra	0·39
Orissa	0·03
Rajasthan	0·31
Uttar Pradesh	0·45
West Bengal	0·29

The picture for 2-5 person establishments is not very much brighter either. It shows that only in Pondicherry (3·93), Kerala (3·35), Madras (2·09) and Punjab (4·52) is the proportion higher than 2 per cent for 2-5 person rural industrial establishments. The values for the following States are particularly low, the remaining States being between 1 and 2 per cent :

STATEMENT IV.3

Proportion of 2-5 person units in rural areas using electricity

State/Union Territory	Per cent of 2-5 person units in rural areas using electricity
1	2
Madhya Pradesh	0·12
Maharashtra	0·32
Orissa	0·03
Rajasthan	0·54
West Bengal	0·62
Delhi	0·15
Himachal Pradesh	0·52
Tripura	0·11

This can lead to only one conclusion : that the use of modern power and of modern tools have found their way only to a very small extent indeed into small establishments in rural areas. The only states where electricity and consequently improved tools have made any dent at all in the small establishment sector of rural areas are Punjab, Kerala and Madras.

The following statement showing the total number of towns and villages in each State and the number of towns and villages electrified will afford some insight into the proportions of electrified industrial establishments in rural and urban areas.

STATEMENT IV.4

Number of villages and towns electrified in each State, 1960-61

State/Union Territory	Total number of towns	Number of towns electrified	Total number of inhabited villages	Total number of villages electrified
1	2	3	4	5
Andhra Pradesh	223	217	27,084	3,313
Assam	60	35	25,702	16
Bihar	153	128	67,665	2,371
Gujarat	181	151	18,584	585
Jammu and Kashmir	43	31	6,559	156
Kerala	92	85	1,573	785
Madhya Pradesh	219	152	70,414	375
Madras	339	334	14,124	4,436

STATEMENT IV.4

Number of villages and towns electrified in each State, 1960-61—concld.

State/Union Territory	Total number of towns	Number of towns electrified	Total number of inhabited villages	Total number of villages electrified
1	2	3	4	5
Maharashtra	266	195	35,851	821
Mysore	231	196*	26,377	4,255
Orissa	62	58	46,466	96
Punjab	189	177	21,269	2,839†
Rajasthan	145	96	32,241	70
Uttar Pradesh	267	213	112,624	153
West Bengal	184	159	38,465	323
Andaman and Nicobar Islands	1	1	399	5
Delhi	3	3	276	55
Himachal Pradesh	13	13	10,438	357
Laccadive, Minicoy and Amindivi Islands	..	..	10	..
Manipur	1	1	1,866	48
Tripura	6	5	4,932	3
Dadra and Nagar Haveli	..	..	72	2
Pondicherry	5	5	388	308
North-East Frontier Agency	..	..	2,451	4
Nagaland	3	3	814	4
SIKKIM	1	1	462	..

*Town groups and towns.
†Villages borne on jurisdiction list.

Even in urban areas the use of electricity in industrial establishments is of a low order particularly in single person and 2-5 person establishments. The proportion of urban units using electricity to all establishments in India is only 4·18 per cent. As is to be expected, the percentages for single person and 2-5 person urban establishments using electricity are also low, being 1·29 and 4·76 respectively. The lowest overall urban percentages occur in Bihar, Jammu and Kashmir, Madhya Pradesh, Orissa, Himachal Pradesh, Manipur and Sikkim in each of which the figure is less than 2 per cent. The percentages are highest in Delhi (52), Gujarat (15·4), Punjab (12), West Bengal (9·5), Mysore (6·2), Rajasthan (5·6), Maharashtra (5·3), Madras (4·9), Kerala (3·7), Uttar Pradesh (3·4), Assam (3·3), Tripura (2·8) and Andhra Pradesh (2·6). The proportion of electrified urban units in single person establishments is less than 1 per cent in Andhra Pradesh, Bihar, Jammu and Kashmir, Orissa, Himachal Pradesh and Madhya Pradesh and reasonably high only in Gujarat (5·4), Mysore (3·4), West Bengal (3·2), and Delhi (29·7). It is still low in States like Assam (1·2), Kerala (1·1), Madras (2·4), Maharashtra (1·9), Punjab (2·3), Rajasthan (2·9), Uttar Pradesh (1·2) and Tripura (1·6). The position for 2-5 person urban establishments is naturally enough very much better, the all-India figure being 4·8 per cent. But here, too, States like Andhra Pradesh (4·1), Assam (4·4), Bihar (2·2), Kerala (3·3), Madhya Pradesh (2), Orissa (0·2), Uttar Pradesh (4·7), Himachal Pradesh (0·6), Manipur (0·4), Tripura (2·7) and Pondicherry (4·3) are much below the all-India average, those above it being Delhi (46), Gujarat (16·7), Jammu and Kashmir (4·9), Madras (5), Maharashtra (5·6), Mysore (5·3), Punjab (15·8), Rajasthan (7·6) and West Bengal (9·7). Units employing more than 5 persons show a steadily rising trend with each successively higher employment bracket until in 100+ the urban units claim 52 per cent of the total of 70·4 per cent for all-India, a ratio exceeded by Gujarat (65 out of a total urban percentage of 83), Madhya Pradesh (53·5/91·4), Maharashtra (66/89), Mysore (60·6/85·2), Punjab (74·3/80·9), West Bengal (65/73), Delhi (58·3/74·3) and Himachal

Pradesh (87·5/87·5) in that bracket. There are striking quirks of low ratios in Assam, Bihar and Uttar Pradesh in some of the upper employment brackets caused no doubt by the classification of diesel generating sets as prime-movers in tea gardens, sugar mills and other factories. On the whole the electricity pyramid tapers off the least sharply in 100+ from 2-5 where the pyramid is at its broadest (Table IV.9).

The use of liquid fuel is much more prevalent in rural than urban areas. Again, except in Kerala and Madras where the contrary situation obtains, the proportion of rural establishments using liquid fuel is substantially higher everywhere than of those using electricity. The most extensive use of liquid fuel in rural areas obtains in Assam (8·9 per cent), Rajasthan (8), Tripura (6·6), Gujarat (5·9), Punjab (5), West Bengal (4·3), Uttar Pradesh (4·2) and Maharashtra (4·2). In Kerala while the proportion of rural establishments using electricity is 4·11 that using liquid fuel is only 1·05. In Madras the difference is much less, being 1·81 per cent for electricity and 0·74 per cent for liquid fuel.

The use of liquid fuel in urban areas is lower not only than that of electricity but even that of solid fuel in rural areas, which is so prominent in all states except Andhra Pradesh (only 0·05 per cent, possibly due to under enumeration), Gujarat (3·79 per cent), Kerala (0·02 per cent), Madras (0·47 per cent), Mysore (0·07 again possibly due to under enumeration), Punjab (0·17) and West Bengal (0·15, possibly due to under enumeration).

The use of liquid fuel shows an irregular pattern of rise and fall both in the rural and urban ratios varying with the size of employment. Thus, in several states the rural ratios go up steadily with the employment bracket as in Assam. In some others, as in Bihar, Gujarat and Jammu and Kashmir there is a dip in the 6-9 range. In still others there are irregular peaks and troughs in the ratios, while there is yet another group, as in Kerala and Orissa which have a dip at 100+. There are again other states like Andhra Pradesh, Madras, Maharashtra and Uttar Pradesh, where the ratio progressively rises up to 10-19 or even 20-49 and then gradually declines in the still higher groups. The picture is similar for urban areas. The employment range pyramid for liquid fuel, is, like electricity, generally widest at 2-5, tapering off, however, much more sharply than electricity in the upper groups.

Turning to the distribution of industrial establishments by employment size using solid fuel, one is struck by the high ratios obtaining in all size classes of employment in the rural and urban areas of Assam, Bihar, Gujarat, Jammu and Kashmir, Orissa, Rajasthan, Uttar Pradesh, Andaman and Nicobar Islands, Delhi, Manipur, Tripura and Nagaland. The comparatively high ratios in the upper size classes are of course due to boilers using coal, wood or bagasse for generating steam or electricity and one notices how not only in some of the states omitted from the above list but also in Bihar and West Bengal the size group employing 100 persons or more uses a much lower proportion of solid fuel than the smaller size groups of employment. Solid fuel exhibits a pyramid very much like liquid fuel except that the base is at its widest in the single person in Bihar, Jammu and Kashmir, Maharashtra, Rajasthan, Uttar Pradesh, Tripura and Manipur.

The following Statement shows what has been used in the definition of other power.

STATEMENT IV.5

Definitions of 'other power' in different States and Union Territories

State/Union Territory	Sources of other power
1	2
Andhra Pradesh	Paddy husk, ground nut shell, saw dust mostly in rice or oil mills
Assam	'Some factories use liquid fuel as well as coal or wood as a source of power and the Enumerators wrote the words liquid fuel, coal, wood etc..... It was not possible to properly classify them and so they were lumped up together under the heads 'other power'
Bihar	Grass, leaves, cowdung cakes for potteries manufacturing earthenware and earthen images, manufacture of muri, murki chira etc. and indigenous liquor; paddy husk for manufacture of par boiled rice; gas for welding and animal power for oil ghanis
Gujarat	Bullocks for oil ghanis
Jammu and Kashmir	Water and wind mills. Animal power
Kerala ..	Gas for running gas engines or for welding
Madhya Pradesh	Gas and steam, gas for aerated water
Madras	Air power, gas and steam and which could not be classified under other sources of power
Mysore	Steam, bullocks, carbon-dioxide and in case there was no entry in column 8 of the Houselist
Orissa	Animal power
Punjab	Water mills run by hill streams or irrigation canals. Animal power
Rajasthan ..	Gas used for welding. Bullocks for oil ghanis, water mills. Wind mills
Uttar Pradesh ..	Water mills for production of rice, atta, flour etc., by milling, dehusking and processing crops and foodgrains; animal power for production of edible fats and oils and gas for welding
West Bengal ..	Gas
Delhi	Steam and gas
Himachal Pradesh	Water power and bullocks
Manipur	Bullocks for oil crushing and sugarcane crushing and water mills used for husking the paddy
Tripura	Jute sticks, pith, fodder and animal power

The only states in which other fuel is used in appreciable proportions in urban areas are Uttar Pradesh (2·7 per cent), Delhi (2·5), Rajasthan (1·5), Jammu and Kashmir (nearly 1) and Bihar (0·7). It is these States which have pushed up the urban percentage for all India to 0·5. It is curious that 'other power' too has a fair distribution in all employment ranges not only in rural but urban areas as well, except in 100+ in Andhra Pradesh and Punjab, 50+ in Bihar and Madras, and 10+ in Gujarat, Jammu and Kashmir and Orissa, in 6+ in Madhya Pradesh. Maharashtra has not recorded any workshop or factory working on other fuel.

The largest proportions of workshops and establishments run on no power and they derive their main strength from workshops employing a limit of 19 persons. Up to 19 persons workshops and factories using no power are very much more than 50 per cent not only for India as a whole, but also for Andhra Pradesh, Orissa, Uttar Pradesh, West Bengal and Tripura. In Assam and Delhi the proportion of no power is nowhere above 44 and 41 per cent respectively in any employment group. In Bihar, Gujarat and Jammu and Kashmir, Punjab, Rajasthan the proportion goes much below 50 per cent after 2-5. But it is significant that the proportions are uniformly high in employment ranges up to 49 in Kerala, Maharashtra, Madras and Mysore and upto 99 in Madhya Pradesh. The urban component in these high ratios of no power is by no means small. In fact the urban ratios are higher than the rural ones in each of the employment ranges 6-9, 10-19, 20-49, 50-99 and 100+ for all India, a pattern broadly repeated in Andhra Pradesh, Assam, Gujarat, Jammu and Kashmir, Madras, Maharashtra, Mysore, Punjab, Rajasthan, and West Bengal.

TABLE IV.1

Percentage distribution of total industrial establishments by size of employment, 1960

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	53·03	40·73	3·37	1·64	0·78	0·23	0·22
Andhra Pradesh	100·00	63·74	31·28	2·51	1·27	0·87	0·21	0·12
Assam	100·00	54·57	28·11	5·28	3·67	3·28	2·30	2·79
Bihar	100·00	54·85	41·39	2·06	1·03	0·47	0·10	0·10
Gujarat	100·00	42·48	47·50	5·38	2·78	1·25	0·26	0·35
Jammu and Kashmir ..	100·00	76·61	19·93	2·08	0·84	0·35	0·12	0·07
Kerala	100·00	35·81	49·58	7·00	4·32	1·97	0·66	0·66
Madhya Pradesh	100·00	61·97	36·29	0·91	0·47	0·26	0·06	0·04
Madras	100·00	44·90	45·92	4·95	2·49	1·17	0·30	0·27
Maharashtra	100·00	56·04	37·08	3·47	1·82	0·97	0·31	0·31
Mysore	100·00	41·16	51·16	4·38	1·97	0·90	0·22	0·21
Orissa	100·00	37·61	59·48	2·36	0·39	0·11	0·03	0·02
Punjab	100·00	51·67	39·19	4·36	2·95	1·24	0·36	0·23
Rajasthan	100·00	52·42	42·33	3·13	1·23	0·51	0·17	0·21
Uttar Pradesh	100·00	52·79	39·51	4·97	1·73	0·62	0·23	0·15
West Bengal	100·00	48·53	38·21	6·38	3·90	1·73	0·61	0·64
Delhi	100·00	10·36	47·86	18·49	11·19	7·52	2·50	2·08
Himachal Pradesh ..	100·00	89·10	10·49	0·26	0·07	0·05	0·01	0·02
Manipur	100·00	76·21	21·71	1·45	0·44	0·14	0·04	0·01
Tripura	100·00	45·40	44·01	4·96	3·03	1·44	0·87	0·29
Nagaland	100·00	41·18	50·98	1·96	1·96	0	3·92	0

TABLE IV.2

Percentage distribution of industrial establishments in rural areas by size of employment

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	58·89	37·73	1·96	0.80	0·41	0·12	0·09
Andhra Pradesh	100·00	71·30	26·21	1·27	0·57	0·54	0·08	0·03
Assam	100·00	58·64	24·92	3·63	2·54	3·37	3·08	3·82
Bihar	100·00	58·53	38·76	1·54	0·69	0·34	0·08	0·06
Gujarat	100·00	53·58	41·57	2·05	1·65	0·81	0·20	0·14
Jammu and Kashmir ..	100·00	83·77	14·13	1·37	0·44	0·19	0·07	0·03
Kerala	100·00	40·03	46·34	6·46	4·13	1·80	0·60	0·64
Madhya Pradesh	100·00	65·54	33·56	0·49	0·24	0·14	0·02	0·01
Madras	100·00	48·10	44·78	4·13	1·80	0·82	0·18	0·19
Maharashtra	100·00	64·33	33·49	1·02	0·51	0·48	0·11	0·06
Mysore	100·00	46·55	49·20	2·67	1·08	0·38	0·06	0·06
Orissa	100·00	37·24	60·02	2·32	0·32	0·07	0·02	0·01
Punjab	100·00	68·81	28·29	1·35	0·90	0·41	0·15	0·09
Rajasthan	100·00	57·71	39·65	1·79	0·47	0·21	0·09	0·08
Uttar Pradesh	100·00	58·93	35·08	4·11	1·22	0·41	0·19	0·06
West Bengal	100·00	59·53	33·82	3·24	1·94	0·89	0·29	0·29
Delhi	100·00	13·85	42·86	5·19	3·90	6·06	8·66	19·48
Himachal Pradesh ..	100·00	89·96	9·74	0·23	0·04	0·02	0·01	N
Manipur	100·00	71·70	26·43	1·38	0·37	0·07	0·04	0·01
Tripura	100·00	44·48	43·59	5·27	3·00	1·87	1·30	0·49
Nagaland	100.00	61·54	30·77	0	0	0	7·69	0

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

TABLE IV.3

Percentage distribution of industrial establishments in urban areas by size of employment

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	39·19	47·81	6·72	3·60	1·66	0·51	0·51
Andhra Pradesh	100·00	39·40	47·60	6·52	3·50	1·95	0·63	0·40
Assam	100·00	47·19	33·90	8·26	5·73	3·13	0·87	0·92
Bihar	100.00	36·82	54·26	4·63	2·70	1·07	0·23	0·29
Gujarat	100.00	34·10	51·98	7·88	3·64	1·58	0·30	0·52
Jammu and Kashmir	100·00	41·84	48·13	5·51	2·77	1·13	0·37	0·25
Kerala	100·00	27·13	56·25	8·09	4·72	2·33	0·78	0·70
Madhya Pradesh	100·00	44·30	49·77	3·02	1·59	0·85	0·24	0·23
Madras	100·00	42·32	46·83	5·61	3·04	1·46	0·40	0·34
Maharashtra	100·00	41·79	43·23	7·70	4·06	1·82	0·65	0·75
Mysore	100·00	34·69	53·52	6·43	3·02	1·53	0·42	0·39
Orissa	100·00	44·74	49·05	3·04	1·68	0·89	0·27	0·33
Punjab	100·00	34·37	50·19	7·40	5·02	2·08	0·57	0·37
Rajasthan	100·00	44·81	46·17	5·06	2·33	0·95	0·29	0·39
Uttar Pradesh	100·00	40·96	48·03	6·64	2·72	1·02	0·30	0·33
West Bengal	100·00	32·68	44·54	10·90	6·73	2·94	1·06	1·15
Delhi	100·00	10·27	48·00	18·87	11·39	7·56	2·32	1·59
Himachal Pradesh	100·00	72·76	24·67	0·79	0·68	0·63	0·10	0·37
Manipur	100·00	93·87	3·19	1·73	0·73	0·44	0·04	0
Tripura	100·00	46·74	44·61	4·50	3·08	0·83	0·24	0
Nagaland	100·00	20·00	72·00	4·00	4·00	0	0	0

TABLE IV.4

Percentage distribution of total industrial establishments using electricity by size of employment

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	18·63	46·80	14·30	9·69	5·90	2·04	2·64
Andhra Pradesh	100·00	10·96	50·51	13·98	11·97	8·55	2·11	1·92
Assam	100·00	5·06	37·13	18·56	14·35	12·45	6·12	6·33
Bihar	100·00	24·64	57·02	7·08	4·95	3·36	1·05	1·90
Gujarat	100·00	15·77	51·34	18·77	7·92	3·78	0·93	1·49
Jammu and Kashmir	100·00	19·49	49·61	14·47	7·28	6·00	1·97	1·18
Kerala	100·00	23·83	42·71	11·31	8·46	6·60	3·84	3·25
Madhya Pradesh	100.00	29·83	49·73	8·61	5·78	3·27	1·19	1·59
Madras	100·00	15·28	48·90	12·81	10·31	7·61	2·30	2·79
Maharashtra	100·00	22·28	37·84	16·32	10·24	6·77	2·76	3·79
Mysore	100·00	28·37	41·27	15·00	8·17	4·08	1·31	1·80
Orissa	100·00	19·88	40·82	13·35	15·78	6·07	1·82	2·28
Punjab	100·00	11·64	53·21	13·73	12·74	5·62	1·67	1·39
Rajasthan	100·00	27·48	56·50	7·69	3·77	2·32	0·75	1·49
Uttar Pradesh	100·00	19·51	55·94	10·89	6·66	3·72	1·18	2·10
West Bengal	100·00	15·08	39·16	16·71	13·37	7·88	3·07	4·73
Delhi	100·00	6·06	42·39	21·35	14·20	10·36	3·23	2·41
Himachal Pradesh	100·00	24·30	40·19	6·54	6·54	13·08	1·87	7·48
Manipur	100·00	0	30·77	17·95	20·51	28·21	2·56	0
Tripura	100.00	24·59	42·62	19·67	8·20	3·28	1·64	0
Nagaland	0	0	0	0	0	0	0	0

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

TABLE IV.5

Percentage distribution of all industrial establishments using liquid fuel by size of employment

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	35·29	53·88	4·37	3·08	2·09	0·69	0·60
Andhra Pradesh	100·00	13·83	61·20	11·54	7·98	4·77	0·62	0·06
Assam	100·00	13·57	38·82	10·69	9·55	10·46	7·20	9·71
Bihar	100·00	21·49	68·17	3·37	2·73	2·12	1·10	1·02
Gujarat	100·00	34·38	54·38	4·69	3·17	2·46	0·50	0·42
Jammu and Kashmir	100·00	29·88	55·60	4·56	4·15	3·73	0·83	1·25
Kerala	100·00	33·33	36·62	7·62	6·88	9·12	3·59	2·84
Madhya Pradesh	100·00	43·86	51·30	2·14	1·49	0·98	0·17	0·06
Madras	100·00	16·78	62·38	9·19	6·83	3·96	0·46	0·40
Maharashtra	100·00	56·17	35·83	3·42	2·75	1·42	0·29	0·12
Mysore	100·00	39·25	49 67	4·62	3·35	2·11	0·76	0·24
Orissa	100·00	49·19	39·61	3·31	3·99	2·03	1·53	0·34
Punjab	100·00	15·07	75·56	4·45	2·72	1·49	0·59	0·12
Rajasthan	100·00	24·71	67·86	4·15	1·67	0·96	0·36	0·29
Uttar Pradesh	100·00	23·19	67·42	4·51	2·65	1·62	0·27	0·34
West Bengal	100·00	41·92	48·28	2·38	2·03	2·22	1·33	1·84
Delhi	100·00	12·63	54·27	17·40	7·51	5·46	1·71	1·02
Himachal Pradesh	100·00	48·57	34·29	14·28	2·86	0	0	0
Manipur	100·00	0	41·67	58·33	0	0	0	0
Tripura	100·00	28.31	37·35	3,01	12·05	9·04	8·43	1·81
Nagaland	100·00	0	66·67	0	0	0	33·33	0

TABLE IV.6

Percentage distribution of all industrial establishments using solid fuel (coal, wood, bagasse etc.) by size of employment

State/Union Territory	Size of employment							
	Total	1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	47·92	46·56	2·94	1·32	0·73	0·28	0·25
Andhra Pradesh	100·00	21·13	42·25	9·86	12·67	11·27	2·82	0
Assam	100·00	30·96	43·25	6·04	4·04	5·00	4·92	5·79
Bihar	100·00	52·37	42·30	2·62	1·67	0·88	0·13	0·03
Gujarat	100·00	37·78	53·74	3·76	2·70	1·08	0·26	0·68
Jammu and Kashmir	100·00	58·84	37·93	1·93	0·97	0·15	0·11	0·07
Kerala	100·00	11·11	29·63	14·82	11·11	14·82	3·70	14·81
Madhya Pradesh	100·00	16·18	27·94	4·41	7·35	8·83	7·35	27·94
Madras	100·00	25·12	59·69	7·69	3·60	1·75	1·22	0·93
Maharashtra	100·00	37·50	25·00	12·50	25·00	0	0	0
Mysore	100·00	29·20	51·52	5·23	9·64	3·03	0·55	0·83
Orissa	100·00	42·15	55·37	1·92	0·35	0·12	0·04	0·05
Punjab	100·00	21·07	33·33	15·32	14·18	8·43	5·75	1·92
Rajasthan	100·00	58·59	36·87	3·06	0·85	0·33	0·13	0·17
Uttar Pradesh	100·00	52·86	39·48	4·63	1·57	0·85	0·32	0·29
West Bengal	100·00	11·44	20·64	9·19	12·76	21·95	16·51	7·51
Delhi	100·00	14·45	52·77	14·59	7·11	4·57	2·69	3·82
Himachal Pradesh	100·00	0	0	100·00	0	0	0	0
Manipur	100·00	34·91	46·55	13·82	3·64	0·36	0·36	0·36
Tripura	100·00	48·77	45·25	3·34	1·41	1·06	0	0·17
Nagaland	100·00	38·10	57·14	0	0	0	4·76	0

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

TABLE IV.7

Percentage distribution of all industrial establishments using other power by size of employment

State/Union Territory	Total	Size of employment						
		1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	67·84	29·32	2·04	0·51	0·18	0·08	0·03
Andhra Pradesh	100·00	25·71	47·36	12·98	8·19	4·54	1·22	0
Assam	100·00	22·00	38·00	14·00	14·00	6·00	4·00	2·00
Bihar	100·00	47·99	50·44	1·19	0·25	0·09	0·03	0·01
Gujarat	100·00	72·46	23·95	2·99	0	0·60	0	0
Jammu and Kashmir	100·00	94·59	4·35	0·94	0·09	0·03	0	0
Kerala	100·00	0	36·37	0	0	36·36	0	27·27
Madhya Pradesh	100·00	45·45	54·55	0	0	0	0	0
Madras	100·00	19·17	64·66	9·78	4·51	1·50	0·38	0
Maharashtra	0	0	0	0	0	0	0	0
Mysore	100·00	41·29	50·64	3·85	1·47	2·02	0·55	0·18
Orissa	100·00	30·96	66·37	2·58	0·08	0·01	0	0
Punjab	100·00	89·88	9·44	0·46	0·11	0·09	0·02	0
Rajasthan	100·00	64·22	33·57	1·51	0·49	0·05	0·05	0·11
Uttar Pradesh	100·00	65·33	29·23	4·07	1·00	0·17	0·17	0·03
West Bengal	100·00	12·36	41·57	17·98	12·64	9·83	3·65	1·97
Delhi	100·00	10·75	47·66	22·90	8·88	6·07	0·47	3·27
Himachal Pradesh	100·00	98·34	1·57	0·09	0	0	0	0
Manipur	100·00	27·27	59·09	13·64	0	0	0	0
Tripura	100·00	24·67	71·33	4·00	0	0	0	0
Nagaland	0	0	0	0	0	0	0	0

TABLE IV.8

Percentage distribution of all industrial establishments using no power by size of employment

State/Union Territory	Total	Size of employment						
		1	2-5	6-9	10-19	20-49	50-99	100+
1	2	3	4	5	6	7	8	9
INDIA	100·00	55·50	39·97	2·76	1·17	0·44	0·11	0·05
Andhra Pradesh	100·00	67·25	29·70	1·78	0·64	0·46	0·12	0·05
Assam	100·00	74·61	19·97	2·96	1·58	0·62	0·13	0·13
Bihar	100·00	59·77	37·52	1·74	0·70	0·19	0·04	0·04
Gujarat	100·00	50·56	45·10	2·29	1·47	0·50	0·06	0·02
Jammu and Kashmir	100·00	68·53	26·77	2·79	1·26	0·44	0·14	0·07
Kerala	100·00	36·88	50·34	6·62	3·94	1·47	0·35	0·40
Madhya Pradesh	100·00	62·84	35·77	0·77	0·37	0·20	0·04	0·01
Madras	100·00	47·61	45·35	4·29	1·86	0·67	0·14	0·08
Maharashtra	100·00	58·22	37·10	2·64	1·22	0·57	0·15	0·10
Mysore	100·00	42·47	52·15	3·39	1·31	0·54	0·09	0·05
Orissa	100·00	36·08	61·03	2·48	0·33	0·07	0·01	N
Punjab	100·00	56·34	38·95	2·96	1·26	0·41	0·07	0·01
Rajasthan	100·00	57·00	38·81	2·58	1·09	0·34	0·10	0·08
Uttar Pradesh	100·00	54·96	38·14	4·85	1·50	0·38	0·16	0·01
West Bengal	100·00	53·09	37·62	5·33	2·83	0·87	0·20	0·06
Delhi	100·00	16·21	55·05	14·83	8·31	4·04	1·19	0·37
Himachal Pradesh	100·00	81·89	17·64	0·34	0·09	0·03	0·01	0
Manipur	100·00	77·46	21·08	1·07	0·32	0·05	0·02	0
Tripura	100·00	50·09	40·81	5·39	2·65	0·62	0·26	0·18
Nagaland	100·00	48·15	44·45	3·70	3·70	0	0	0

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2–5	6–9	10–19	20–49	50–99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					INDIA					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Rural	70·26	79·63	65·09	40·74	34·50	36·64	35·71	29·63	59·33
	Urban	29·74	20·37	34·91	59·26	65·50	63·36	64·29	70·37	40·67
Electricity	Total	5·03	1·74	5·78	21·34	29·83	38·20	43·81	61·76	2·04
	Rural	0·85	0·45	1·02	1·99	3·30	5·14	7·21	9·64	0·45
	Urban	4·18	1·29	4·76	19·35	26·53	33·06	36·60	52·12	1·59
Liquid fuel	*Total*	*3·16*	*2·17*	*4·18*	*4·09*	*5·94*	*8·48*	*9·25*	*8·86*	*1·31*
	Rural	2·56	1·92	3·38	2·23	3·16	4·90	6·29	6·97	1·26
	Urban	0·60	0·25	0·80	1·86	2·78	3·58	2·96	1·89	0·05
Coal, wood and bagasse	Total	7·89	7·73	9·03	6·88	6·37	7·39	9·40	9·32	0·17
	Rural	5·99	6·22	6·64	3·74	3·41	4·26	5·90	5·67	0·11
	Urban	1·90	1·51	2·39	3·14	2·96	3·13	3·50	3·65	0·06
Other power	Total	5·13	7·12	3·69	3·10	1·60	1·20	1·76	0·60	0·03
	Rural	4·66	6·72	3·15	2·14	0·85	0·51	0·98	0·15	0·02
	Urban	0·47	0·40	0·54	0·96	0·75	0·69	0·78	0·45	0·01
No power	Total	78·79	81·24	77·32	64·59	56·26	44·73	35·78	19·46	96·45
	Rural	56·20	64·32	50·90	30·64	23·78	21·83	15·33	7·20	57·49
	Urban	22·59	16·92	26·42	33·95	32·48	22·90	20·45	12·26	38·96
					ANDHRA PRADESH					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	76·29	85·34	63·92	38·54	34·62	47·07	28·03	19·77	..
	Urban	23·71	14·66	36·08	61·46	65·38	52·93	71·97	80·23	..
Electricity	Total	3·42	0·59	5·53	19·04	32·27	33·53	34·71	55·93	..
	Rural	0·81	0·20	1·42	3·43	5·49	7·53	4·46	8·47	..
	Urban	2·61	0·39	4·11	15·61	26·78	26·00	30·25	47·46	..
Liquid fuel	Total	2·26	0·49	4·41	10·35	14·18	12·32	6·69	1·13	..
	Rural	1·94	0·46	3·97	7·79	10·20	8·59	2·87	1·13	..
	Urban	0·32	0·03	0·44	2·56	3·98	3·73	3·82	0	..
Coal, wood and bagasse	Total	0·09	0·03	0·13	0·37	0·94	1·22	1·27	0	..
	Rural	0·05	0·02	0·07	0·19	0·52	0·31	0	0	..
	Urban	0·04	0·01	0·06	0·18	0·42	0·91	1·27	0	..
Other power	Total	0·82	0·33	1·24	4·23	5·28	4·26	4·78	0	..
	Rural	0·60	0·28	0·95	2·91	2·20	1·67	2·23	0	..
	Urban	0·22	0·05	0·29	1·32	3·08	2·59	2·55	0	..
No power	Total	93·41	98·56	88·69	66·01	47·33	48·67	52·55	42·94	..
	Rural	72·89	84·38	57·51	24·22	16·21	28·97	18·47	10·17	..
	Urban	20·52	14·18	31·18	41·79	31·12	19·70	34·08	32·77	..

TABLE IV. 9

ercentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					ASSAM					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Rural	64·41	75·52	57·08	44·33	44·44	66·02	86·56	88·27	66·77
	Urban	35·59	24·48	42·92	55·67	55·56	33·98	13·44	11·73	33·23
Electricity	Total	4·30	1·42	5·68	15·12	16·79	16·30	11·46	9·77	0
	Rural	0·97	0·18	1·26	2·23	2·47	3·59	6·32	4·23	0
	Urban	3·33	1·24	4·42	12·89	14·32	12·71	5·14	5·54	0
Liquid fuel	Total	11·97	10·61	16·52	24·23	31·11	38·12	37·55	41·69	0
	Rural	8·92	9·19	12·13	14·44	16·29	26·80	32·81	39·74	0
	Urban	3·05	1·42	4·39	9·79	14·82	11·32	4·74	1·95	0
Coal, wood and bagasse	Total	21·77	44·05	33·50	24·91	23·95	33·15	46·64	45·28	0
	Rural	15·99	37·17	20·72	14·77	13·33	29·28	45·06	43·65	0
	Urban	5·78	6·88	12·78	10·14	10·62	3·87	1·58	1·63	0
Other power	Total	0·45	0·65	0·61	1·20	1·73	0·83	0·79	0·33	0
	Rural	0·21	0·29	0·32	0·17	0·99	0·55	0·39	0	0
	Urban	0·24	0·36	0·29	1·03	0·74	0·28	0·40	0·33	0
No power	Total	61·51	43·27	43·69	34·54	26·42	11·60	3·56	2·93	100·00
	Rural	38·32	28·69	22·65	12·72	11·36	5·80	1·98	0·65	66·77
	Urban	23·19	14·58	21·04	21·82	15·06	5·80	1·58	2·28	33·23
					BIHAR					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	83·01	88·59	77·72	61·87	55·60	61·03	62·95	48·68	..
	Urban	16·99	11·41	22·28	38·13	44·40	38·97	37·05	51·32	..
Electricity	Total	2·62	1·18	3·61	9·00	12·54	18·86	26·29	52·63	..
	Rural	0·99	0·52	1·41	1·93	2·61	4·80	13·94	18·86	..
	Urban	1·63	0·66	2·20	7·07	9·93	14·06	12·35	33·77	..
Liquid fuel	Total	1·43	0·56	2·36	2·34	3·78	6·49	15·14	15·35	..
	Rural	1·12	0·47	1·84	1·33	2·13	5·16	12·75	14·91	..
	Urban	0·31	0·09	0·52	1·01	1·65	1·33	2·39	0·44	..
Coal, wood and bagasse	Total	26·06	24·88	26·63	33·16	42·06	49·20	31·87	8·77	..
	Rural	19·42	20·42	17·82	17·79	27·16	37·55	21·91	3·51	..
	Urban	6·64	4·46	8·81	15·37	14·90	11·65	9·96	5·26	..
Other power	Total	13·00	11·38	15·84	7·51	3·09	2·67	3·59	0·88	..
	Rural	12·27	10·82	14·84	7·11	2·57	2·31	3·59	0·88	..
	Urban	0·73	0·56	1·00	0·40	0·52	0·36	0	0	..
No power	Total	56·89	62·00	51·56	47·99	38·53	22·78	23·11	22·37	..
	Rural	49·21	56·36	41·81	33·71	21·13	11·21	10·76	10·52	..
	Urban	7·68	5·64	9·75	14·28	17·40	11·57	12·35	11·85	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					GUJARAT					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	42·99	54·23	37·62	16·41	25·43	27·93	32·52	16·90	..
	Urban	57·01	45·77	62·38	83·59	74·57	72·07	67·48	83·10	..
Electricity	Total	16·92	6·28	18·29	59·08	48·16	51·25	61·17	71·13	..
	Rural	1·56	0·92	1·63	3·23	3·18	6·01	14·56	5·99	..
	Urban	15·36	5·36	16·66	55·85	44·98	45·24	46·61	65·14	..
Liquid fuel	Total	7·45	6·03	8·53	6·50	8·47	14·71	14·56	8·80	..
	Rural	5·85	5·37	6·68	2·72	4·17	7·11	9·71	5·98	..
	Urban	1·60	0·66	1·85	3·78	4·30	7·60	4·85	2·82	..
Coal, wood and bagasse	Total	8·10	7·21	9·16	5·66	7·85	7·01	8·25	15·49	..
	Rural	3·79	4·47	3·49	1·04	4·44	2·80	2·91	3·87	..
	Urban	4·31	2·74	5·67	4·62	3·41	4·21	5·34	11·62	..
Other power	Total	0·21	0·36	0·10	0·12	0	0·10	0	0	..
	Rural	0·10	0·20	0·03	0·02	0	0	0	0	..
	Urban	0·11	0·16	0·07	0·10	0	0·10	0	0	..
No power	Total	67·32	80·12	63·92	28·64	35·52	26·93	16·02	4·58	..
	Rural	31·69	43·27	25·79	9·40	13·64	12·01	5·34	1·06	..
	Urban	35·63	36·85	38·13	19·24	21·88	14·92	10·68	3·52	..
					JAMMU AND KASHMIR					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	82·93	90·68	58·79	54·66	43·59	44·52	48·00	40·00	..
	Urban	17·07	9·32	41·21	45·34	56·41	55·48	52·00	60·00	..
Electricity	Total	2·43	0·62	6·04	16·92	21·08	41·78	40·00	40·00	..
	Rural	0·45	0·08	1·17	2·07	4·84	11·64	14·00	10·00	..
	Urban	1·98	0·54	4·87	14·85	16·24	30·14	26·00	30·00	..
Liquid fuel	Total	0·57	0·22	1·60	1·26	2·85	6·16	4·00	10·00	..
	Rural	0·51	0·20	1·45	1·15	2·28	6·16	4·00	10·00	..
	Urban	0·06	0·02	0·15	0·11	0·57	0	0	0	..
Coal, wood and bagasse	Total	21·64	16·62	41·19	20·14	25·07	9·59	20·00	20·00	..
	Rural	15·59	13·20	25·31	12·43	14·53	7·54	18·00	16·67	..
	Urban	6·05	3·42	15·88	7·71	10·54	2·05	2·00	3·33	..
Other power	Total	44·48	54·92	9·71	20·14	4·56	3·43	0	0	..
	Rural	43·51	53·81	9·09	20·14	4·56	3·43	0	0	..
	Urban	0·97	1·11	0·62	0	0	0	0	0	..
No power	Total	30·88	27·62	41·46	41·54	46·44	39·04	36·00	30·00	..
	Rural	22·87	23·39	21·77	18·87	17·38	15·75	12·00	3·33	..
	Urban	8·01	4·23	19·69	22·67	29·06	23·29	24·00	26·67	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					KERALA					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	67·27	75·20	62·87	62·16	64·26	61·37	61·10	65·19	..
	Urban	32·73	24·80	37·13	37·84	35·74	38·63	38·90	34·81	..
Electricity	Total	7·76	5·16	6·68	12·54	15·18	25·95	45·43	38·18	..
	Rural	4·11	4·03	3·35	4·60	4·76	9·72	23·76	18·96	..
	Urban	3·65	1·13	3·33	7·94	10·42	16·23	21·67	19·22	..
Liquid fuel	Total	1·14	1·07	0·85	1·25	1·82	5·29	6·27	4·94	..
	Rural	1·05	1·04	0·78	1·20	1·58	4·77	4·44	3·38	..
	Urban	0·09	0·03	0·07	0·05	0·24	0·52	1·83	1·56	..
Coal, wood and bagasse	Total	0·05	0·01	0·03	0·10	0·12	0·35	0·26	1·04	..
	Rural	0·02	0	0	0	0·12	0·35	0·26	0·26	..
	Urban	0·03	0·01	0·03	0·10	0	0	0	0·78	..
Other power	Total	0·02	0	0·01	0	0	0·35	0	0·78	..
	Rural	0·01	0	0·01	0	0	0·35	0	0·78	..
	Urban	0·01	0	0	0	0	0	0	0	..
No power	Total	91·03	93·76	92·43	86·11	82·88	68·06	48·04	55·06	..
	Rural	62·08	70·13	58·73	56·36	57·80	46·18	32·64	41·81	..
	Urban	28·95	23·63	33·70	29·75	25·08	21·88	15·40	13·25	..
					MADHYA PRADESH					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	83·19	87·98	76·94	44·25	43·15	45·19	29·49	8·62	..
	Urban	16·81	12·02	23·06	55·75	56·85	54·81	70·51	91·38	..
Electricity	Total	1·51	0·73	2·07	14·24	18·53	18·87	31·20	55·75	..
	Rural	0·10	0·07	0·12	0·27	1·05	1·04	1·29	2·30	..
	Urban	1·41	0·66	1·95	13·97	17·48	17·83	29·91	53·45	..
Liquid fuel	Total	1·94	1·37	2·74	4·55	6·14	7·26	5·55	2·87	..
	Rural	1·54	1·17	2·12	2·14	2·47	2·45	2·56	1·15	..
	Urban	0·40	0·20	0·62	2·41	3·67	4·81	2·99	1·72	..
Coal, wood and bagasse	Total	0·02	N	0·01	0·08	0·26	0·57	2·14	10·92	..
	Rural	N	N	N	0	0·10	0·10	0·43	1·15	..
	Urban	0·02	N	0·01	0·08	0·16	0·47	1·71	9·77	..
Other power	Total	N	N	0·01	0	0	0	0	0	..
	Rural	N	N	0	0	0	0	0	0	..
	Urban	N	N	0·01	0	0	0	0	0	..
No power	Total	96·53	97·90	95·17	81·13	75·07	73·30	61·11	30·46	..
	Rural	81·55	86·74	74·70	41·84	39·53	41·60	25·21	4·02	..
	Urban	14·98	11·16	20·47	39·29	35·54	31·70	35·90	26·44	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					MADRAS					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Rural	44·54	45·38	43·43	37·11	32·27	31·22	27·24	30·83	49·20
	Urban	55·46	54·62	56·57	62·89	67·73	68·78	72·76	69·17	50·80
Electricity	Total	6·66	3·38	7·10	17·25	27·61	43·18	50·86	68·79	1·57
	Rural	1·81	0·94	2·09	3·20	5·61	10·05	11·04	17·15	0·69
	Urban	4·85	2·44	5·01	14·05	22·00	33·13	39·82	51·64	0·88
Liquid fuel	Total	0·91	0·32	1·23	1·68	2·49	3·06	1·38	1·35	0·35
	Rural	0·74	0·27	1·05	1·13	1·57	1·73	0·86	0·97	0·32
	Urban	0·17	0·05	0·18	0·55	0·92	1·33	0·52	0·38	0·03
Coal, wood and bagasse	Total	1·07	1·18	1·39	1·66	1·55	1·59	4·31	3·66	0·23
	Rural	0·47	0·63	0·56	0·43	0·54	0·80	3·10	3·08	0·15
	Urban	0·60	0·55	0·83	1·23	1·01	0·79	1·21	0·58	0·08
Other power	Total	0·14	0·12	0·19	0·27	0·25	0·18	0·17	0	0·02
	Rural	0·05	0·04	0·07	0·07	0·10	0·09	0·17	0	0·01
	Urban	0·09	0·08	0·12	0·20	0·15	0·09	0	0	0·01
No power	Total	91·22	95·00	90·09	79·14	68·10	51·99	43·28	26·20	97·83
	Rural	41·47	43·50	39·66	32·28	24·45	18·55	12·07	9·63	48·03
	Urban	49·75	51·50	50·43	46·86	43·65	33·44	31·21	16·57	49·80
					MAHARASHTRA					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	63·19	72·55	57·08	18·47	17·84	31·32	22·30	11·09	..
	Urban	36·81	27·45	42·92	81·53	82·16	68·68	77·70	88·91	..
Electricity	Total	5·79	2·30	5·91	27·20	32·57	40·22	51·67	70·87	..
	Rural	0·46	0·39	0·32	1·48	1·53	2·44	2·32	5·14	..
	Urban	5·33	1·91	5·59	25·72	31·04	37·78	49·35	65·73	..
Liquid fuel	Total	5·16	5·17	4·98	5·08	7·78	7·49	4·84	1·91	..
	Rural	4·21	4·70	3·88	1·70	2·60	2·37	2·02	0·91	..
	Urban	0·95	0·47	1·10	3·38	5·18	5·12	2·82	1·00	..
Coal, wood and bagasse	Total	N	N	N	0·01	0·03	0	0	0	..
	Rural	N	N	N	0	0	0	0	0	..
	Urban	N	N	N	0·01	0·03	0	0	0	..
Other power	Total	0	0	0	0	0	0	0	0	..
	Rural	0	0	0	0	0	0	0	0	..
	Urban	0	0	0	0	0	0	0	0	..
No power	Total	89·05	92·53	89·11	67·71	59·62	52·29	43·49	27·22	..
	Rural	58·52	67·46	52·88	15·29	13·71	26·51	17·96	5·04	..
	Urban	30·53	25·07	36·23	52·42	45·91	25·78	25·53	22·18	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					MYSORE					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	54·56	61·71	52·47	33·26	30·11	22·80	15·53	14·78	..
	Urban	45·44	38·29	47·53	66·74	69·89	77·20	84·47	85·22	..
Electricity	Total	8·05	5·54	6·49	27·55	33·42	36·46	47·49	69·95	..
	Rural	1·86	2·13	1·21	3·22	7·45	4·63	5·03	9·36	..
	Urban	6·19	3·41	5·28	24·33	25·97	31·83	42·46	60·59	..
Liquid fuel	Total	3·85	3·68	3·74	4·06	6·57	9·03	13·24	4·43	..
	Rural	2·97	3·23	2·84	2·16	3·26	3·05	3·65	0·98	..
	Urban	0·88	0·45	0·90	1·90	3·31	5·98	9·59	3·45	..
Coal, wood and bagasse	Total	0·37	0·26	0·37	0·44	1·81	1·24	0·91	1·48	..
	Rural	0·07	0·10	0·04	0·04	0·21	0·34	0	0	..
	Urban	0·30	0·16	0·33	0·40	1·60	0·90	0·91	1·48	..
Other power	Total	0·55	0·56	0·55	0·49	0·41	1·24	1·37	0·49	..
	Rural	0·48	0·53	0·48	0·26	0·20	0·34	0	0	..
	Urban	0·07	0·03	0·07	0·23	0·21	0·90	1·37	0·49	..
No power	Total	87·18	89·96	88·85	67·46	57·79	52·03	36·99	23·65	..
	Rural	49·18	55·72	47·90	27·58	18·99	14·44	6·85	4·44	..
	Urban	38·00	34·24	40·95	39·88	38·80	37·59	30·14	19·21	..
					ORISSA					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	95·04	94·11	95·91	93·62	78·40	60·32	59·46	30·19	..
	Urban	4·96	5·89	4·09	6·38	21·60	39·68	40·54	69·81	..
Electricity	Total	0·29	0·16	0·20	1·65	11·89	15·87	16·22	28·30	..
	Rural	0·04	0·03	0·03	0·13	1·94	2·78	4·06	3·77	..
	Urban	0·25	0·13	0·17	1·52	9·95	13·09	12·16	24·53	..
Liquid fuel	Total	0·52	0·68	0·35	0·73	5·37	9·53	24·32	7·55	..
	Rural	0 46	0·65	0·31	0·43	1·83	3·57	22·97	7·55	..
	Urban	0·06	0·03	0·04	0·30	3·54	5·96	1·35	0	..
Coal, wood and bagasse	Total	29·01	32·50	27·00	23·59	25·94	32·14	35·14	62·26	..
	Rural	27·43	30·22	25·90	22·66	23·20	21·83	18·92	18·87	..
	Urban	1·58	2·28	1·10	0·93	2·74	10·31	16·22	43·39	..
Other power	Total	4·84	3·98	5·40	5·29	1·03	0·40	0	0	..
	Rural	4·78	3·89	5·35	5·25	1·03	0·40	0	0	..
	Urban	0·06	0·09	0·05	0·04	0	0	0	0	..
No power	Total	65·34	62·68	67·05	68·74	55·77	42·06	24·32	1·89	..
	Rural	62·33	59·32	64·32	65·15	50·40	31·74	13·51	0	..
	Urban	3·01	3·36	2·73	3·59	5·37	10·32	10·81	1·89	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					PUNJAB					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	50·22	66·89	36·25	15·58	15·37	16·51	20·42	19·08	..
	Urban	49·78	33·11	63·75	84·42	84·63	83·49	79·58	80·92	.
Electricity	Total	14·94	3·37	20·29	47·05	64·41	67·71	69·58	91·45	
	Rural	2·99	1·09	4·52	4·89	7·23	10·36	15·41	17·11	.
	Urban	11·95	2·28	15·77	42·16	57·18	57·35	54·17	74·34	.
Liquid fuel	Total	6·31	1·84	12·17	6·44	5·81	7·59	10·42	3·29	.
	Rural	5·03	1·72	10·01	3·05	1·77	2·29	2·92	1·32	..
	Urban	1·28	0·12	2·16	3·39	4·04	5·30	7·50	1·97	.
Coal, wood and bagasse	Total	0·39	0·16	0·33	1·37	1·87	2·65	6·25	3·29	..
	Rural	0·17	0·15	0·15	0·27	0·46	0·60	0·42	0	.
	Urban	0·22	0·01	0·18	1·10	1·41	2·05	5·83	3·29	.
Other power	Total	14·17	24·64	3·41	1·51	0·51	1·09	0·83	0	.
	Rural	13·82	24·40	2·96	1·00	0·05	0·49	0	0	..
	Urban	0·35	0·24	0·45	0·51	0·46	0·60	0·83	0	..
No power	Total	64·19	69·99	63·80	43·63	27·40	20·96	12·92	1·97	..
	Rural	28·21	39·53	18·61	6·37	5·86	2·77	1·67	0·65	.
	Urban	35·98	30·46	45·19	37·26	21·54	18·19	11·25	1·32	..
					RAJASTHAN					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	
	Rural	58·96	64·91	55·24	33·72	22·39	24·23	30·26	22·83	..
	Urban	41·04	35·09	44·76	66·28	77·61	75·77	69·74	77·17	.
Electricity	Total	6·06	3·18	8·09	14·87	18·53	27·31	26·31	43·48	..
	Rural	0·44	0·31	0·54	0·72	0·37	3·08	3·95	0	..
	Urban	5·62	2·87	7·55	14·15	18·16	24·23	22·36	43·48	
Liquid fuel	Total	10·80	5·09	17·32	14·30	14·68	20·27	22·37	15·22	..
	Rural	7·97	3·98	12·96	7·37	6·42	11·02	11·84	6·32	..
	Urban	2·83	1·11	4·36	6·93	8·26	9·25	10·53	8·70	..
Coal, wood and bagasse	Total	24·42	27·30	21·27	23·83	16·88	15·86	18·42	19·57	..
	Rural	12·79	15·26	10·64	5·99	3·49	3·08	9·21	10·87	..
	Urban	11·63	12·04	10·63	17·84	13·39	12·78	9·21	8·70	..
Other power	Total	4·19	5·13	3·32	2·02	1·65	0·44	1·32	2·17	..
	Rural	2·70	3·62	1·81	0·87	0·73	0	0	1·09	..
	Urban	1·49	1·51	1·51	1·15	0·92	0·44	1·32	1·08	..
No power	Total	54·53	59·30	50·00	44·98	48·26	36·12	31·58	19·56	.
	Rural	35·06	41·74	29·29	18·77	11·38	7·05	5·26	4·35	.
	Urban	19·47	17·56	20·71	26·21	36·88	29·07	26·32	15·21	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
UTTAR PRADESH										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	65·82	73·48	58·45	54·38	46·30	43·66	55·42	25·75	..
	Urban	34·18	26·52	41·55	45·62	53·70	56·34	44·58	74·25	..
Electricity	Total	4·38	1·62	6·20	9·59	16·83	26·29	22·38	59·89	..
	Rural	1·00	0·45	1·49	1·46	3·02	3·76	3·79	12·20	..
	Urban	3·38	1·17	4·71	8·13	13·81	22·53	18·59	47·69	..
Liquid fuel	Total	5·36	2·36	9·15	4·87	8·22	14·02	6·32	11·92	..
	Rural	4·23	1·87	7·42	2·87	5·51	9·59	3·97	4·06	..
	Urban	1·13	0·49	1·73	2·00	2·71	4·43	2·35	7·86	..
Coal, wood and bagasse	Total	11·00	11·01	10·99	10·23	9·95	15·09	15·34	21·14	..
	Rural	6·49	7·60	5·49	4·13	3·53	3·15	6·68	7·59	..
	Urban	4·51	3·41	5·50	6·10	6·42	11·94	8·66	13·55	..
Other power	Total	12·66	15·67	9·37	10·37	7·31	3·42	9·39	2·17	..
	Rural	9·95	13·57	6·05	6·04	4·20	1·54	6·32	0·27	..
	Urban	2·71	2·10	3·32	4·33	3·11	1·88	3·07	1·90	..
No power	Total	66·60	69·34	64·29	64·94	57·69	41·18	46·57	4·88	..
	Rural	44·15	49·99	38·00	39·88	30·04	25·62	34·66	1·63	..
	Urban	22·45	19·35	26·29	25·06	27·65	15·56	11·91	3·25	..
WEST BENGAL										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Rural	59·02	74·10	52·23	30·02	29·35	30·31	28·00	27·03	71·04
	Urban	40·98	25·90	47·77	69·98	70·65	69·69	72·00	72·97	28·96
Electricity	Total	10·05	3·49	10·30	26·32	34·42	45·78	50·95	73·86	2·83
	Rural	0·59	0·29	0·62	0·67	1·40	3·09	4·84	9·01	0·20
	Urban	9·46	3·20	9·68	25·65	33·02	42·69	46·11	64·85	2·63
Liquid fuel	Total	4·55	5·56	5·75	1·70	2·37	5·86	10·00	13·07	2·64
	Rural	4·30	5·45	5·42	1·29	1·81	4·90	8·42	11·68	2·55
	Urban	0·25	0·11	0·33	0·41	0·56	0·96	1·58	1·39	0·09
Coal, wood and bagasse	Total	0·34	0·03	0·18	0·49	1·11	4·31	9·26	3·96	0·12
	Rural	0·15	0·01	0·04	0·13	0·43	2·54	4·95	2·48	0·07
	Urban	0·19	0·02	0·14	0·36	0·68	1·77	4·31	1·48	0·05
Other power	Total	0·23	0·07	0·25	0·64	0·73	1·29	1·37	0·69	0·05
	Rural	0·02	N	0·02	0·01	0·02	0·11	0·21	0·10	0·04
	Urban	0·21	0·07	0·23	0·63	0·71	1·18	1·16	0·59	0·01
No power	Total	84·83	90·85	83·52	70·85	61·37	42·76	28·42	8·42	94·36
	Rural	53·96	68·35	46·13	27·92	25·69	19·67	9·58	3·76	68·18
	Urban	30·87	22·50	37·39	42·93	35·68	23·09	18·84	4·66	26·18

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
ANDAMAN AND NICOBAR ISLANDS										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	57·58	66·67	88·89	14·29	45·45	50·00	25·00	0	..
	Urban	42·42	33·33	11·11	85·71	54·55	50·00	75·00	100·00	..
Electricity	Total	16·67	0	0	71·43	18·18	12·50	12·50	100·00	..
	Rural	1·52	0	0	14·29	0	0	0	0	..
	Urban	15·15	0	0	57·14	18·18	12·50	12·50	100·00	..
Liquid fuel	Total	18·18	66·67	25·93	0	9·09	0	25·00	0	..
	Rural	16·67	66·67	22·22	0	9·09	0	25·00	0	..
	Urban	1·51	0	3·71	0	0	0	0	0	..
Coal, wood and bagasse	Total	33·33	0	59·26	28·57	18·18	12·50	12·50	0	..
	Rural	22·72	0	55·56	0	0	0	0	0	..
	Urban	10·61	0	3·70	28·57	18·18	12·50	12·50	0	..
Other power	Total	0	0	0	0	0	0	0	0	..
	Rural	0	0	0	0	0	0	0	0	..
	Urban	0	0	0	0	0	0	0	0	..
No power	Total	31·82	33·33	14·81	0	54·55	75·00	50·00	0	..
	Rural	16·67	..	11·11	0	36·36	50·00	0	0	..
	Urban	15·15	33·33	3·70	0	18·19	25·00	50·00	0	..
DELHI										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	2·75	3·67	2·46	0·77	0·96	2·21	9·52	25·71	..
	Urban	97·25	96·33	97·54	99·23	99·04	97·79	90·48	74·29	..
Electricity	Total	52·21	30·51	46·24	60·28	66·31	71·88	67·62	60·57	..
	Rural	0·24	0·80	0·15	0	0·32	0	0	2·28	..
	Urban	51·97	29·71	46·09	60·28	65·99	71·88	67·62	58·29	..
Liquid fuel	Total	3·48	4·24	3·95	3·28	2·34	2·53	2·38	1·72	..
	Rural	0·80	0·92	1·27	0·26	0·32	0	0	0·57	..
	Urban	2·68	3·32	2·68	3·02	2·02	2·53	2·38	1·15	..
Coal, wood and bagasse	Total	15·88	22·13	17·51	12·53	10·10	9·64	17·14	29·14	..
	Rural	1·27	0·69	0·55	0·38	0·22	1·74	9·52	22·86	..
	Urban	14·61	21·44	16·96	12·15	9·88	7·90	7·62	6·28	..
Other power	Total	2·54	2·64	2·53	3·15	2·02	2·05	0·48	4·00	..
	Rural	0·02	0	0·02	0	0	0·16	0	0	..
	Urban	2·52	2·64	2·51	3·15	2·02	1·89	0·48	4·00	..
No power	Total	25·89	40·48	29·77	20·76	19·23	13·90	12·38	4·57	..
	Rural	0·42	1·26	0·47	0·13	0·10	0·31	0	0	..
	Urban	25·47	39·22	29·30	20·63	19·13	13·59	12·38	4·57	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
HIMACHAL PRADESH										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	95·01	95·92	88·26	84·85	51·85	40·00	33·33	12·50	..
	Urban	4·99	4·08	11·74	15·15	48·15	60·00	66·67	87·50	..
Electricity	Total	0·28	0·08	1·07	7·07	25·93	70·00	66·67	100·00	..
	Rural	0·14	0·05	0·52	2·02	7·41	35·00	33·33	12·50	..
	Urban	0·14	0·03	0·55	5·05	18·52	35·00	33·34	87·50	..
Liquid fuel	Total	0·09	0·05	0·30	5·05	3·70	0	0	0	..
	Rural	0·08	0·05	0·25	5·05	3·70	0	0	0	..
	Urban	0·01	0	0·05	0	0	0	0	0	..
Coal, wood and bagasse	Total	N	0	0	1·01	0	0	0	0	..
	Rural	N	0	0	1·01	0	0	0	0	..
	Urban	0	0	0	0	0	0	0	0	..
Other power	Total	45·01	49·67	6·73	15·15	0	0	0	0	..
	Rural	44·62	49·29	6·26	15·15	0	0	0	0	..
	Urban	0·39	0·38	0·47	0	0	0	0	0	..
No power	Total	54·62	50·20	91·90	71·72	70·37	30·00	33·33	0	..
	Rural	50·17	46·53	81·23	61·62	40·74	5·00	0	0	..
	Urban	4·45	3·67	10·67	10·10	29·63	25·00	33·33	0	..
LACCADIVE, MINICOY AND AMINDIVI ISLANDS										
Total	Total	100·00	100·00	100·00	..	..	..	..	..	..
	Rural	100·00	100·00	100·00	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
Electricity	Total	0	0	0	..	..	..	..	..	..
	Rural	0	0	0	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
Liquid fuel	Total	0	0	0	..	..	..	..	..	..
	Rural	0	0	0	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
Coal, wood and bagasse	Total	0	0	0	..	..	..	..	..	..
	Rural	0	0	0	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
Other power	Total	0	0	0	..	..	..	..	..	..
	Rural	0	0	0	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
No power	Total	100·00	100·00	100·00	..	..	..	..	..	..
	Rural	100·00	100·00	100·00	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					MANIPUR					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	79·68	74·97	97·01	75·90	66·10	36·84	80·00	100·00	..
	Urban	20·32	25·03	2·99	24·10	33·90	63·16	20·00	0	..
Electricity	Total	0·29	0	0·41	3·59	13·56	57·90	20·00	0	..
	Rural	N	0	0	0	0	0	0	0	..
	Urban	0·29	0	0·41	3·59	13·56	57·90	20·00	0	..
Liquid fuel	Total	0·09	0	0·17	3·59	0	0	0	0	..
	Rural	0·06	0	0·03	3·59	0	0	0	0	..
	Urban	0·03	0	0·14	0	0	0	0	0	..
Coal, wood and bagasse	Total	2·05	0·94	4·40	19·49	16·95	5·26	20·00	100·00	..
	Rural	1·47	0·87	2·82	11·28	3·39	5·26	20·00	100·00	..
	Urban	0·58	0·07	1·58	8·21	13·56	0	0	0	..
Other power	Total	0·16	0·06	0·45	1·54	0	0	0	0	..
	Rural	0·15	0·06	0·38	1·54	0	0	0	0	..
	Urban	0·01	0	0·07	0	0	0	0	0	..
No power	Total	97·41	99·00	94·57	71·79	69·49	36·84	60·00	0	..
	Rural	78·00	74·04	93·78	59·49	62·71	31·58	60·00	0	..
	Urban	19·41	24·96	0·79	12·30	6·78	5·26	0	0	..
					TRIPURA					
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
	Rural	59·32	58·11	58·75	63·11	58·73	76·67	88·89	100·00	..
	Urban	40·68	41·89	41·25	36·89	41·27	23·33	11·11	0	..
Electricity	Total	2·94	1·59	2·84	11·65	7·94	6·67	5·55	0	..
	Rural	0·15	0	0·11	1·94	0	0	0	0	..
	Urban	2·79	1·59	2·73	9·71	7·94	6·67	5·55	0	..
Liquid fuel	Total	7·99	4·98	6·78	4·85	31·74	50·00	77·78	50·00	..
	Rural	6·55	4·13	5·03	2·91	25·39	50·00	77·78	50·00	..
	Urban	1·44	0·85	1·75	1·94	6·35	0	0	0	..
Coal, wood and bagasse	Total	27·35	29·38	28·12	18·45	12·70	20·00	0	16·67	..
	Rural	15·94	18·35	14·77	14·57	6·35	10·00	0	16·67	..
	Urban	11·41	11·03	13·35	3·88	6·35	10·00	0	0	..
Other power	Total	7·22	3·92	11·71	5·83	0	0	0	0	..
	Rural	7·22	3·92	11·71	5·83	0	0	0	0	..
	Urban	0	0	0	0	0	0	0	0	..
No power	Total	54·50	60·13	50·55	59·22	47·62	23·33	16·67	33·33	..
	Rural	29·46	31·71	27·13	37·86	26·99	16·67	11·11	33·33	..
	Urban	25·04	28·42	23·42	21·36	20·63	6·66	5·56	0	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
DADRA AND NAGAR HAVELI										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	..	..	..
	Rural	100·00	100·00	100·00	100·00	100·00	100·00	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
Electricity	Total	0	0	0	0	0	0	..	..	..
	Rural	0	0	0	0	0	0	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
Liquid fuel	Total	1·81	0·63	5·28	0	100·00	100·00	..	..	..
	Rural	1·81	0·63	5·28	0	100·00	100·00	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
Coal, wood and bagasse	Total	0	0	0	0	0	0	..	..	..
	Rural	0	0	0	0	0	0	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
Other power	Total	0·25	0·10	0·41	25·00	0	0	..	..	..
	Rural	0·25	0·10	0·41	25·00	0	0	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
No power	Total	97·94	99·27	94·31	75·00	0	0	..	..	..
	Rural	97·94	99·27	94·31	75·00	0	0	..	..	..
	Urban	0	0	0	0	0	0	..	..	..
NORTH-EAST FRONTIER AGENCY										
Total	Total	100·00	..	100·00	100·00	100·00	..	..	100·00	..
	Rural	100·00	..	100·00	100·00	100·00	..	..	100·00	..
	Urban	0	..	0	0	0	..	..	0	..
Electricity	Total	0	..	0	0	0	..	..	0	..
	Rural	0	..	0	0	0	..	..	0	..
	Urban	0	..	0	0	0	..	..	0	..
Liquid fuel	Total	12·50	..	25·00	0	0	..	..	100·00	..
	Rural	12·50	..	25·00	0	0	..	..	100·00	..
	Urban	0	..	0	0	0	..	..	0	..
Coal, wood and bagasse	Total	6·25	..	25·00	0	0	..	..	0	..
	Rural	6·25	..	25·00	0	0	..	..	0	..
	Urban	0	..	0	0	0	..	..	0	..
Other power	Total	81·25	..	50·00	100·00	100·00	..	..	0	..
	Rural	81·25	..	50·00	100·00	100·00	..	..	0	..
	Urban	0	..	0	0	0	..	..	0	..
No power	Total	0	..	0	0	0	..	..	0	..
	Rural	0	..	0	0	0	..	..	0	..
	Urban	0	..	0	0	0	..	..	0	..

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—contd.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
NAGALAND										
Total	Total	100·00	100·00	100·00	..	..	..	100·00	..	..
	Rural	50·98	76·19	30·77	..	..	..	100·00	..	..
	Urban	49·02	23·81	69·23	..	..	..	0	..	..
Electricity	Total	0	0	0	..	..	..	..	..	..
	Rural	0	0	0	..	..	..	..	..	..
	Urban	0	0	0	..	..	..	..	..	..
Liquid fuel	Total	5·88	0	7·69	..	..	..	50·00	..	..
	Rural	1·96	0	0	..	..	..	50·00	..	..
	Urban	3·92	0	7·69	..	..	..	0	..	..
Coal, wood and bagasse	Total	41·18	38·10	46·16	..	..	..	50·00	..	..
	Rural	13·73	23·81	3·85	..	..	..	50·00	..	..
	Urban	27·45	14·29	42·31	..	..	..	0	..	..
Other power	Total	0	0	0	..	..	..	0	..	..
	Rural	0	0	0	..	..	..	0	..	..
	Urban	0	0	0	..	..	..	0	..	..
No power	Total	52·94	61·90	46·15	..	..	..	0	..	..
	Rural	35·29	52·38	26·92	..	..	..	0	..	..
	Urban	17·65	9·52	19·23	..	..	..	0	..	..
PONDICHERRY										
Total	Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
	Rural	54·41	55·00	53·66	46·87	37·74	33·33	50·00	62·50	60·68
	Urban	45·59	45·00	46·34	53·13	62·26	66·67	50·00	37·50	39·32
Electricity	Total	8·69	1·36	8·25	16·67	35·85	55·55	50·00	87·50	2·67
	Rural	3·40	0·45	3·93	5·21	13·21	11·11	12·50	50·00	0·73
	Urban	5·29	0·91	4·32	11·46	22·64	44·44	37·50	37·50	1·94
Liquid fuel	Total	3·02	0·46	4·06	8·33	1·89	7·41	12·50	0	0·97
	Rural	2·64	0·46	3·66	7·29	0	7·41	0	0	0·97
	Urban	0·38	0	0·40	1·04	1·89	0	12·50	0	0
Coal, wood and bagasse	Total	3·84	6·36	5·23	3·13	5·66	0	0	0	0·24
	Rural	1·70	2·27	2·88	0	0	0	0	0	0
	Urban	2·14	4·09	2·35	3·13	5·66	0	0	0	0·24
Other power	Total	0·38	0	0·52	0	3·77	0	0	0	0
	Rural	0·07	0	0·13	0	0	0	0	0	0
	Urban	0·31	0	0·39	0	3·77	0	0	0	0
No power	Total	84·07	91·82	81·94	71·87	52·83	37·04	37·50	12·50	96·12
	Rural	46·60	51·82	43·06	34·37	24·53	14·81	37·50	12·50	58·98
	Urban	37·47	40·00	38·88	37·50	28·30	22·23	0	0	37·14

TABLE IV. 9

Percentage distribution of all industrial establishments by type of power used, total, rural and urban—concld.

Type of fuel or power used	Total Rural Urban	Size of employment								
		Total	1	2-5	6-9	10-19	20-49	50-99	100+	Not stated
1	2	3	4	5	6	7	8	9	10	11
					SIKKIM					
Total	Total	100·00	100·00	100·00	100·00	100·00	..	..	100·00	..
	Rural	86·07	86·27	52·00	84·62	75·00	..	..	92·05	..
	Urban	13·93	13·73	48·00	15·38	25·00	..	..	7·95	..
Electricity	Total	0·82	0	4·00	0	25·00	..	..	0	..
	Rural	0	0	0	0	0	..	..	0	..
	Urban	0·82	0	4·00	0	25·00	..	..	0	..
Liquid fuel	Total	0·41	0	0	7·69	0	..	..	0	..
	Rural	0·41	0	0	7·69	0	..	..	0	..
	Urban	0	0	0	0	0	..	..	0	..
Coal, wood and bagasse	Total	0·82	0	4·00	0	0	..	..	0·66	..
	Rural	0·82	0	4·00	0	0	..	..	0·66	..
	Urban	0	0	0	0	0	..	..	0	..
Other power	Total	0	0	0	0	0	..	..	0	..
	Rural	0	0	0	0	0	..	..	0	..
	Urban	0	0	0	0	0	..	..	0	..
No power	Total	97·95	100·00	92·00	92·31	75·00	..	..	99·34	..
	Rural	84·84	86·27	48·00	76·93	75·00	..	..	91·39	..
	Urban	13·11	13·73	44·00	15·38	0	..	..	7·95	..

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

B. The States and Union Territories

Andhra Pradesh

The Census Superintendent of Andhra Pradesh fears that the housing census may have under-enumerated many types of household industry. He bases his conclusion on two grounds. Firstly, in several types of household industry,—handloom to take but one and major example—the number of units according to administrative statistics is much larger than the number returned in the housing census. In handlooms, however, the present writer feels that the administrative statistics themselves may have suffered from inflation in the past owing to the fact that the supply of yarn in the early fiftees was made dependent on the number of looms licensed. The licence fee itself having been either nominal or nil, there might have been a desire to inflate the number of looms in use in order to ensure a higher prorata quota of yarn in times of acute shortage. Secondly, as in several other States, the period of the housing census coincided with the busy agricultural season and the lay-off season for certain types of industry, as a result of which the number of persons engaged in the latter were returned as much smaller than in the main census. This general fact has to be borne in mind in considering the statistics of establishments in Andhra Pradesh. We shall have occasion to return to this point.

The following statement shows the distribution of workshops and factories in Andhra Pradesh by range of employment, rural and urban and by type of power used :

Distribution of workshops and factories in Andhra Pradesh by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	150,596	95,983	47,109	3,786	1,912	1,315	314	177
Rural	114,883	81,910	30,110	1,459	662	619	88	35
Urban	35,713	14,073	16,999	2,327	1,250	696	226	142
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	76·29	85·34	63·92	38·54	34·62	47·07	28·03	19·77
Urban	23·71	14·66	36·08	61·46	65·38	52·93	71·97	80·23
Total	100·00	63·74	31·28	2·51	1·27	0·87	0·21	0·12
Rural	100·00	71·30	26·21	1·27	0·57	0·54	0·08	0·03
Urban	100·00	39·40	47·60	6·52	3·50	1·95	0·63	0·40

Type of fuel or power used	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	150,596	95,983	47,109	3,786	1,912	1,315	314	177	..
Electricity ..	5,156	565	2,604	721	617	441	109	99	..
Liquid fuel ..	3,397	470	2,079	392	271	162	21	2	..
Coal, wood and bagasse ..	142	30	60	14	18	16	4	..	..
Other power ..	1,233	317	584	160	101	56	15	..	..
No power ..	140,668	94,601	41,782	2,499	905	640	165	76	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	..
Electricity ..	3·42	0·59	5·53	19·04	32·27	33·53	34·71	55·93	..
Liquid fuel ..	2·26	0·49	4·41	10·35	14·18	12·32	6·69	1·13	..
Coal, wood and bagasse ..	0·09	0·03	0·13	0·37	0·94	1·22	1·27	..	..
Other power ..	0·82	0·33	1·24	4·23	5·28	4·26	4·78	..	..
No power ..	93·41	98·56	88·69	66·01	47·33	48·67	52·55	42·94	..
Total	100·00	63·74	31·28	2·51	1·27	0·87	0·21	0·12	..
Electricity ..	100·00	10·96	50·51	13·98	11·97	8·55	2·11	1·92	..
Liquid fuel ..	100·00	13·83	61·20	11·54	7·98	4·77	0·62	0·06	..
Coal, wood and bagasse ..	100·00	21·13	42·25	9·86	12·67	11·27	2·82	..	..
Other power ..	100·00	25·71	47·36	12·98	8·19	4·54	1·22	..	..
No power ..	100·00	67·25	29·70	1·78	0·64	0·46	0·12	0·05	..

Distribution of workshops and factories in Andhra Pradesh by size of employment, rural and urban or by type of fuel and power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	150,596	5,156	3,397	142	1,233	140,668
Rural	114,883	1,217	2,923	75	900	109,768
Urban	35,713	3,939	474	67	333	30,900
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	76·29	23·60	86·05	52·82	72·99	78·03
Urban	23·71	76·40	13·95	47·18	27·01	21·97
Total	100·00	3·42	2·26	0·09	0·82	93·41
Rural	100·00	1·06	2·54	0·07	0·78	95·55
Urban	100·00	11·03	1·33	0·19	0·93	86·52

For a State, the size, population, and range of cultural and industrial activity as that of Andhra Pradesh, a total of 150,596 establishments seems to look one too few. Of these 150,596 workshops and factories 76·3 per cent are in rural areas and 23·7 in urban centres. While the great bulk of the single-person (85 per cent) and 2-5 person (64 per cent) units are in rural areas, those employing 6-9, 10-19, 20-49, 50-99 and 100+ are conspicuously more both in numbers and proportion in urban areas than in rural areas. Thus the proportion of units employing more than 5 persons rises from 61 per cent in the 6-9 range to as much as 80 per cent in urban areas. The only employment range in which the rural and urban ratios are closest to each other is 20-49 persons.

In the rural areas, the single-person workshop is by far and away the predominant type statistically, accounting for 81,910 units or just above 54 per cent of all units and 71 per cent of all rural units in the State. Workshops employing 2-5 persons again are quite numerous in rural areas, accounting for one-fifth of all units in the State and more than a quarter (26 per cent) of all rural workshops and factories. In rural areas there is a sudden headlong drop in proportion to units employing 6-9 persons (1·27 per cent), 10-19 persons (0·57) and so on to a ratio of 0·03 per cent in 100+. There are only 35 factories in rural Andhra Pradesh employing 100 persons or more.

In the urban areas the predominant type is the 2-5 person workshop, which amounts to 48 per cent of all urban units. The single-person unit accounts for 39 per cent. The descent to units employing more than 5 persons is steep but nothing like what one finds in rural areas. The urban proportions as well as the absolute numbers are very much higher than the rural ones, except in the employment range of 20-49 where the number of rural units is 619 against 696 in urban areas.

In the use of power, the overwhelming majority of the establishments (93·4 per cent) use no power at all. Only 5,156 units or 3·42 per cent use electricity. A much lesser proportion (2·26 per cent) uses liquid fuel. A very small proportion (0·09) uses solid fuel. About 0·8 per cent use 'other power'. A striking feature of Andhra Pradesh is the high proportion of establishments using no power in all ranges of employment. It is as high as 98·56 and 88·69 per cent in the single-person and 2-5 person ranges respectively. It steadily drops thereafter from 66 per cent in 6-9 to around 48 per cent in 10-49, but rises a little (52·55 per cent) in 50-99 and drops to the lowest, but in itself quite high, proportion of 42·94 per cent in 100+. The use of electricity however rises steadily from 0·59 per cent in single person units to as much as 56 per cent in establishments employing 100+. By contrast liquid fuel rises more slowly from 0·49 per cent in 1-person units to 14·18 per cent in 10-19 persons units and then tapers off to 12·32 per cent in 20-49, 6·69 per cent in 50-99 and 1·13 per cent in 100+. This shows that in the employment ranges beyond 19 electricity and liquid fuel become competitive and electricity takes over in some proportion from liquid fuel. Solid fuel maintains a low but slowly rising ratio from 0·03 per cent in 1-person to 1·27 per cent in 50-99 where it ends. Other power is low (0·33 per cent) in 1-person but rises steadily up to 10-19 (5·28 per cent) after which it falls to a plateau and ends abrupt beyond 50-99.

Within each kind of power again, the proportion using any kind of power, as opposed to no-power, is highest in the 2-5 person range for either electricity, liquid fuel, solid fuel or other power. Except for the 2-5 person range where electricity is found in 51 per cent of all units using this power, the percentage varies between 9 and 14 in units employing up to 49 persons. Thereafter it drops down to 2·11 per cent in 50-99 and 1·92 in 100+. The absolute numbers of units in these two employment ranges are 109 and 99 respectively. A similar but accentuated pattern obtains for liquid fuel, where the extent of use in the 2-5 person class is as high as 61 per cent but steadily diminishes, excepting for the 2-5 group, from 14 per cent in 1-person to 4·77 per cent in 20-99, after which there is a steep drop to 0·62 per cent (21 units) and 0·06 per cent (2 units). Solid fuel again is most in evidence in the 2-5 person range. But in the 6-9 person range it drops to 9·86 per cent to rise again to 12·67 per cent in 10-19 and 11·27 per cent in 20-49. No solid fuel is used in the 100+ range. Other power shows a pattern very similar to liquid fuel's, with a marked downward slope with rising employment ranges except for a hump in the 2-5 range. No power has the highest proportion (67 per cent) in 1-person units, and the second highest in 2-5 person units, whereafter it drops rather steeply, although as noticed above, the numbers of units employing no power are quite high in 50-99 and 100+ (165 and 76 respectively).

The use of electricity is very low in rural establishments. It is used in 1·06 per cent of all rural establishments whereas 95·55 of all rural units use no power. Liquid fuel is used in more than double the number of rural units using electricity, the proportion of rural establishments using liquid fuel being 2·54 per cent. Solid fuel is used the least (0·07 per cent) in rural units, while other power used is quite low (0·78 per cent). In urban areas, however, the use of electricity is much more extensive, being used in no less than 11 per cent of all urban units (3,939 units out of 35,713). Even in urban areas, no power is the most dominant group (86·52 per cent), liquid fuel is used in 1·33 per cent of all urban units, and solid fuel in 0·19 per cent. Of every 100 workshops and factories using electricity less than a fourth (23·6 per cent) are in rural areas. By contrast out of every 100 units using liquid fuel 86 per cent are in rural areas. Of every 100 units using solid fuel 53 are in rural areas. Of every 100 units using 'other power' 73 are in rural areas. Of every 100 units using 'no power' 78 are in rural areas.

Assam.

The following abstract gives a brief review of the workshops and factories enumerated in the Housing Census of 1960.

Distribution of workshops and factories in Assam by size of employment, rural and urban and by type of fuel or power used

Total Rural-Urban	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	11,023	1,687	3,099	582	405	362	253	307	4,328
Rural	7,100	1,274	1,769	258	180	239	219	271	2,890
Urban	3,923	413	1,330	324	225	123	34	36	1,438
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	64·41	75·52	57·08	44·33	44·44	66·02	86·56	88·27	66·77
Urban	35·59	24·48	42·92	55·67	55·56	33·98	13·44	11·73	33·23
Total	100·00	15·31	28·11	5·28	3·67	3·28	2·30	2·79	39·26
Rural	100·00	17·94	24·92	3·63	2·54	3·37	3·08	3·82	40·70
Urban	100·00	10·53	33·90	8·26	5·73	3·13	0·87	0·92	36·66

Type of fuel or power used	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	11,023	1,687	3,099	582	405	362	253	307	4,328
Electricity	474	24	176	88	68	59	29	30	..
Liquid fuel	1,319	179	512	141	126	138	95	128	..
Coal, wood and bagasse	2,400	743	1,038	145	97	120	118	139	..
Other power	50	11	19	7	7	3	2	1	..
No power	6,780	730	1,354	201	107	42	9	9	4,328
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	4·30	1·42	5·68	15·12	16·79	16·30	11·46	9·77	..
Liquid fuel	11·97	10·61	16·52	24·23	31·11	38·12	37·55	41·69	..
Coal, wood and bagasse	21·77	44·05	33·50	24·91	23·95	33·15	46·64	45·28	..
Other power	0·45	0·66	0·61	1·20	1·73	0·83	0·79	0·33	..
No power	61·51	43·27	43·69	34·54	26·42	11·60	3·56	2·93	100·00
Total	100·00	15·31	28·11	5·28	3·67	3·28	2·30	2·79	39·26
Electricity	100·00	5·06	37·13	18·56	14·35	12·45	6·12	6·33	..
Liquid fuel	100·00	13·57	38·82	10·69	9·55	10·46	7·20	9·71	..
Coal, wood and bagasse	100·00	30·96	43·25	6·04	4·04	5·00	4·92	5·79	..
Other power	100·00	22·00	38·00	14·00	14·00	6·00	4·00	2·00	..
No power	100·00	10·77	19·97	2·96	1·58	0·62	0·13	0·13	63·84

Distribution of workshops and factories in Assam by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	11,023	474	1,319	2,400	50	6,780
Rural	7,100	107	983	1,763	23	4,224
Urban	3,923	367	336	637	27	2,556
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	64·41	22·57	74·53	73·46	46·00	62·30
Urban	35·59	77·43	25·47	26·54	54·00	37·70
Total	100·00	4·30	11·97	21·77	0·45	61·51
Rural	100·00	1·51	13·85	24·83	0·32	59·49
Urban	100·00	9·36	8·56	16·24	0·69	65·15

It is unfortunate that as many as 4,328 workshops and factories out of a total of 11,023 or 39·26 per cent of all units in Assam escaped being recorded either for number of persons employed or the kind of power or fuel used. Out of this total of 4,328 units which escaped being recorded for details, 67 per cent were in rural areas and 33 per cent in urban areas. Moreover, all these units were arbitrarily put under 'no power' and constituted about 64 per cent of all units which were classified under 'no power'.

39·26 per cent of all units having thus been put out of reckoning one wonders whether the distribution of the remaining three-fifths of all establishments is representative. Be that as it may, the following brief comments are limited to the units for which data are available.

Of the 6,695 units for which details are available 62·9 per cent are in rural areas and 37 per cent in urban areas. In contrast to the picture obtaining in some other States, a large proportion of establishments employing over 20 persons are situated in rural areas, among which are rice and oil mills, tea factories, petroleum workshops, jute baling factories. Both in rural and urban areas the 2-5 persons unit is dominant. In rural areas this type constitutes 25 per cent against 18 per cent in the single-worker type. In urban areas it constitutes 34 per cent against 10·5 per cent in the single worker unit. There are appreciable numbers and proportions in the employment ranges of 6-9, 10-19, 20-49 and 100 and over. It is only in the 50-99 range in urban areas that the total figure and proportion look rather small.

Another striking feature of Assam is the extensive use of solid fuel which permeates all sizes of establishments. Solid fuel is used in 22 per cent of all establishments. Liquid fuel, mainly diesel and kerosene, comes next and accounts for 12 per cent of all units. The use of liquid fuel steadily rises in proportion from 10·6 per cent in single-person establishments to 41·7 per cent in 100+ workshops, whereas the use of solid fuel fluctuates in proportion from one grade to another between the ranges 23·95 and 46·64 per cent. Electricity is used in 4·3 per cent of all units. It is lower in single-person units and highest in 10-19 person establishments. The use of no power is high in units employing up to 5 persons but declines gradually up to the 20-49 range and rapidly thereafter.

Taking all ranges in each category of power as 100, the use of electricity reaches the highest proportion in 2-5 person units and thereafter declines with the absolute number of units themselves in succession employment ranges. This pattern is repeated in respect of each kind of fuel, which indicates that the use of power fairly permeates all ranges of employment. Here again we find that the pre-eminent position is held by solid fuel, presumably on account of the availability of coal, charcoal, and wood in Assam.

Bihar

The following statement gives the distribution of workshops and factories by size of employment, rural and urban and power used :

Distribution of workshops and factories in Bihar by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	240,768	132,049	99,663	4,964	2,489	1,124	251	228
Rural	*199,854*	*116,983*	*77,461*	*3,071*	*1,384*	*686*	*158*	*111*
Urban	40,914	15,066	22,202	1,893	1,105	438	93	117
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	83·01	88·59	77·72	61·87	55·60	61·03	62·95	48·68
Urban	16·99	11·41	22·28	38·13	44·40	38·97	37·05	51·32
Total	100·00	54·85	41·39	2·06	1·03	0·47	0·10	0·10
Rural	100·00	58·53	38·76	1·54	0·69	0·34	0·08	0·06
Urban	100·00	36·82	54·26	4·63	2·70	1·07	0·23	0·29

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	240,768	132,049	99,663	4,964	2,489	1,124	251	228
Electricity ..	6,310	1,555	3,598	447	312	212	66	120
Liquid fuel ..	3,443	740	2,347	116	94	73	38	35
Coal, wood and bagasse ..	62,745	32,856	26,543	1,646	1,047	553	80	20
Other power ..	31,299	15,022	15,786	373	77	30	9	2
No power ..	136,971	81,876	51,389	2,382	959	256	58	51
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity ..	2·62	1·18	3·61	9·00	12·54	18·86	26·29	52·63
Liquid fuel ..	1·43	0·56	2·36	2·34	3·78	6·49	15·14	15·35
Coal, wood and bagasse ..	26·06	24·88	26·63	33·16	42·06	49·20	31·87	8·77
Other power ..	13·00	11·38	15·84	7·51	3·09	2·67	3·59	0·88
No power ..	56·89	62·00	51·56	47·99	38·53	22·78	23·11	22·37
Total	100·00	54·85	41·39	2·06	1·03	0·47	0·10	0·10
Electricity ..	100·00	24·64	57·02	7·08	4·95	3·36	1·05	1·90
Liquid fuel ..	100·00	21·49	68·17	3·37	2·73	2·12	1·10	1·02
Coal, wood and bagasse ..	100·00	52·37	42·30	2·62	1·67	0·88	0·13	0·03
Other power ..	100·00	47·99	50·44	1·19	0·25	0·09	0·03	0·01
No power ..	100·00	59·77	37·52	1·74	0·70	0·19	0·04	0·04

Distribution of workshops and factories in Bihar by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	240,768	6,310	3,443	62,745	31,299	136,971
Rural	199,854	2,386	2,692	46,764	29,537	118,475
Urban	40,914	3,924	751	15,981	1,762	18,496
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	83·01	37·81	78·19	74·53	94·37	86·50
Urban	16·99	62·19	21·81	25·47	5·63	13·50
Total	100·00	2·62	1·43	26·06	13·00	56·89
Rural	100·00	1·19	1·35	23·40	14·78	59·28
Urban	100·00	9·59	1·83	39·06	4·31	45·21

The bulk of workshops and factories in Bihar are located in rural areas (83 per cent). The rural proportion dominates in all employment sizes, except the highest (100+). The single person establishment which forms a little less than half the number of units for the whole State, constitutes 58·5 per cent of all rural workshops and factories. In urban areas however the largest single ratio is enjoyed by the 2-5 persons category (54·3 per cent). The unorganised sector thus dominates the urban as well as the rural scene. In workshops employing 2-5 persons, however, the predominance of the unorganised sector is mitigated to a certain extent by the use of electricity in 3·6 per cent of workshops and of liquid fuel in 2·4 per cent of all units. The upper employment brackets which are more in the organised sector decline sharply in numbers and proportion at the 6-9 persons bracket and again at the 50+ brackets. As observed before it is only the 100+ factories which are more numerous in urban than rural areas in Bihar.

Solid fuel is much in evidence in both urban and rural areas, but more so in urban workshops. Electricity claims a very low proportion of total workshops in rural areas (1·2 per cent out of a total of 199,854 units, while the urban percentage is 9·6 out of a total of 40,914. The general impression however prevails that electricity is gaining ground quite fast in the field of rural industries.

Gujarat

The following statement gives the distribution of workshops and factories in Gujarat by size of employment and by type of fuel or power used:

Distribution of workshops and factories in Gujarat by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	80,133	34,038	38,068	4,308	2,230	999	206	284
Rural	34,447	18,458	14,321	707	567	279	67	48
Urban	45,686	15,580	23,747	3,601	1,663	720	139	236
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	42·99	54·23	37·62	16·41	25·43	27·93	32·52	16·90
Urban	57·01	45·77	62·38	83·59	74·57	72·07	67·48	83·10
Total	100·00	42·48	47·50	5·38	2·78	1·25	0·26	0·35
Rural	100·00	53·58	41·57	2·05	1·65	0·81	0·20	0·14
Urban	100·00	34·10	51·98	7·88	3·64	1·58	0·30	0·52

Distribution of workshops and factories in Gujarat, by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	80,133	34,038	38,068	4,308	2,230	999	206	284
Electricity	13,559	2,139	6,961	2,545	1,074	512	126	202
Liquid fuel	5,969	2,052	3,246	280	189	147	30	25
Coal, wood and bagasse	6,492	2,453	3,489	244	175	70	17	44
Other power	167	121	40	5	..	1	..	..
No power	53,946	27,273	24,332	1,234	792	269	33	13
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	16·92	6·28	18·29	59·08	48·16	51·25	61·17	71·13
Liquid fuel	7·45	6·03	8·53	6·50	8·47	14·71	14·56	8·80
Coal, wood and bagasse	8·10	7·21	9·16	5·66	7·85	7·01	8·25	15·49
Other power	0·21	0·36	0·10	0·12	..	0·10	..	..
No power	67·32	80·12	63·92	28·64	35·52	26·93	16·02	4·58
Total	100·00	42·48	47·50	5·38	2·78	1·25	0·26	0·35
Electricity	100·00	15·77	51·34	18·77	7·92	3·78	0·93	1·49
Liquid fuel	100·00	34·38	54·38	4·69	3·17	2·46	0·50	0·42
Coal, wood and bagasse	100·00	37·78	53·74	3·76	2·70	1·08	0·26	0·68
Other power	100·00	72·46	23·95	2·99	..	0·60	..	..
No power	100·00	50·56	45·10	2·29	1·47	0·50	0·06	0·02

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	80,133	13,559	5,969	6,492	167	53,946
Rural	34,447	1,248	4,687	3,039	82	25,391
Urban	45,686	12,311	1,282	3,453	85	28,555
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	42·99	9·20	78·52	46·81	49·10	47·07
Urban	57·01	90·80	21·48	53·19	50·90	52·93
Total	100·00	16·92	7·45	8·10	0·21	67·32
Rural	100·00	3·62	13·61	8·82	0·24	73·71
Urban	100·00	26·95	2·81	7·56	0·18	62·50

43 per cent of all workshops and factories are in rural areas and 57 per cent in urban areas. The only employment range that is predominant in the rural areas is the single person workshop, 54 per cent of all units employing one person being in rural areas. Workshops employing 2-5 persons and more occur in overwhelming proportions in urban areas, the rural proportion oscillating from 37·62 per cent in 2-5 to 16·41 per cent in 6-9, after which it has an upward swing to 25·43 per cent in 10-19, 27·93 per cent in 20-49, and 32·52 per cent in 50-99. The rural proportion dwindles to 17 per cent in workshops and factories employing 100 or more persons.

In the rural area itself the proportion of workshops is highest in the single person range (53·58 per cent), declines to 41·57 per cent in the 2-5 persons range, and drops sharply and steeply thereafter to 2·05 in the 6-9 person range, after which it diminishes progressively to only 0·14 in the 100+ range. In the urban area the proportion of workshops is highest in the 2-5 person range (51·98 per cent), being much lower in the 1-person range (34·10 per cent). The proportion drops sharply to 7·88 per cent in the 6-9 person range, to 3·64 per cent in the range 10-19, and to 1·58 per cent in the range 20-49. It is lowest, being 0·30 per cent in 50-99 but rises appreciably to 0·52 per cent in 100+ range.

The use of electricity is extensive in all ranges of employment. It is used in as high as 17 per cent of all workshops and factories, surpassing all other types of power taken together. It is quite considerable in the 1-person range, where it is used in 6·28 per cent of all workshops employing one person. But the proportion of single person workshops using liquid fuel is 6·03 per cent and that using solid fuel 7·21 per cent. Thereafter the proportion using electricity rises steeply to 18·29 per cent in the 2-5 person range, 59·08 per cent in the 6-9 range, 48·16 per cent in the 10-19 range, 51·25 per cent in the 20-49 range, 61·17 per cent in the 50-99 range and 71 per cent in the 100+ range.

The use of liquid fuel is, on the other hand, restricted to a fairly even but low proportion in all employment ranges, undulating between 6·03 per cent in the 1-person range to 8·80 in the 100+ range with two consecutive high ratios of 14·71 and 14·56 per cent in 20-49 and 50-99. The over all average is 7·45 per cent of all workshops and factories.

Solid fuel follows a still more uncertain pattern than liquid fuel. The over all proportion is 8·10 per cent of all workshops and factories. Solid fuel is used only in 7·21 per cent and 5·66 per cent of all workshops in the 1-person and 6-9 person ranges respectively. It is as high as 9·16 per cent in the 2-5 person range but declines to 5·66 per cent in the 6-9 person range. It rises to 7·85 per cent in the 10-19 range, 7·01 in 20-49 and 8·25 per cent in the 50-99 person range and rather sharply to 15·49 per cent in the 100+ range. No power is most extensively used in the 1-person workshop (80·12 per cent) and also in the 2-5 person workshops (63·92 per cent). Thereafter it declines by slow and intermittent degrees to 16·02 per cent in 50-99 but sharply to 4·58 per cent in 100+.

Again, among all workshops and factories using electricity, the largest single proportion (51·34 per cent) is in the 2-5 person category, followed by 18·77 per cent in the 6-9 category. The 1-person workshop accounts for 15·77 per cent. The proportion for electricity in each of the higher employment ranges is substantially higher than for either liquid or solid fuel. Both liquid and solid fuel have the highest proportions in 2-5 person range (54·38 and 53·74 per cent respectively), their proportion in the 1 person range being close too (34·38 and 37·78 per cent respectively). These proportions drop to 4·69 per cent for liquid fuel and 3·76 per cent for solid fuel against 18·77 per cent for electricity in the 6-9 person range. Other power

and no power have the highest proportion of adherents in the 1-person range (72·46 per cent and 50·56 per cent), followed by 23·95 and 45·10 per cent in the 2-5 person range respectively. The proportions claimed by other power and no power in the range 6-9 and 2·99 and 2·29 respectively but quite small thereafter.

Nevertheless electricity is overwhelmingly restricted to urban areas, for only 9·20 per cent of all workshops and factories using electricity are in rural areas and only 3·62 per cent of all rural units use electricity as power. 78·52 per cent of all units using liquid fuel are in rural areas, but it is interesting to note that proportionately more units working on solid fuel (53·19 per cent), other power (50·90 per cent) and no power (52·93 per cent) are in urban than in rural areas.

Among all units in rural areas as many as 73·71 per cent work on no power. The proportion working on liquid fuel in rural areas is 13·61, that on solid fuel 8·82. Even in urban areas the highest proportion (62·50 per cent) of workshops and factories work on no power, that working on electricity occupying the second place with 26·95 per cent. Liquid fuel is not much favoured in urban areas; the proportion being only 2·81 per cent but the proportion of solid fuel in urban areas is substantial at 7·56 per cent.

Jammu and Kashmir

The following statement gives the distribution of industrial establishment classified by size of employment and type of fuel used in rural and urban areas :

Distribution of workshops and factories in Jammu and Kashmir by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	41,889	32,093	8,350	869	351	146	50	30
Rural	34,740	29,102	4,909	475	153	65	24	12
Urban	7,149	2,991	3,441	394	198	81	26	18
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	82·93	90·68	58·79	54·66	43·59	44·52	48·00	40·00
Urban	17·07	9·32	41·21	45·34	56·41	55·48	52·00	60·00
Total	100·00	76·61	19·93	2·08	0·84	0·35	0·12	0·07
Rural	100·00	83·77	14·13	1·37	0·44	0·19	0·07	0·03
Urban	100·00	41·84	48·13	5·51	2·77	1·13	0·37	0·25

Distribution of workshops and factories in Jammu and Kashmir by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	41,889	32,093	8,350	869	351	146	50	30
Electricity	1,016	198	504	147	74	61	20	12
Liquid fuel	241	72	134	11	10	9	2	3
Coal, wood and bagasse	9,066	5,334	3,439	175	88	14	10	6
Other power	18,632	17,625	811	175	16	5	..	..
No power	12,934	8,864	3,462	361	163	57	18	9
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	2·43	0·62	6·04	16·92	21·08	41·78	40·00	40·00
Liquid fuel	0·57	0·22	1·60	1·26	2·85	6·16	4·00	10·00
Coal, wood and bagasse	21·64	16·62	41·19	20·14	25·07	9·59	20·00	20·00
Other power	44·48	54·92	9·71	20·14	4·56	3·43	..	..
No power	30·88	27·62	41·46	41·54	46·44	39·04	36·00	30·00
Total	100·00	76·61	19·93	2·08	0·84	0·35	0·12	0·07
Electricity	100·00	19·49	49·61	14·47	7·28	6·00	1·97	1·18
Liquid fuel	100·00	29·88	55·60	4·56	4·15	3·73	0·83	1·25
Coal, wood and bagasse	100·00	58·84	37·93	1·93	0·97	0·15	0·11	0·07
Other power	100·00	94·59	4·35	0·94	0·09	0·03	..	..
No power	100·00	68·53	26·77	2·79	1·26	0·44	0·14	0·07

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	41,889	1,016	241	9,066	18,632	12,934
Rural	34,740	186	217	6,533	18,224	9,580
Urban	7,149	830	24	2,533	408	3,354
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	82·93	18·31	90·04	72·06	97·81	74·07
Urban	17·07	81·69	9·96	27·94	2·19	25·93
Total	100·00	2·43	0·57	21·64	44·48	30·88
Rural	100·00	0·53	0·62	18·81	52·46	27·58
Urban	100·00	11·61	0·33	35·43	5·71	46·92

It will be seen that the unorganised sector, represented by 1-person and 2-5 person establishments, commands an overwhelming majority in the urban as well as rural areas. Even 6-9 person establishments enjoy as much higher proportion in rural areas. In rural areas establishments employing a limit of 5 persons is as much as 97·9 per cent, while in urban areas it is no less than 90 per cent. The proportion of establishments using electricity in single person units is only 0·6 per cent of all establishments in that category, while in 2-5 person establishments it is 6 per cent. Thereafter, the ratio mounts rapidly until it is 42 per cent in the employment brackets of 20-49. The use of liquid fuel mounts by much slower degrees from 0·22 per cent in 1-person establishments to 10 per cent in 100+ units, with however a dip to 4 per cent in the 50-99 group.

Of the total number of units using electricity the 2-5 person units account for nearly 50 per cent, while the single person units account for just under one-fifth (19·5 per cent). Of the total number of units using liquid fuel, the single

person establishment accounts for 30 per cent and the 2-5 person concern about 56 per cent. This is evidence of a welcome step towards modernisation of technique in the unorganised sector, although the proportions give the lie to the low absolute numbers using electricity or liquid fuel because the proportion of all units using electricity is no more than 2·43 per cent (0·53 per cent for rural and 11·61 for urban) and that of units using liquid fuel even less, being only 0·57 per cent (0·62 per cent for rural and 0·33 per cent for urban).

There are in all 41,889 workshops and factories in the State as a whole falling under Divisions 0, 2 & 3. Of these 34,740 are in rural areas and 7,149 in urban areas.

Kerala

The following statement gives the distribution of workshops and factories by size of employment, rural and urban, and power used :

Distribution of workshops and factories in Kerala by size of employment, rural and urban and by type of fuel or power used

	Size of employment							
Total Rural Urban	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total ..	58,365	20,901	28,937	4,083	2,524	1,152	383	385
Rural ..	39,262	15,718	18,192	2,538	1,622	707	234	251
Urban ..	19,103	5,183	10,745	1,545	902	445	149	134
Total ..	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural ..	67·27	75·20	62·87	62·16	64·26	61·37	61·10	65·19
Urban ..	32·73	24·80	37·13	37·84	35·74	38·63	38·90	34·81
Total ..	100·00	35·81	49·58	7·00	4·32	1·97	0·66	0·66
Rural ..	100·00	40·03	46·34	6·46	4·13	1·80	0·60	0·64
Urban ..	100·00	27·13	56·25	8·09	4·72	2·33	0·78	0·70

	Size of employment							
Type of fuel or power used	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	58,365	20,901	28,937	4,083	2,524	1,152	383	385
Electricity	4,528	1,079	1,934	512	383	299	174	147
Liquid fuel	669	223	245	51	46	61	24	19
Coal, wood and bagasse ..	27	3	8	4	3	4	1	4
Other power	11	..	4	..	..	4	..	3
No power	53,130	19,596	26,746	3,516	2,092	784	184	212
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	7·76	5·16	6·68	12·54	15·18	25·95	45·43	38·18
Liquid fuel	1·14	1·07	0·85	1·25	1·82	5·29	6·27	4·94
Coal, wood and bagasse ..	0·05	0·01	0·03	0·10	0·12	0·35	0·26	1·04
Other power	0·02	..	0·01	..	..	0·35	..	0·78
No power	91·03	93·76	92·43	86·11	82·88	68·06	48·04	55·06
Total	100·00	35·81	49·58	7·00	4·32	1·97	0·66	0·66
Electricity	100·00	23·83	42·71	11·31	8·46	6·60	3·84	3·25
Liquid fuel	100·00	33·33	36·62	7·62	6·88	9·12	3·59	2·84
Coal, wood and bagasse ..	100·00	11·11	29·63	14·82	11·11	14·82	3·70	14·81
Other power	100·00	..	36·37	..	..	36·37	..	27·26
No power	100·00	36·88	50·34	6·62	3·94	1·47	0·35	0·40

Distribution of workshops and factories in Kerala by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	58,365	4,528	669	27	11	53,130
Rural	39,262	2,396	617	9	9	36,231
Urban	19,103	2,132	52	18	2	16,899
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	67·27	52·92	92·23	33·33	81·82	68.19
Urban	32·73	47·08	7·77	66·67	18·18	31·81
Total	100·00	7·76	1·14	0·05	0·02	91·03
Rural	100·00	6·10	1·57	0·03	0·02	92·28
Urban	100·00	11·16	0·27	0·10	0·01	88·46

The proportion of units in rural areas is almost uniformly higher (61 to 65 rural against 35 to 39 urban) than that in urban localities in all employment brackets except the single-person establishment, the ratio of which is much higher in rural (75·2) than urban areas (24·8). The unorganised sector employing 1-5 persons claims 40·03+46·34 =86·37 per cent of all establishments in rural areas while this ratio is 27·13+ 56·25=83·38 per cent or about equally high in urban areas. The use of electricity in the unorganised sector is much below what is observed in Gujarat or Punjab. Only 5·2 per cent of single person units and 6·7 per cent of 2-5 person units use electricity. There is a steep drop in the ratios from the employment bracket 6-9 onwards both in rural and urban areas, the urban gradient being only slight less steep than the rural. The predominant employment range both in rural and urban areas is the 2-5 person unit, which, too, is in the unorganised sector.

The use of electricity rises with each employment bracket until it reaches a ratio of 45·4 per cent in 50-99, but drops to 38·2 per cent in 100+. The use of liquid fuel, solid fuel and other power is very restricted. Compared to several other States, however, the proportion of rural workshops and factories using electricity is comparatively high being 6·1 per cent and than of urban workshops and factories 11·2.

Madhya Pradesh

The following abstract table highlights the major features of the industrial structure of Madhya Pradesh :

Distribution of workshops and factories in Madhya Pradesh by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	405,028	250,993	146,969	3,693	1,905	1,060	234	174
Rural	336,926	220,828	113,079	1,634	822	479	69	15
Urban	68,102	30,165	33,890	2,059	1,083	581	165	159
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	83·19	87·98	76·94	44·25	43·15	45·19	29·49	8·62
Urban	16·81	12·02	23·06	55·75	56·85	54·81	70·51	91·38
Total	100·00	61·97	36·29	0·91	0·47	0·26	0·06	0·04
Rural	100·00	65·54	33·56	0·49	0·24	0·14	0·02	0·01
Urban	100·00	44·30	49·77	3·02	1·59	0·85	0·24	0·23

Distribution of workshops and factories in Madhya Pradesh by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	405,028	250,993	146,969	3,693	1,905	1,060	234	174
Electricity	6,111	1,823	3,039	526	353	200	73	97
Liquid fuel	7,843	3,440	4,023	168	117	77	13	5
Coal, wood and bagasse	68	11	19	3	5	6	5	19
Other power ..	22	10	12	..	..	..	..	..
No power	390,984	245,709	139,876	2,996	1,430	777	143	53
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	1·51	0·73	2·07	14·24	18·53	18·87	31·20	55·75
Liquid fuel	1·94	1·37	2·74	4·55	6·14	7·26	5·55	2·87
Coal, wood and bagasse	0·02	N	0·01	0·08	0·26	0·57	2·14	10·92
Other power ..	N	N	0·01	..	..	..	..	..
No power	96·53	97·90	95·17	81·13	75·07	73·30	61·11	30·46
Total	100·00	61·97	36·29	0·91	0·47	0·26	0·06	0·04
Electricity	100·00	29·83	49·73	8·61	5·78	3·27	1·19	1·59
Liquid fuel	100·00	43·86	51·30	2·14	1·49	0·98	0·17	0·06
Coal, wood and bagasse	100·00	16·18	27·94	4·41	7·35	8·83	7·35	27·94
Other power ..	100·00	45·45	54·55	..	..	..	..	..
No power	100·00	62·84	35·77	0·77	0·37	0·20	0·04	0·01

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	405,028	6,111	7,843	68	22	390,984
Rural	336,926	405	6,225	10	1	330,285
Urban	68,102	5,706	1,618	58	21	60,699
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	83·19	6·63	79·37	14·71	4·55	84·48
Urban	16·81	93·37	20·63	85·29	95·45	15·52
Total	100·00	1·51	1·94	0·02	N	96·53
Rural	100·00	0·12	1·85	N	N	98·03
Urban	100·00	8·38	2·38	0·08	0·03	89·13

'N' indicates that the figures are negligible.

Of the total number of 405,028 workshops and factories censused in 1960, as much as 83·2 per cent were in the rural areas and only 16·8 per cent in urban areas. The latter is slightly, but not appreciably, higher than the proportion of urban to total population, which is 14·29 per cent. This seems to suggest, as a first thought, homogeneity of the rural and the urban scene, in other words, that the urban pattern of industry would not be substantially different from the rural. But there are substantial differences, as there ought to be, between the rural and urban types of workshops and factories. Thus while the single-person and 2-5 person workshops are in the overwhelming majority in rural areas, their proportions are quite low in the urban areas. On the contrary, the proportion of workshops and factories, employing 6-49, 50-99, and 100 persons or over steeply and progressively declines in the rural areas while it rises with complementary steepness in urban areas. This is definitely indicative of superior availability of industrial power and of organisational and entrepreneurial activity in the urban areas and reflects the ready pool of skill and employable labour that is building up in urban Madhya Pradesh. The same conclusion can be drawn to a certain extent from the *inter se* distribution of workshops and factories of various employment sizes in the rural and urban areas, although in such a distribution the more noticeable feature is the essential homogeneity of the rural and urban patterns, despite small differences. Thus while the single person establishment is dominant (66 per cent) in the rural areas, the dominant urban employment range (50 per cent) is 2-5 person. Establishments employing up to 5 persons account for 99·10 per cent of all workshops and factories in rural areas. While they constitute 94·07 per cent in urban areas. This makes for a more graduated distribution of workshops and factories in the higher employment ranges in urban areas than in rural.

The table also shows the extent to which the use of electricity, liquid fuel, solid fuel and other power is restricted in the low employment ranges. Thus while any kind of power is used in less than 5 per cent of workshops and factories in the 1-person and 2-5 person ranges, the use of electricity steadily rises from 14·24 per cent of all establishments in the 6-9 person range to 55·75 per cent in 100+, that of solid fuel similarly rises from 0·08 per cent in the 6-9 persons range to 10·92 per cent in the 100+ ranges. Liquid fuel however shows a different curve. It shows steady rise from 4·55 per cent in 6-9 person range to 7·26 per cent in 20-49 range but a graduated decline to 5·55 per cent in 50-99 range and 2·87 per cent in the 100+ range. Thus suggests that in the higher employment ranges electricity and liquid fuel are competitive and the former substitutes the latter as the range goes above 20-49. The use of no power declines steadily from 81 per cent in 6-9 person range to 61 per cent in 50-99 person range and sharply to 30·46 per cent in the 100+ range, proving that units upward of 6-9 persons and particularly beyond 50-99 persons are difficult to organise and sustain without power.

What is heartening however is the high proportion of establishments in the 1-person and 2-5 person ranges of all workshops and factories employing either electricity or liquid fuel. Of all workshops and factories employing electricity, those employing up to 5 persons form as much as 79·56 per cent, while the corresponding figure for liquid fuel is 95·16. While this may not in reality mean a great deal, the proportions of 1-person or 2-5 person establishments themselves being so high, it at least means that the use of electricity and liquid fuel is percolating down to small establishments. Solid fuel however shows a slightly different pattern. The use of coal, wood and bagasse is comparatively low (44·12 per cent) in establishments employing up to 5 persons, but increases in an undulating pattern from 4·41 per cent in the 6-9 range to 7·35 in the 50-99 range but sharply to 28 per cent

the 100+ range. Such a pattern appears to have been caused by the prevalence of rice mills etc. in the eastern districts. The use of no power again is very much restricted to the up to 5-person range (98·61 per cent).

The use of electricity however is almost overwhelmingly confined to urban workshops and factories (93·37 per cent). Liquid fuel and electricity seem to have carved for themselves mutually exclusive zones : the former dominates the rural scene, and the latter the urban. Solid fuel, again, is in greater evidence in the urban sector (85·3 per cent) than liquid fuel is in the rural (79·4 per cent). The ratios are reversed in the case of 'no power', the rural sector accounting for 84·5 per cent and the urban 15·5. It is curious that 'other power'—meaning mechanical and animal drawn power—should be overwhelmingly dominant in the urban sector (95·5 per cent), when one would have expected it to be otherwise. It explains the extent to which industry even in the urban areas still harks back to traditional forms of organisation and production and even to traditional sources of power where modern and perhaps cheaper sources are available. It also underlines a disinclination to change into or mistrust of modern techniques and tools. But these surprises are explained when one finds that 98 per cent of all workshops and factories in rural areas use no power at all and 1·85 per cent of all rural establishments use liquid fuel. The use of electricity in urban areas comes as a silver lining. It makes for 8·4 per cent of all urban workshops and factories, while liquid fuel makes for another 2·4. The use of no power in all urban establishments is 89 per cent. The distribution of industries in Madhya Pradesh is thus still characterised by homogeneity in the rural and urban areas, with but small thickenings of activity in the towns.

The use of electricity is obviously limited by its supply. It is most in evidence in Indore Division, where electricity is the most widely used power in all sizes of establishments. Judged by this standard, 'Indore Division is some way towards industrialisation'. Jabalpur Division follows, although much behind, in the matter of small and medium establishments and then Raipur with its large establishments. Bhopal, Gwalior, Bilaspur and Rewa Divisions use little electricity, except what obtains in and around the cities of Gwalior, Bilaspur and Panna. The Census Superintendent has classified size of establishments by use of power in the administrative divisions as follows :

Distribution of large (50+), medium (20-49) and small (below 20) establishments in the administrative divisions by kind of power used

Power used	Type of establishments	Divisions in which the highest numbers are found	Divisions in which the smallest numbers are found
Electricity	Large	Indore	Rewa
	Medium	Indore and Raipur	Rewa
	Small	Indore	Bilaspur
Liquid fuel	Large	Raipur	Bhopal and Jabalpur
	Medium	Raipur	Rewa
	Small	Indore	Bilaspur
Other power	Large	Indore	Rewa
	Medium	Raipur	Rewa
	Small	Indore	Rewa
No Power	Large	Jabalpur	Bhopal
	Medium	Jabalpur	Bhopal
	Small	Jabalpur	Gwalior

Madras

The following tables give an account of industrial establishments classified by size of employment and kind of power used in rural and urban areas.

Distribution of workshops and factories in Madras by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	192,164	33,467	88,237	9,516	4,781	2,258	580	519	52,806
Rural	85,588	15,187	38,324	3,531	1,543	705	158	160	25,980
Urban	106,576	18,280	49,913	5,985	3,238	1,553	422	359	26,826
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	44·54	45·38	43·43	37·11	32·27	31·22	27·24	30·83	49·20
Urban	55·46	54·62	56·57	62·89	67·73	68·78	72·76	69·17	50·80
Total	100·00	17·42	45·92	4·95	2·49	1·17	0·30	0·27	27·48
Rural	100·00	17·74	44·78	4·13	1·80	0·82	0·18	0·19	30·36
Urban	100·00	17·15	46·83	5·61	3·04	1·46	0·40	0·34	25·17

Type of fuel or power used	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	192,164	33,467	88,237	9,516	4,781	2,258	580	519	52,806
Electricity	12,809	1,129	6,263	1,641	1,320	975	295	357	829
Liquid fuel	1,741	107	1,086	160	119	69	8	7	185
Coal, wood and bagasse	2,054	396	1,226	158	74	36	25	19	120
Other power	266	41	172	26	12	4	1	..	10
No power	175,294	31,794	79,490	7,531	3,256	1,174	251	136	51,662
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	6·66	3·38	7·10	17·25	27·61	43·18	50·86	68·79	1·57
Liquid fuel	0·91	0·32	1·23	1·68	2·49	3·06	1·38	1·35	0·35
Coal, wood and bagasse	1·07	1·18	1·39	1·66	1·55	1·59	4·31	3·66	0·23
Other power	0·14	0·12	0·19	0·27	0·25	0·18	0·17	..	0·02
No power	91·22	95·00	90·09	79·14	68·10	51·99	43·28	26·20	97·83
Total	100·00	17·42	45·92	4·95	2·49	1·17	0·30	0·27	27·48
Electricity	100·00	8·81	48·90	12·81	10·31	7·61	2·30	2·79	6·47
Liquid fuel	100·00	6·15	62·38	9·19	6·83	3·96	0·46	0·40	10·63
Coal, wood and bagasse	100·00	19·28	59·69	7·69	3·60	1·75	1·22	0·93	5·84
Other power	100·00	15·41	64·66	9·78	4·51	1·50	0·38	..	3·76
No power	100·00	18·14	45·35	4·29	1·86	0·67	0·14	0·08	29·47

Distribution of workshops and factories in Madras by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	192,164	12,809	1,741	2,054	266	175,294
Rural	85,588	3,477	1,418	903	99	79,691
Urban	106,576	9,332	323	1,151	167	95,603
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	44·54	27·14	81·45	43·96	37·22	45·46
Urban	55·46	72·86	18·55	56·04	62·78	54·54
Total	100·00	6·66	0·91	1·07	0·14	91·22
Rural	100·00	4·06	1·66	1·05	0·12	93·11
Urban	100·00	8·76	0·30	1·08	0·16	89·70

Madras is the only State besides Gujarat and Delhi in which the number of industrial establishments (85,588) in rural areas is substantially less than that in urban areas (106,576). This speaks volumes for rural-urban interdependence and balance and insinuates substantial use of commercial power.

The trend observed in other States read with the statistics of industries whose size is not stated suggests that the category not stated may be allocated to the single-person employment group. Even with this allocation it is significant that the urban ratio of establishments should be higher than the rural in every employment group.

With the amalgamation of the 'not stated' category into the single-person group, this latter category bears a higher ratio than the 2-5 person group only in the rural areas, whereas in the urban areas the 2-5 person group still leads over the 1-person category by a fair margin. The other distinguishing features of Madras are the elegantly graduated declines in the proportions from the 6-9 employment group upwards in both rural and urban areas.

The extent of the use of electricity is well illustrated by the fact that as much as 7 per cent of all establishments employ electricity as power. Starting with 3·4 per cent electricity used in 1-person establishments it rises by rapid degrees 7 per cent in 2-5, 17 per cent in 6-9, 28 per cent in 10-19, 43 per cent in 20-49, 51 per cent in 50-99 to as much as 69 per cent in units employing more than 100 persons and 1·57 per cent in 'not stated'. The use of other sources of power, either in rural or urban areas, is low compared to the use of electricity.

Maharashtra

A broad summary of the main features of the census of workshops and factories in Maharashtra is given in the following table :

Distribution of workshops and factories in Maharashtra by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	320,460	179,574	118,811	11,135	5,834	3,123	991	992
Rural	202,508	130,278	67,823	2,057	1,041	978	221	110
Urban	117,952	49,296	50,988	9,078	4,793	2,145	770	882
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	63·19	72·55	57·08	18·47	17·84	31·32	22·30	11·09
Urban	36·81	27·45	42·92	81·53	82·16	68·68	77·70	88·91
Total	100·00	56·04	37·08	3·47	1·82	0·97	0·31	0·31
Rural	100·00	64·33	33·49	1·02	0·51	0·48	0·11	0·06
Urban	100·00	41·79	43·23	7·70	4·06	1·82	0·65	0·75

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
	2	3	4	5	6	7	8	9
Total	320,460	179,574	118,811	11,135	5,834	3,123	991	992
Electricity	18,555	4,134	7,021	3,029	1,900	1,256	512	703
Liquid fuel	16,527	9,284	5,922	566	454	234	48	19
Coal, wood and bagasse	8	3	2	1	2	..	..	..
Other power	..	..	..	..	..	..	..	..
No power	285,370	166,153	105,866	7,539	3,478	1,633	431	270
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	5·79	2·30	5·91	27·20	32·57	40·22	51·67	70·87
Liquid fuel	5·16	5·17	4·98	5·08	7·78	7·49	4·84	1·91
Coal, wood and bagasse	N	N	N	0·01	0·03	..	..	..
Other power	..	..	..	..	..	..	..	..
No power	89·05	92·53	89·11	67·71	59·62	52·29	43·49	27·22
Total	100·00	56·04	37·08	3·47	1·82	0·97	0·31	0·31
Electricity	100·00	22·28	37·84	16·32	10·24	6·77	2·76	3·79
Liquid fuel	100·00	56·17	35·83	3·42	2·75	1·42	0·29	0·12
Coal, wood and bagasse	100·00	37·50	25·00	12·50	25·00	..	..	..
Other power	..	..	..	..	..	..	..	..
No power	100·00	58·22	37·10	2·64	1·22	0·57	0·15	0·10

Distribution of workshops and factories in Maharashtra by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	320,460	18,555	16,527	8	..	285,370
Rural	202,508	1,491	13,487	..	..	187,530
Urban	117,952	17,064	3,040	8	..	97,840
Total	100·00	100·00	100·00	100·00	..	100·00
Rural	63·19	8·04	81·61	..	..	65·71
Urban	36·81	91·96	18·39	100·00	..	34·29
Total	100·00	5·79	5·16	N	..	89·05
Rural	100·00	0·74	6·66	..	..	92·60
Urban	100·00	14·47	2·58	N	..	82·95

The first conclusion that one may draw from the above table is that the single worker and 2-5 worker workshops account for the predominance of mere numbers of units in rural areas. If these units were taken away, units employing more than 5 persons each in urban areas would be several times higher than those in rural areas. Out of every 100 single worker establishments in Maharashtra, the rural areas claim 73 and the urban areas 27. Out of every 100 establishments employing 2-5 workers each, the rural areas have 57 and the urban areas 43. But out of every 100 establishments in the categories 6-9, 10-19 and 100+ the urban areas claim 82, 82 and 89 respectively. The slight dip in the urban proportions in the 20-49 and 50-99 categories (69 and 78 per cent) is explained by the presence of a large number of food-processing industries employing similar ranges in the rural areas. Single worker establishments account for a little under two thirds of all rural workshops and factories while 2-5 worker workshops account for just over a third of all rural establishments. In consequence there is a precipitous drop to the higher categories of employment, rural establishments employing more than 5 workers accounting for not more than 2·18 per cent of all rural workshops and factories. By contrast the urban picture is more gently graduated. Here 42 per cent of all establishments are single worker workshops and 43 per cent are 2-5 worker units. Thus while the single worker unit is most numerous in rural areas (64 per cent), the 2-5 worker unit is most common (43 per cent) in urban areas. Urban establishments employing more than 5 persons account for 15 per cent of all workshops and factories against 2·18 per cent in rural areas. Further, although the descent from 2-5 worker units to higher units is precipitous in both rural and urban areas, the urban picture is more gently graduated. Thus, in rural areas the proportions of 6-9 and 10-19 units are 1·02 and 0·51 per cent: in urban areas they are 7·70 and 4·06 per cent. This urban lead is well-maintained in the still larger units.

Mysore

The following statement gives the distribution of industrial establishments in Mysore State, classified by rural and urban, by size of employment and by kind of power or fuel used:

Distribution of workshops and factories in Mysore by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	98,349	40,478	50,316	4,307	1,936	886	219	207
Rural	53,663	24,980	26,402	1,433	583	202	34	29
Urban	44,686	15,498	23,914	2,874	1,353	684	185	178
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	54·56	61·71	52·47	33·27	30·11	22·80	15·53	14·01
Urban	45·44	38·29	47·53	66·73	69·89	77·20	84·47	85·99
Total	100·00	41·16	51·16	4·38	1·97	0·90	0·22	0·21
Rural	100·00	46·55	49·20	2·67	1·09	0·38	0·06	0·05
Urban	100·00	34·68	53·52	6·43	3·03	1·53	0·41	0·40

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	98,349	40,478	50,316	4,307	1,936	886	219	207
Electricity	7,901	2,239	3,256	1,186	645	323	104	148
Liquid fuel	3,786	1,484	1,881	175	128	79	29	10
Coal, wood and bagasse ..	361	106	182	19	35	12	2	5
Other power	545	225	276	21	8	11	3	1
No power	85,756	36,424	44,721	2,906	1,120	461	81	43
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	8·03	5·53	6·47	27·54	33·32	36·46	47·49	71·50
Liquid fuel	3·85	3·67	3·74	4·06	6·61	8·92	13·24	4·83
Coal, wood and bagasse ..	0·37	0·26	0·36	0·44	1·81	1·35	0·91	2·42
Other power	0·55	0·56	0·55	0·49	0·41	1·24	1·37	0·48
No power	87·20	89·98	88·88	67·47	57·85	52·03	36·99	20·77
Total	100·00	41·16	51·16	4·38	1·97	0·90	0·22	0·21
Electricity	100·00	28·34	41·21	15·01	8·16	4·09	1·32	1·87
Liquid fuel	100·00	39·20	49·68	4·62	3·38	2·09	0·77	0·26
Coal, wood and bagasse ..	100·00	29·36	50·42	5·26	9·70	3·32	0·55	1·39
Other power	100·00	41·29	50·64	3·85	1·47	2·02	0·55	0·18
No power	100·00	42·47	52·15	3·39	1·31	0·54	0·09	0·05

Distribution of workshops and factories in Mysore by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	98,349	7,901	3,786	361	545	85,756
Rural	53,663	1,823	2,924	77	474	48,365
Urban	44,686	6,078	862	284	71	37,391
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	54·56	23·07	77·23	21·33	86·97	56·40
Urban	45·44	76·93	22·77	78·67	13·03	43·60
Total	100·00	8·03	3·85	0·37	0·55	87·20
Rural	100·00	3·40	5·45	0·14	0·88	90·13
Urban	100·00	13·60	1·93	0·64	0·16	83·67

The majority of the total number of establishments are in rural areas and so is the category of those which employ a limit of 5 persons. Thus, of the total number of establishments in the State about 55 per cent are in rural areas and only 45 in urban areas. About 62 and 52 per cent of 1-person and 2-5 person establishments respectively are in rural areas. But the balance changes sharply with employment ranges above 5, in which the urban areas take a very decisive upper hand.

Both in rural and urban areas of Mysore, and more particularly in the urban, the 2-5 person establishment is predominant. The upper employment brackets taper off much more sharply in rural than in urban areas.

The proportion of electricity use is among the highest in India. This has been brought out also elsewhere in this book. The following table compares some of the high electricity using States :

States with high electricity use in industrial establishments, percentage of establishments using electricity in industries of various employment sizes

	Total	1-person	2-5	6-9	10-19	20-49	50-99	100+
Delhi	52·21	30·51	46·24	60·28	66·31	71·88	67·62	60·57
Gujarat	16·92	6·28	18·29	59·08	48·16	51·25	61·17	71·13
Punjab	14·94	3·37	20·29	47·05	64·41	67·71	69·58	91·45
Mysore	8·03	5·53	6·47	27·54	33·32	36·46	47·49	71·50
Kerala	7·76	5·16	6·68	12·54	15·18	25·95	45·53	38·18
Madras	6·66	3·38	7·10	17·25	27·61	43·18	50·86	68·79

It is curious that the Gujarat-Punjab pattern of electricity use in industries of various employment groups is markedly different from the kinship betrayed by Mysore, Kerala and Madras, the three States of India with the most highly developed grids. Electricity in the latter States has not percolated into the employment brackets below 10 to the same extent as in Gujarat and Punjab. Use in the upper employment brackets is of course high and electricity is certainly in much wider use in every bracket than liquid fuel.

Within their respective spheres, however, electricity is comparatively less used in the 1-person and 2-5 person establishments than liquid fuel. In single person establishments the percentage of electri-

city use is 28·34 to liquid fuel's 39·20. In 2-5 person-establishments this ratio is 41·21 to liquid fuel's 49·68. But in ranges employing more than 5 persons, electricity is far more popular than liquid fuel. Despite the extensive grid network in the countryside the percentage of establishments using liquid fuel is appreciably higher than those using electricity in rural areas. But already in the urban areas electricity is firmly in the saddle.

Orissa

The following statement gives the distribution of workshops and factories by range of employment, rural and urban and power used :

Distribution of workshops and factories in Orissa by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	226,715	85,277	134,839	5,345	875	252	74	53
Rural	215,480	80,250	129,328	5,004	686	152	44	16
Urban	11,235	5,027	5,511	341	189	100	30	37
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	95·04	94·11	95·91	93·62	78·40	60·32	59·46	30·19
Urban	4·96	5·89	4·09	6·38	21·60	39·68	40·54	69·81
Total	100·00	37·61	59·48	2·36	0·39	0·11	0·03	0·02
Rural	100·00	37·24	60·02	2·32	0·32	0·07	0·02	0·01
Urban	100·00	44·74	49·05	3·04	1·68	0·89	0·27	0·33

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	226,715	85,277	134,839	5,345	875	252	74	53
Electricity	659	131	269	88	104	40	12	15
Liquid Fuel	1,179	580	467	39	47	24	18	4
Coal, wood and bagasse	65,761	27,718	36,415	1,261	227	81	26	33
Other power	10,972	3,397	7,282	283	9	1	..	–
No power	148,144	53,451	90,406	3,674	488	106	18	1
Total	100.00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	0·29	0·16	0·20	1·65	11·89	15·87	16·22	28·30
Liquid fuel	0·52	0·68	0·35	0·73	5·37	9·53	24·32	7·55
Coal, wood and bagasse	29·01	32·50	27·00	23·59	25·94	32·14	35·14	62·26
Other power	4·84	3·98	5·40	5·29	1·03	0·40	..	..
No power	65·34	62·68	67·05	68·74	55·77	42·06	24·32	1·89
Total	100·00	37·61	59·48	2·36	0·39	0·11	0·03	0·02
Electricity	100·00	19·88	40·82	13·35	15·78	6·07	1·82	2·28
Liquid fuel	100·00	49·19	39·61	3·31	3·99	2·03	1·53	0·34
Coal, wood and bagasse	100·00	42·15	55·37	1·92	0·35	0·12	0·04	0·05
Other power	100·00	30·96	66·37	2·58	0·08	0·01	..	..
No power	100·00	36·08	61·03	2·48	0·33	0·07	0·01	N

Distribution of workshops and factories in Orissa by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	226,715	659	1,179	65,761	10,972	148,144
Rural	215,480	101	1,032	62,193	10,833	141,321
Urban	11,235	558	147	3,568	139	6,823
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	95·04	15·33	87·53	94·57	98·73	95·39
Urban	4·96	84·67	12·47	5·43	1·27	4·61
Total	100·00	0·29	0·52	29·01	4·84	65·34
Rural	100·00	0·05	0·48	28·86	5·03	65·58
Urban	100·00	4·96	1·31	31·76	1·24	60·73

The rural establishment is numerically predominant in every employment bracket except in 100+. The urban proportions are some of the lowest for any State in India. The vast majority of the establishments are in the unorganised sector employing 1-5 persons. In rural Orissa the proportion of 1-5 person units is 37·24+60·02=97·26 per cent; in urban Orissa it is 44·74+49·05=93·79 per cent. The drop to the 6-9 category is very steep whereafter the gradient is much smoother in the urban sector than in the rural.

This large unorganised sector is almost unmitigated inasmuch as the use of electricity is very low (less than 0·2 per cent) in the 1-5 person categories. The use of liquid fuel is not appreciably high either being much under one per cent up to 6-9 persons. Only 101 establishments in rural Orissa use electricity (a proportion of 0·05 per cent), the number in urban Orissa being 558 (5 per cent). The use of liquid fuel in rural Orissa is confined to 1,032 units or 0·48 per cent of all rural establishments. The use of solid fuel is extensive not only in the small unorganised sector but in the organised sector as well. Other power, mainly draught animals and water mills, is used up to the employment bracket of 10-19.

Punjab

The following statement gives an account of the industrial establishments in Punjab, by rural and urban areas, by size of establishments and by kind of power used :

Distribution of workshops and factories in Punjab by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	66,944	34,587	26,237	2,920	1,978	830	240	152
Rural	33,622	23,136	9,512	455	304	137	49	29
Urban	33,322	11,451	16,725	2,465	1,674	693	191	123
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	50·22	66·89	36·25	15·58	15·37	16·51	20·42	19·08
Urban	49·78	33·11	63·75	84·42	84·63	83·49	79·58	80·92
Total	100·00	51·67	39·19	4·36	2·95	1·24	0·36	0·23
Rural	100·00	68·81	28·29	1·35	0·90	0·41	0·15	0·09
Urban	100·00	34·37	50·19	7·40	5·02	2·08	0·57	0·37

Distribution of workshops and factories in Punjab by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big work-shops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	66,944	34,587	26,237	2,920	1,978	830	240	152
Electricity	10,003	1,164	5,323	1,374	1,274	562	167	139
Liquid fuel	4,227	637	3,194	188	115	63	25	5
Coal, wood and bagasse	261	55	87	40	37	22	15	5
Other power	9,484	8,524	895	44	10	9	2	..
No power	42,969	24,207	16,738	1,274	542	174	31	3
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	14·94	3·37	20·29	47·05	64·41	67·71	69·58	91·45
Liquid fuel	6·31	1·84	12·17	6·44	5·81	7·59	10·42	3·29
Coal, wood and bagasse	0·39	0·16	0·33	1·37	1·87	2·65	6·25	3·29
Other power	14·17	24·64	3·41	1·51	0·51	1·09	0·83	..
No power	64·19	69·99	63·80	43·63	27·40	20·96	12·92	1·97
Total	100·00	51·67	39·19	4·36	2·95	1·24	0·36	0·23
Electricity	100·00	11·64	53·21	13·73	12·74	5·62	1·67	1·39
Liquid fuel	100·00	15·07	75·56	4·45	2·72	1·49	0·59	0·12
Coal, wood and bagasse	100·00	21·07	33·33	15·32	14·18	8·43	5·75	1·92
Other power	100·00	89·88	9·44	0·46	0·11	0·09	0·02	..
No power	100·00	56·34	38·95	2·96	1·26	0·41	0·07	0·01

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	66,944	10,003	4,227	261	9,484	42,969
Rural	33,622	2,000	3,373	116	9,250	18,883
Urban	33,322	8,003	854	145	234	24,086
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	50·22	19·99	79·80	44·44	97·53	43·95
Urban	49·78	80·01	20·20	55·56	2·47	56·05
Total	100·00	14·94	6·31	0·39	14·17	64·19
Rural	100·00	5·95	10·03	0·35	27·51	56·16
Urban	100·00	24·02	2·56	0·44	0·70	72·28

Single-person establishments are numerous in the rural areas and account for more than two thirds of all rural establishments. This type of establishment in the rural areas is more than double the number in urban areas. Excluding this category, the concentration of industrial establishments becomes very marked in the urban areas of Punjab.

The 2-5 person establishment accounts for 50 per cent of all urban units in Punjab. The upper employment brackets taper off very sharply in rural but less sharply in urban areas.

The use of electricity and liquid fuel is low only in the single-person establishments. In all other employment brackets Punjab rates the highest among States in electricity and very high even in liquid fuel. We also obtain a very neat picture of complementarity between liquid fuel in rural areas and electricity

in towns. For example, the percentage of establishments using electricity is 20 in rural and 80 in urban areas. This ratio is reversed in the case of liquid fuel. Solid fuel and no power are curiously enough proportionately more to be found in urban areas (44 per cent in rural and 56 per cent in urban). But other power, like wind or water mill or bullocks, is overwhelmingly concentrated in rural areas.

Rajasthan

The following statement gives the distribution of workshops and factories in Rajasthan enumerated in the houselists classified by rural and urban, by size of employment and power used :

Distribution of workshops and factories in Rajasthan by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	44,215	23,176	18,714	1,385	545	227	76	92
Rural	26,069	15,044	10,337	467	122	55	23	21
Urban	18,146	8,132	8,377	918	423	172	53	71
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	58·96	64·91	55·24	33·72	22·39	24·23	30·26	22·83
Urban	41·04	35·09	44·76	66·28	77·61	75·77	69·74	77·17
Total	100·00	52·42	42·33	3·13	1·23	0·51	0·17	0·21
Rural	100·00	57·71	39·65	1·79	0·47	0·21	0·09	0·08
Urban	100·00	44·81	46·17	5·06	2·33	0·95	0·29	0·39

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	44,215	23,176	18,714	1,385	545	227	76	92
Electricity	2,678	736	1,513	206	101	62	20	40
Liquid fuel	4,776	1,180	3,241	198	80	46	17	14
Coal, wood and bagasse	10,798	6,327	3,981	330	92	36	14	18
Other power	1,853	1,190	622	28	9	1	1	2
No power	24,110	13,743	9,357	623	263	82	24	18
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	6·06	3·18	8·09	14·87	18·53	27·31	26·31	43·48
Liquid fuel	10·80	5·09	17·32	14·30	14·68	20·27	22·37	15·22
Coal, wood and bagasse	24·42	27·30	21·27	23·83	16·88	15·86	18·42	19·57
Other power	4·19	5·13	3·32	2·02	1·65	0·44	1·32	2·17
No power	54·53	59·30	50·00	44·98	48·26	36·12	31·58	19·56
Total	100·00	52·42	42·33	3·13	1·23	0·51	0·17	0·21
Electricity	100·00	27·48	56·50	7·69	3·77	2·32	0·75	1·49
Liquid fuel	100·00	24·71	67·86	4·15	1·67	0·96	0·36	0·29
Coal, wood and bagasse	100·00	58·59	36·87	3·06	0·85	0·33	0·13	0·17
Other power	100·00	64·22	33·57	1·51	0·49	0·05	0·05	0·11
No power	100·00	57·00	38·81	2·58	1·09	0·34	0·10	0·08

Distribution of workshops and factories in Rajasthan by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Total	Type of fuel or power used				
		Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	44,215	2,678	4,776	10,798	1,853	24,110
Rural	26,069	193	3,526	5,653	1,196	15,501
Urban	18,146	2,485	1,250	5,145	657	8,609
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	58·96	7·21	73·83	52·35	64·54	64·29
Urban	41·04	92·79	26·17	47·65	35·46	35·71
Total	100·00	6·06	10·80	24·42	4·19	54·53
Rural	100·00	0·74	13·53	21·68	4·59	59·46
Urban	100·00	13·70	6·89	28·35	3·62	47·44

Out of a total of 44,215 workshops and factories in the State, 26,069 or 58·96 per cent are in rural areas and 18,146 or 41·04 per cent in urban areas. The predominant type in the rural areas is the single person workshop which accounts for 58 per cent of all rural units. The predominant type in the urban areas is the 2-5 person workshop which accounts for 46 per cent of all urban workshops. Workshops employing up to 5 persons exhaust just over 97 per cent of all rural establishments, after which there is a steep and sudden drop to 1·79 per cent in the 6-9 persons range. The rural ratio progressively diminishes thereafter with increase in the employment range. A similar pattern prevails in urban establishments, where workshops employing up to 5 persons account for 91 per cent of all units. The 6-9 person size accounts for 5 per cent of all urban units after which there is a steady diminution in the ratios with increasing employment ranges up to 50-99.

This is reflected in another way in the rural-urban ratios of establishments by each size of employment. Thus 65 per cent of all 1-person units and 55 per cent of all 2-5 person units are rural. The rural urban pattern is sharply reversed from 6-9 onwards. Thus 66 per cent of all 6-9 person workshops, 78 per cent of all 10-19 person workshops, 76 per cent of all 20-49 person workshops, 70 per cent of all 50-99 person units and 77 per cent of all 100+ persons workshops are situated in urban areas. It is interesting to note that the ratio of rural units employing 50-99 persons departs from the trend to register a sharp rise to 30 per cent of this more later.

Of the total of 44,215 establishments, 55 per cent use no power, but this proportion slowly diminishes except for the 10-19 person range where it rises a little perhaps owing to the Factories Act to 20 per cent in the 100+ employment range. On the other hand, electricity, which is used in only 6 per cent of all workshops and factories, is very low (3 per cent) in the single person establishment but rapidly rises from 8 per cent in the 2-5 person range to 27 per cent of all units in the 20-49 person range. It forms a sloping plateau in the 50-99 person range with a percentage of 26 but shoots up again to 43·5 per cent in the 100+ range. In the overall view liquid fuel, mostly diesel and some kerosene, is used in 11 per cent of all workshops and factories and is certainly used to a very much greater degree than electricity in the single person (5 per cent) and 2-5 person (17 per cent) ranges. In the higher employment ranges however liquid fuel loses ground to electricity for starting almost even with electricity in the 6-9 person range with 14·3

per cent it ends up with only 15 per cent in 100+. Solid fuel makes a still better showing in Rajasthan than either electricity or liquid fuel. Coal, wood and bagasse accounts for 24·42 per cent of all workshops and factories. In the single person range it accounts for 27·3 per cent of all units, in the 2-5 person range for 21·27 per cent. In the 6-9 person range it is even higher with 23·83 per cent. Thereafter it attains an undulating plateau with 17 per cent in the 10-19 person range at one end and 19·57 per cent in the 100+ range. Solid fuel thus makes a better record in Rajasthan than in most other States. The category of 'Other power', too, on the whole makes a better performance in Rajasthan than most other States.

Electricity employed in single person workshops constitutes a little over 27 per cent of all units using electricity. This is a high enough figure for any State, but is more than doubled to 56·5 per cent in the 2-5 person range, after which there is steep descent to 7·69 per cent in the 6-9 range and a steady decline thereafter to less than 1 per cent in the 50-99 range. It looks up to 1·49 per cent in the 100+ range. Liquid fuel broadly follows a similar pattern to electricity except that the proportion is slightly lower in the single person range (25 per cent), higher in the 2-5 person range (68 per cent) and consistently lower again thereafter. Coal, wood and bagasse start very high with 59 per cent in the single person units, descending to 37 in the 2-5 person range, after which there is a steep and rapid decline. Other power and no power follow a pattern similar to solid fuel.

Of all workshops and factories using electricity only 7·21 per cent are located in rural areas and as much as 93 per cent in urban areas. 74 per cent of all units using liquid fuel, 52 per cent of all units using solid fuel, 65 per cent of all units using 'other power' and 64 per cent of all units using no power are in rural areas. Of every hundred units in rural areas three fourths of one per cent (0·74 per cent) are run by electricity. Solid fuel runs over a fifth (21·68 per cent) of all rural workshops and factories. Of every 100 workshops and factories in urban areas a little under one-seventh (13·70 per cent) are run on electricity, about one-fourteenth (6·89 per cent) are run on liquid fuel, just over 28 per cent run on solid fuel, 3·62 per cent on 'other power' and as much as 47·44 per cent on 'no power' at all.

Uttar Pradesh

The following statement gives the distribution of workshops and factories by size of employment, rural and urban and power used :

Distribution of workshops and factories in Uttar Pradesh by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	240,832	127,133	95,139	11,975	4,171	1,491	554	369
Rural	158,521	93,421	55,604	6,512	1,931	651	307	95
Urban	82,311	33,712	39,535	5,463	2,240	840	247	274
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	65·82	73·48	58·45	54·38	46·30	43·66	55·42	25·75
Urban	34·18	26·52	41·55	45·62	53·70	56·34	44·58	74·25
Total	100·00	52·79	39·51	4·97	1·73	0·62	0·23	0·15
Rural	100·00	58·93	35·08	4·11	1·22	0·41	0·19	0·06
Urban	100·00	40·96	48·03	6·64	2·72	1·02	0·30	0·33

Distribution of workshops and factories in Uttar Pradesh by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	240,832	127,133	95,139	11,975	4,171	1,491	554	369
Electricity	10,538	2,056	5,895	1,148	702	392	124	221
Liquid fuel	12,921	2,996	8,711	583	343	209	35	44
Coal, wood and bagasse	26,482	13,999	10,455	1,225	415	225	85	78
Other power	30,501	19,928	8,915	1,242	305	51	32	8
No power	160,390	88,154	61,163	7,777	2,406	614	258	18
Total	100 00	100 00	100·00	100.00	100·00	100·00	100·00	100 00
Electricity	4·38	1·62	6·20	9·59	16·83	26·29	22·38	59·89
Liquid fuel	5 36	2·36	9·15	4·87	8·22	14·02	6·32	11·92
Coal, wood and bagasse	11·00	11·01	10 99	10·23	9·95	15 09	15·34	21·14
Other power	12 66	15·67	9·37	10·37	7·31	3·42	9 39	2·17
No power	66·60	69·34	64·29	64 94	57·69	41·18	46·57	4·88
Total	100 00	52·79	39 51	4·97	1·73	0 62	0·23	0·15
Electricity	100·00	19·51	55·94	10·89	6·66	3·72	1·18	2·10
Liquid fuel	100·00	23·19	67·42	4·51	2·65	1·62	0·27	0·34
Coal, wood and bagasse	100·00	52·86	39·48	4·63	1·57	0·85	0·32	0·29
Other power	100·00	65·33	29·23	4·07	1·00	0·17	0·17	0·03
No power	100·00	54·96	38 14	4·85	1·50	0·38	0·16	0·01

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	240,832	10,538	12,921	26,482	30,501	160,390
Rural	158,521	2,414	10,185	15,637	23,962	106,323
Urban	82,311	8,124	2,736	10,845	6,539	54,067
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	65·82	22·91	78·83	59·05	78·56	66·29
Urban	34·18	77·09	21·17	40·95	21·44	33·71
Total	100·00	4·38	5·36	11·00	12·66	66·60
Rural	100·00	1·52	6·43	9·86	15·12	67·07
Urban	100·00	9 87	3·32	13 18	7 94	65·69

The general picture bears some similarity to Bihar's, with this difference that the urban areas claim more of workshops and factories in the higher employment brackets above 6-9 except for a dip in the employment group 50-99 when the proportion descends to 44·6 per cent of the total. The vast majority of rural establishments are in the unorganised sector employing 1-5 persons (58·93+35·08=94·01 per cent) where the use of electricity, too, is low. Even in urban areas the unorganised sector is almost as large (40·96+48·03 or 89 per cent). There is a very steep descent from the 1-5 person category to the 6-9 person bracket in both rural and urban areas, although the urban ratio is more than half as much again as the rural. This is followed by a more graduated downward slope until in the 100+ bracket rural establishments constitute no more than 0·06 and the urban ones no more than 0·33 per cent of all establishments in their respective zones.

The use of electricity in such a context cannot obviously be large, and, in fact, the proportions of workshops using electricity are quite low (1·6 per cent) in 1-person and 2-5 person (6·2 per cent) establishments. Liquid fuel is much more used in rural areas than electricity, although its proportions are not large either. The proportion of urban units using electricity of all urban workshops and factories is only 9·87 (compare Bihar's 9·6) while the use of liquid fuel is 6·4 per cent in rural and 3·3 in urban.

West Bengal

The following statement gives the distribution of industrial establishments in West Bengal by size class of employment in rural and urban areas and by type of fuel used :

Distribution of workshops and factories in West Bengal by size of employment, rural and urban and by type of fuel or power used

	Size of employment								
Total Rural Urban	Total	1	Small 2-5	Medium 6-9	Big workshops small-factories 10-19	Medium-factories 20-49	Large 50-99	Very large 100+	Not Stated
1	2	3	4	5	6	7	8	9	10
Total	157,021	33,750	60,002	10,019	6,130	2,715	950	1,010	42,445
Rural	92,670	25,009	31,339	3,008	1,799	823	266	273	30,153
Urban	64,351	8,741	28,663	7,011	4,331	1,892	684	737	12,292
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	59·02	74·10	52·23	30·02	29·35	30·31	28·00	27·03	71·04
Urban	40·98	25·90	47·77	69·98	70·65	69·69	72·00	72·97	28·96
Total	100·00	21·50	38·21	6·38	3·90	1·73	0·61	0·64	27·03
Rural	100·00	26·99	33·82	3·24	1·94	0·89	0·29	0·29	32·54
Urban	100·00	13·58	44·54	10·90	6·73	2·94	1·06	1·15	19·10

Distribution of workshops and factories in West Bengal by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	157,021	33,750	60,002	10,019	6,130	2,715	950	1,010	42,445
Electricity	15,777	1,177	6,178	2,637	2,110	1,243	484	746	1,202
Liquid fuel	7,150	1,876	3,452	170	145	159	95	132	1,121
Coal, wood and bagasse	533	12	110	49	68	117	88	40	49
Other power	356	23	148	64	45	35	13	7	21
No power	133,205	30,662	50,114	7,099	3,762	1,161	270	85	40,052
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	10·05	3·49	10·30	26·32	34·42	45·78	50·95	73·86	2·83
Liquid fuel	4·55	5·56	5·75	1·70	2·37	5·86	10·00	13·07	2·64
Coal, wood and bagasse	0·34	0·03	0·18	0·49	1·11	4·31	9·26	3·96	0·12
Other power	0·23	0·07	0·25	0·64	0·73	1·29	1·37	0·69	0·05
No power	84·83	90·85	83·52	70·85	61·37	42·76	28·42	8·42	94·36
Total	100·00	21·50	38·21	6·38	3·90	1·73	0·61	0·64	27·03
Electricity	100·00	7·46	39·16	16·71	13·37	7·88	3·07	4·73	7·62
Liquid fuel	100·00	26·24	48·28	2·38	2·03	2·22	1·33	1·84	15·68
Coal, wood and bagasse	100·00	2·25	20·64	9·19	12·76	21·95	16·51	7·51	9·19
Other power	100·00	6·46	41·57	17·98	12·64	9·83	3·65	1·97	5·90
No power	100·00	23·02	37·62	5·33	2·83	0·87	0·20	0·06	30·07

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	157,021	15,777	7,150	533	356	133,205
Rural	92,670	930	6,745	238	33	84,724
Urban	64,351	14,847	405	295	323	48,481
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	59·02	5·89	94·34	44·65	9·27	63·60
Urban	40·98	94·11	5·66	55·35	90·73	36·40
Total	100·00	10·05	4·55	0·34	0·23	84·83
Rural	100·00	1·00	7·28	0·26	0·04	91·42
Urban	100·00	23·07	0·63	0·46	0·50	75·34

It seems very likely, to judge from the absolute figures and ratios of 'not stated' in the rural-urban distribution as well as distribution of power used in each size class, that the 'not stated' category should have gone overwhelmingly, if not entirely, to the single person establishment category. If such an allocation were made the distribution would conform to what has been observed in several other States. If at all, a small share should be allocated to the 2-5 person category.

With the reallocation made as suggested, single-person and 2-5 person establishments would be found to be predominant in rural areas (about 74

per cent and 52 per cent respectively). Rural establishments employing a limit of 5 persons would make about 64 per cent of establishments and it is therefore significant that the rural-urban ratio (64-36) observed in establishments employing 1-5 persons is nearly reversed in the next higher employment bracket of 6-9 (30-70). It is also remarkable that this level of 30/70 rural-urban is maintained within a narrow range in all upper employment brackets.

It is also worth noting that the ratio of electricity use should be as low as about 3 per cent (after reallocation of 'not stated' category) in single person units. This is partly explained by the fact that rural electrification is a very recent development and until recently most district towns had their own thermal plants which naturally dictated a high tariff and imposed restrictions on load. Even in 1964 not all places in West Bengal have been connected by grid and the record of rural electrification is still quite low despite comparatively early and massive power development in Calcutta. The potential for hydro-electric power is limited in the State on account of the flat plains and the seasonality of rainfall.

It is noteworthy that a higher proportion (about 4 per cent) of 1-person units use liquid fuel than electricity (about 3). Thereafter in the use of electricity in the upper employment brackets West Bengal follows more the pattern of the Southern States than of, say, Gujarat or Punjab, because the proportion of electricity use does not rise above 51 per cent even in the 50-99 person group. The use of oil falls in the brackets, 10-19, but rises steadily from 6 per cent in 20–49 to 13 per cent in 100+. It is not quite clear whether this rising ratio is due more to insistence on the type of fuel on which the prime mover is run for generating electricity than to the actual use of liquid fuel in running machinery. Similarly solid fuel improves with each higher employment bracket until it reaches a peak with 9 per cent at 50-99. It then falls to 4 per cent in 100+. This may also be due in part to solid fuel being used in prime movers. But the rural-urban ratio table of fuels leaves little doubt in the mind that electricity and liquid fuel are mutually exclusive, the rural-urban ratios being exactly the reverse of each other in electricity and liquid fuel. It is not clear why the urban ratio of other power should be so high.

Andaman and Nicobar Islands

The following statement gives the distribution of workshops and factories by range of employment, rural and urban and power used :

Distribution of workshops and factories in Andaman and Nicobar Islands by size of employment, rural and urban and by type of fuel or power used.

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	66	3	27	7	11	8	8	2
Rural	38	2	24	1	5	4	2	—
Urban	28	1	3	6	6	4	6	2
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	57·58	66·67	88·89	14·29	45·45	50·00	25·00	—
Urban	42·42	33·33	11·11	85·71	54·55	50·00	75·00	100·00
Total	100·00	4·54	40·91	10·61	16·67	12·12	12·12	3·03
Rural	100·00	5·26	63·16	2·63	13·16	10·53	5·26	..
Urban	100·00	3·57	10·71	21·43	21·43	14·29	21·43	7·14

Distribution of workshops and factories in Andaman and Nicobar Islands by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	66	3	27	7	11	8	8	2
Electricity	11	..	..	5	2	1	1	2
Liquid fuel	12	2	7	..	1	..	2	..
Coal, wood and bagasse	22	..	16	2	2	1	1	..
Other power	..	..	..	..	..	..	..	..
No power	21	1	4	..	6	6	4	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	16·67	..	..	71·43	18·18	12·50	12·50	100·00
Liquid fuel	18·18	66·67	25·93	..	9·09	..	25·00	100·00
Coal, wood and bagasse	33·33	..	59·26	28·57	18·18	12·50	12·50	..
Other power	..	..	..	..	..	..	..	..
No power	31·82	33·33	14·81	..	54·55	75·00	50·00	..
Total	100·00	4·54	40·91	10·61	16·67	12·12	12·12	3·03
Electricity	100·00	..	..	45·46	18·18	9·09	9·09	18·18
Liquid fuel	100·00	16·67	58·33	..	8·33	..	16·67	..
Coal, wood and bagasse	100·00	..	72·73	9·09	9·09	4·55	4·54	..
Other power	..	..	..	..	..	..	..	..
No power	100·00	4·76	19·05	..	28·57	28·57	19·05	..

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	66	11	12	22	..	21
Rural	38	1	11	15	..	11
Urban	28	10	1	7	..	10
Total	100·00	100·00	100·00	100·00	..	100·00
Rural	57·58	9·09	91·67	68·18	..	52·38
Urban	42·42	90·91	8·33	31·82	..	47·62
Total	100·00	16·67	18·18	33·33	..	31·82
Rural	100·00	2·63	28·95	39·47	..	28·95
Urban	100·00	35·72	3·57	25·00	..	35·71

The predominant type in the rural areas is the 2-5 person unorganised establishment. But in the urban areas, which is entirely Port Blair, the predominant employment ranges are 6-9, 10-19 and 50-99. There are 2 factories employing more than 100 persons. Both are saw mills.

Electricity is used only in workshops and factories employing more than 5 persons. There is only one factory run on electricity in rural areas and 10 in urban areas. By contrast the number of workshops using liquid fuel is 11 in rural areas and 1 in urban areas. Solid fuel is used in as many as 15 workshops in rural and 7 in urban areas.

Delhi

The following statement gives the distribution of industrial establishments classified by size classes of employment and type of power used by rural and urban areas :

Distribution of workshops and factories in Delhi by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	8,414	872	4,027	1,556	941	633	210	175
Rural	231	32	99	12	9	14	20	45
Urban	8,183	840	3,928	1,544	932	619	190	130
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	2·75	3·67	2·46	0 77	0.96	2·21	9.52	25.71
Urban	97·25	96·33	97·54	99·23	99·04	97·79	90·48	74·29
Total	100·00	10 36	47·86	18·49	11·19	7·52	2·50	2·08
Rural	100·00	13 85	42·86	5·19	3·90	6·06	8·66	19·48
Urban	100·00	10·27	48·00	18·87	11·39	7·56	2·32	1·59

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	**8,414**	**872**	**4,027**	**1,556**	**941**	**633**	**210**	**175**
Electricity ..	4,393	266	1,862	938	624	455	142	106
Liquid fuel ..	293	37	159	51	22	16	5	3
Coal, wood and bagasse ..	1,336	193	705	195	95	61	36	51
Other power ..	214	23	102	49	19	13	1	7
No power ..	2,178	353	1,199	323	181	88	26	8
Total	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Electricity ..	52·21	30·51	46·24	60·28	66·31	71·88	67·62	60·57
Liquid fuel ..	3·48	4·24	3·95	3·28	2·34	2·53	2·38	1·72
Coal, wood and bagasse ..	15·88	22·13	17·51	12·53	10·10	9·64	17·14	29·14
Other power ..	2·54	2·64	2·53	3·15	2·02	2·05	0·48	4·00
No power ..	25·89	40·48	29·77	20·76	19·23	13·90	12·38	4·57
Total	**100·00**	**10·36**	**47·86**	**18·49**	**11·19**	**7·52**	**2·50**	**2·08**
Electricity ..	100·00	6·06	42·39	21·35	14·20	10·36	3·23	2·41
Liquid fuel ..	100·00	12·63	54·27	17·40	7·51	5·46	1·71	1·02
Coal, wood and bagasse ..	100·00	14·45	52·77	14·59	7·11	4·57	2·69	3·82
Other power ..	100·00	10·75	47·66	22·90	8·88	6·07	0·47	3·27
No power ..	100·00	16·21	55·05	14·83	8·31	4·04	1·19	0·37

Distribution of workshops and factories in Delhi by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	8,414	4,393	293	1,336	214	2,178
Rural	231	20	67	107	2	35
Urban	8,183	4,373	226	1,229	212	2,143
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	2·75	0·46	22·87	8·01	0·93	1·61
Urban	97·25	99·54	77·13	91·99	99·07	98·39
Total	100·00	52·21	3·48	15·88	2·54	25·89
Rural	100·00	8·66	29·00	46·32	0·87	15·15
Urban	100·00	53·44	2·76	15·02	2·59	26·19

The first thing to notice is the concentration of industrial establishments in the urban areas and the substantial proportion (42 per cent) of workshops and factories employing more than 5 persons, that is, in the organised sector. The second important point is the high proportion (52.21) of workshops and factories employing electricity, even in the 1 person (30·51 per cent) and 2-5 person (46·24 per cent) units. This is indicative of the trend towards modernization of technique, tools and scale even in the unorganised sector. The organised sector employing more than 5 persons is therefore the main strength of Delhi and each employment bracket in this sector uses electricity in more than 60 per cent of all establishments. Again, among those establishments which employ electricity, more than 51 per cent of the total number of units employ more than 5 persons each. The use of solid fuel is substantial while the use of liquid fuel is not negligible either. The third distinguishing feature of Delhi is the pre-eminence enjoyed by establishments producing metal goods machinery, equipment, chemicals and goods which consume processed materials. Delhi thus, is indisputably set on modern organised industry and the use of modern techniques, tools and power even in the unorganised sector, catering to modern needs. This is reflected in the distribution of industrial establishments under major groups which is as follows :

The major groups of industries by descending order of numerical strength of establishments

I.S.I.C. Major Group	Description	Number of factories and workshops	Percentage to total
	Total	**8,414**	**100·0**
36	Basic metals and their products except machinery and transport equipment	1,600	19·0
39	Miscellaneous manufacturing industries	1,015	12·1
30	Printing and publishing	865	10·3
20	Foodstuffs	843	10·0
38	Transport equipment	760	9·0
37	Machinery and electrical equipment	575	6·8
28	Wood and wood products	523	6·2
27	Miscellaneous textiles	494	5·9
33	Chemicals and chemical products	431	5·1
34-35	Non-metallic mineral products	387	4·6
31	Leather and leather products	383	4·6
23	Cotton textiles	216	2·6
29	Paper and paper products	117	1·4
21	Beverages	107	1·3
32	Rubber, petroleum and coal products	52	0·6
25	Textile wool	17	0·2
26	Textile silk	15	0·2
22	Tobacco products	9	0·1
24	Textile jute	4	N
04	Livestock and hunting	1	N

This is a very different distribution to the general experience of other States and shows the pre-eminence of major groups dependent on modern technology.

The distribution of workshops and factories by zones is given in the following statement :

Distribution of workshops and factories by size of employment

Zone	Total number of factories	Percentage employing						
		1 person	2-5 persons	6-9 persons	10-19 persons	20-49 persons	50-99 persons	100+ persons
I Shahdara ..	(404)100	13·9	41·6	16·6	8·6	12·6	3·2	3·5
II City, Sadar, Paharganj ..	(5,094)100	10·3	49·2	20·7	11·3	6·2	2·1	0·2
III Karol Bagh, Patel Nagar ..	(1,009)100	8·8	48·8	15·0	12·6	8·2	3·3	3·3
IV Civil Lines, Subzimandi ..	(726)100	7·6	52·2	19·8	10·7	6·5	1·7	1·5
V Transferred Area	(266)100	13·5	44·7	12·8	11 0	3·4	1·1	13·5
VI South Delhi ..	(248)100	19·0	41·5	10·9	8·0	15·0	3·2	2·4
VII West Delhi ..	(186)100	10·2	40·9	17·2	15·6	12·4	2·7	1·0

Distribution of workshops and factories by type of fuel or power used

Zone	Total	Electricity	Liquid fuel	Solid fuel	Other power	No power
I Shahdara	404	148	25	85	32	114 (28·2)
II City, Sadar, Paharganj ..	5,094	2,722	91	819	126	1,336 (26·2)
III Karol Bagh, Patel Nagar	1,009	560	31	95	29	294 (29·12)
IV Civil Lines, Subzimandi	726	431	27	99	8	161 (22·2)
V Transferred Area ..	266	142	6	38	9	71 (26·7)
VI South Delhi ..	248	111	21	48	5	63 (25·4)
VII West Delhi ..	186	91	21	22	2	50 (26·9)

The above statement shows that the concentration of medium and large factories has occurred mainly in Transferred Area, Karol Bagh, Patel Nagar, Shahdara and West Delhi. The concentration of small and medium factories has occurred mainly in City, Sadar Bazar and Paharganj, Civil Lines, Subzimandi, South Delhi, Karol Bagh, Patel Nagar and West Delhi.

The following statement gives an idea of the geographical concentration of industries of various kinds :

Geographical concentration of the majority of industrial establishments in any minor group

1	Walled area of city	205, 209, 272, 273, 279, 287, 289, 301, 302, 303, 335, 360, 368, 372, 376, 379, 393
2	Paharganj	280, 281
3	Sadar Bazar ..	235, 237, 339
4	Walled area of city : Paharganj and Sadar Bazar	200, 233, 383, 399
5	Walled area of city : Paharganj	369, 384, 388
6	Walled area of city : Sadar Bazar	239, 271, 336, 357

The following statement of the strength of selected minor groups of ISIC in Delhi will render an account of the industrial composition of the Union Territory's workshops and factories :

Workshops and factories classified by important minor groups of ISIC

I.S.I.C. Major Group/ Minor Group	Description	Number of workshops and factories
36	Basic metals and their products except machinery and transport equipment	1,600
369	Sundry hardwares	509
360	Manufacture of iron and steel	413
368	Enamelling, galvanising, plating polishing etc.	272
367	Manufacture of metal products such as tin can	177
365	Brass and bell metal products	117
39	Miscellaneous manufacturing industries	1,015
399	Manufacture and repair of goods n.e.c.	503
393	Jewellery	298
390	Optical industries	69
30	Printing and publishing	865
301	Printing and publishing of books	369
302	All other types of printing	276
303	All types of binding, stitching etc.	167
20	Foodstuffs	843
200	Milling of grain	404
209	Confectionery	218
205	Bakery products	112
38	Transport equipment	760
382	Repairing and servicing of motor vehicles	298
388	Repairing of bicycles etc.	163
385	Manufacture of bicycles and bicycle parts and accessories	139
383	Manufacture of motor vehicles, parts and accessories	115
37	Machiner y and electrical equipment	575
379	Miscellaneous electric machinery and apparatus	167
378	Radio and electronic equipment	105
372	Machine tools	102
376	Insulated wires and cables	48
374	Heavy electrical machinery	43
28	Wood and wood products	523
281	Wooden furniture and fixtures	223
289	Miscellaneous wood products	97
280	Sawing and planing of wood	62
27	Miscellaneous textiles	494
273	Textile garments	237
271	Hosiery	150
33	Chemicals and chemical products	431
336	Soap and other cleaning compounds	128
337	Turpentine, synthetics etc.	113
331	Dyes, paints, colours and varnishes	54
34-35	Non-metallic mineral products	387
340	Bricks and tiles	106
350	Earthenware and earthen pottery	88
357	Glass and glass products	58
31	Leather and leather products	383
311	Shoes and leather footwear	244
313	Leather products	99
23	Cotton textiles	216
239	Cotton cordage, rope and twine	55
235	Cotton handlooms	44
233	Cotton dyeing, bleaching	40
237	Printing of cotton textiles	26
232	Cotton spinning and weaving in mills	17

The following statement shows the distribution by size of employment of workshops and factories under the more important major groups of industries :

Distribution of workshops and factories in the more important major groups of industries by size of employment

	Total	1 person	2-5	6-9	10-19	20-49	50-99	100+
36	1,600	116	745	347	177	126	48	41
Percentage ..	100	7·3	46·6	21·7	11·0	7·8	3·0	2·6
39	1,015	166	479	153	108	64	25	20
Percentage ..	100	16·3	47·2	15·1	10·6	6·3	2·5	2·0
20	843	119	537	88	47	35	10	7
Percentage ..	100	14·1	63·7	10·4	5·6	4·2	1·2	0·8
38	760	99	366	112	78	75	19	11
Percentage ..	100	13·0	48·2	14·7	10·3	9·9	2·5	1·4
37	575	50	198	124	81	80	21	21
Percentage ..	100	8·7	34·3	21·6	14·0	14·0	3·7	3·7
28	523	63	288	84	54	26	8	..
Percentage ..	100	12·0	55·1	16·1	10·3	5·0	1·5	..
27	494	58	250	96	54	28	5	3
Percentage ..	100	11·7	50·6	19·4	11·0	5·7	1·0	0·6
33	431	29	209	104	52	24	4	9
Percentage ..	100	6·7	48·5	24·1	12·1	5·6	0·9	2·1
34-35	387	21	156	78	31	26	26	49
Percentage ..	100	5·4	40·3	20·2	8·0	6·7	6·7	12·7
31	383	63	207	52	27	28	4	2
Percentage ..	100	16·4	54·0	13·6	7·1	7·3	1·1	0·5
23	216	20	88	41	45	17	3	2
Percentage ..	100	9·3	40·7	19·0	20·8	7·9	1·4	0·9

Himachal Pradesh

The following statement gives the distribution of workshops and factories in Himachal Pradesh by employment ranges, rural and urban and by type of power used :

Distribution of workshops and factories in Himachal Pradesh by size of employment, rural and urban and by type of fuel or power used

	Size of employment							
Total Rural Urban	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	38,251	34,083	4,011	99	27	20	3	8
Rural	36,342	32,694	3,540	84	14	8	1	1
Urban	1,909	1,389	471	15	13	12	2	7
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	95·01	95·92	88·26	84·85	51·85	40·00	33·33	12·50
Urban	4·99	4·08	11·74	15·15	48·15	60·00	66·67	87·50
Total	100·00	89·10	10·49	0·26	0·07	0·05	0·01	0·02
Rural	100·00	89·96	9·74	0·23	0·04	0·02	0·01	N
Urban	100·00	72·76	24·67	0·79	0·68	0·63	0·10	0·37

Distribution of workshops and factories in Himachal Pradesh by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment						
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	38,251	34,083	4,011	99	27	20	3	8
Electricity	107	26	43	7	7	14	2	8
Liquid fuel	35	17	12	5	1	..	..	..
Coal, wood and bagasse	1	..	..	1	..	..	..	..
Other power	17,216	16,931	270	15	..	..	..	..
No power	20,892	17,109	3,686	71	19	6	1	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	0·28	0·08	1·07	7·07	25·93	70·00	66·67	100·00
Liquid fuel	0·09	0·05	0·30	5·05	3·70	..	..	..
Coal, wood and bagasse	N	..	..	1·01	..	..	..	..
Other power	45·01	49·67	6·73	15·15	..	..	..	..
No power	54·62	50·20	91·90	71·72	70·37	30·00	33·33	..
Total	100·00	89·10	10·49	0·26	0·07	0·05	0·01	0·02
Electricity	100·00	24·30	40·19	6·54	6·54	13·08	1·87	7·48
Liquid fuel	100·00	48·57	34·29	14·28	2·86	..	..	..
Coal, Wood and bagasse	100·00	..	..	100·00	..	..	..	..
Other power	100·00	98·34	1·57	0·09	..	..	..	..
No power	100·00	81·89	17·64	0·34	0·09	0·03	0·01	..

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	38,251	107	35	1	17,216	20,892
Rural	36,342	52	32	1	17,066	19,191
Urban	1,909	55	3	..	150	1,701
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	95·01	48·60	91·43	100·00	99·13	91·86
Urban	4·99	51·40	8·57	..	0·87	8·14
Total	100·00	0·28	0·09	N	45·01	54·62
Rural	100·00	0·14	0·09	N	46·96	52·81
Urban	100·00	2·88	0·16	..	7·86	89·10

The most striking thing about Himachal Pradesh is the overwhelming concentration of workshops and factories in rural areas and the predominance of the small, unorganised sector employing 1-5 persons not only in rural areas, where the latter proportion is as much as 89·96+9·74=99·70 per cent but also in urban areas where the ratio is as much as 97·43 per cent. The second thing to note is the very minor position enjoyed by electricity which serves no more than 0·28 per cent of all workshops and

factories although it is heartening that electricity is much in evidence in workshops employing more than 20 persons. Other power, viz., water and wind mills and animal power still plays a dominant role in the small unorganised sector.

The following are the important industries of Himachal Pradesh both in respect of numbers of workshops and factories and number of persons employed in each :

Rank	I.S.I.C. Minor Group	Description	Total establishments	Percentage of all establishments	Estimated persons employed	Percentage of all employed	Rank of estimated persons employed
1	200	Milling of grain	16,874	44·1	17,333	36·7	1
2	273	Textile garments	4,118	10·8	4,897	10·4	4
3	255	Wool weaving in handlooms	4,106	10·7	5,738	12·1	2
4	311	Shoes and leather footwear	4,003	10·5	5,144	10·9	3
5	369	Sundry hardwares	2,829	7·4	3,961	8·4	5
6	282	Structural wooden goods	2,197	5·7	2,581	5·5	6
7	288	Bamboo, leaves, etc.	1,518	3·4	1,967	4·2	7
8	350	Earthenware and earthen pottery	880	2·3	1,261	2·7	8
9	393	Jewellery	678	1·8	845	1·8	9
10	207	Edible fats and oils	399	1·0	440	0·9	10

The above list accords well with the preponderance of the small unorganised sector in workshops and factories. The greatest variety of industries occurs in Mandi, next in Mahasu, then Sirmur, followed respectively by Bilaspur, Chamba and Kinnaur.

A few industries have local concentrations of establishments according to the availability of raw material or labour. These concentrations are mainly noticed in respect of the following industries :

I.S.I.C. Minor Group	Industry	Districts
200	Milling of grain	Mandi and Mahasu
255	Wool weaving in handlooms	Chamba (A factory called Travati Industry is located in Chamba town)
311	Shoes and leather footwear	Mandi
273	Textile garments	Mahasu
369	Sundry hardwares	Mahasu, Sirmur has a very large foundry in Nahan town (Nahan Foundry Ltd.).
282	Structural wooden goods	Mahasu and Mandi
288	Bamboo, leaves, cane, etc.	Mandi and Mahasu
350	Earthenware and earthen pottery	Mandi
210	Distilled spirits, wines, etc.	Mahasu and Sirmur. There are 3 registered factories in Solan town and 1 in rural Mahasu. There is one distillery in Nahan of Sirmur. The 5 distilleries employ about 1,050 persons.
393	Jewellery	Mahasu, Mandi

The following is an account of the 55 important factories in Himachal Pradesh :

The important factories of Himachal Pradesh and their location

I.S.I.C. Minor Group	Description	Number of factories	Total number of persons engaged	Location
210	Distilleries	5	1,034	Mahasu (Solan) and Sirmur (Nahan).
287	Boxes and packing cases	2	184	Solan mainly for use of breweries.
337	Turpentine and resin	2	122	Sirmur (Himachal Resin and Turpentine Factory, Nahan), Mahasu (Krishna Resin and Turpentine Factory, Nahan).
372	Small machine tools and machine parts	3	165	Mahasu (Solan).
391	Scientific, medical and surgical instruments and equipment and supplies	1	35	Mahasu (Solan).
340	Structural clay products such as bricks and tiles	2	46	Sirmur (Rainka and Paonta tahsils).
201	Sugar and syrup from sugarcane in mills	1	20	Sirmur (Jesico Co-operative Sugar Factory, Paonta).
384	Repair and service of motor vehicles	16	323	Six belong to State Transport (Dhalli, Taradevi, Mandi, Nahan, Bilaspur, Ranikhet of Chamba).
217	Processing of tea in factories	3	50	Mandi (Jogindernagar tahsil).
335	Medicines	6	49	Important Government factory called H. P. Govt. Ayurvedic Pharmacy, Jogindernagar, Mandi.
362	Armaments	14	101	Mandi.

The following is an account of the types of industry using electricity :

The various types of industries using electricity

I.S.I.C. Minor Group	Description	Number of establishments using electricity	Estimated number of persons employed
200	Milling of grain	46	96
201	Sugar mills	1	20
207	Edible fats and oils	6	11
210	Distilleries	4	1,030
214	Aerated and mineral water	1	10
217	Tea in factories	1	48
230	Cotton ginning, carding and pressing	1	3
251	Wool cleaning and processing	1	2
270	Carpets	1	5
271	Hosiery and other knitted fabrics	2	5
280	Sawing and planing of wood	10	41
281	Wooden furniture and fixtures	1	9
284	Wooden products, toys	1	7
287	Boxes and packing cases	1	182
302	Miscellaneous printing	3	9
303	All types of binding, etc.	1	5
335	Medicines	1	43
337	Turpentine and resin	2	122
362	Armaments	3	88
365	Brass and bell metal	4	36
369	Sundry hardwares	3	478
372	Small machine tools and machine parts	3	165
384	Motor servicing	9	306
391	Scientific, medical and surgical instruments	1	35

Laccadive, Minicoy and Amindivi Islands

Three workshops were returned, 2 as single person and 1 as 2-5 person units. No power is used in any.

Manipur

The following statement gives the distribution of workshops and factories in Manipur by size of employment, rural and urban and power used :

Distribution of workshops and factories in Manipur by size of employment, rural and urban and by type of fuel or power used

	Size of employment							
Total Rural Urban	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	13,412	10,221	2,912	195	59	19	5	1
Rural	10,687	7,663	2,825	148	39	7	4	1
Urban	2,725	2,558	87	47	20	12	1	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	79·68	74·97	97·01	75·90	66·10	36·84	80·00	100·00
Urban	20·32	25·03	2·99	24·10	33·90	63·16	20·00	..
Total	100·00	76·21	21·71	1·45	0·44	0·14	0·04	0·01
Rural	100·00	71·70	26·43	1·38	0·37	0·07	0·04	0·01
Urban	100·00	93·87	3·19	1·73	0·73	0·44	0·04	..

	Size of employment							
Type of fuel or powef used	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total ..	13,412	10,221	2,912	195	59	19	5	1
Electricity ..	39	..	12	7	8	11	1	..
Liquid fuel ..	12	..	5	7	..	..	..	..
Coal, wood and bagasse ..	275	96	128	38	10	1	1	1
Other power ..	22	6	13	3	..	..	..	..
No power ..	13,064	10,119	2,754	140	41	7	3	..
Total ..	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity ..	0·29	..	0·41	3·59	13·56	57·90	20·00	..
Liquid fuel ..	0·09	..	0·17	3·59	..	..	..	..
Coal, wood and bagasse ..	2·05	0·94	4·40	19·49	16·95	5·26	20·00	100·00
Other power ..	0·16	0·06	0·45	1·54	..	..	..	..
No power ..	97·41	99·00	94·57	71·79	69·49	36·84	60·00	..
Total ..	100·00	76·21	21·71	1·45	0·44	0·14	0·04	0·01
Electricity ..	100·00	..	30·77	17·95	20·51	28·21	2·56	..
Liquid fuel ..	100·00	..	41·67	58·33	..	..	..	..
Coal, wood and bagasse ..	100·00	34·91	46·55	13·82	3·64	0·36	0·36	0·36
Other power ..	100·00	27·27	59·09	13·64	..	..	..	..
No power ..	100·00	77·46	21·08	1·07	0·32	0·05	0·02	..

Distribution of workshops and factories in Manipur by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	13,412	39	12	275	22	13,064
Rural	10,687	..	8	198	20	10,461
Urban	2,725	39	4	77	2	2,603
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	79·68	..	66·67	72·00	90·91	80·08
Urban	20·32	100·00	33·33	28·00	9·09	19·92
Total	100·00	0·29	0·09	2·05	0·16	97·41
Rural	100·00	..	0·07	1·85	0·19	97·89
Urban	100·00	1·43	0·15	2·83	0·07	95·52

The single person establishment both in rural and urban areas is by far and away the predominant type followed a long way behind in rural areas and very much longer behind in urban areas by the 2-5 person establishment. Except for the 20-49 person size groups the rural areas have more workshops and factories of every other size group than urban areas.

The use of electricity is very small. Electricity is not used at all in 1 person units and only to a very small extent in 2-5 person (0·41 per cent) and 6-9 person workshops (3·59 per cent). It is in greater evidence only in units employing 10 to 99 persons. But in the solitary unit employing more than 100 persons solid fuel is used. Further, the use of electricity is limited only to urban areas. No power is in overwhelming majority.

The use of liquid fuel is even less than that of electricity, being limited to 5 units in the 2-5 person class and 7 units in the 6-9 person class.

The following are the numerically important industries in Manipur :

Industries arranged in descending order of number of establishments
Manipur

Rank	I.S.I.C. Minor Group	Description	Number of units	Percentage to total units	Estimated number of persons employed	Percentage to total units
1	2	3	4	5	6	7
1	235	Cotton weaving in handlooms ..	12,649	94.3	20,273	85 (1)
2	281	Wooden furniture and fixtures ..	146	1·1	49·6	2·1 (2)
3	273	Textile garments	142	1·1	456	1·9 (3)
4	394	Musical instruments	101	0·8		
5	388	Repairing of bicycles	84	0·6	307	1·3 (5)
6	360	Smelting, refining of iron and steel ..	37	0·3	138	0·6 (11)
7	200	Milling of grain	34	0·3	187	0·8 (8)
8	384	Repairing and servicing of motor vehicles	30	0·2	340	1·4 (4)
9	207	Edible fats and oils	25	0·2		
10	365	Brass and bell metal products ..	22	0·2		
11	364	Iron and steel furniture	18	0·4		
		Total ..	13,268			

Jewellery (minor group 393) keeps 285 persons engaged, while bricks and tiles (340) employs 239 persons, printing and publishing of books (301) employs 168 persons and printing and publishing of newspapers and periodicals employs 157 persons. The emergence of the printing industry in Manipur is indicative of the rapid progress made in education, literacy and the desire to keep abreast of the world.

The following industries use electricity in the urban areas :

I.S.I.C. Minor Group	Description
200	Milling of grain
300	Printing and publishing of newspapers and periodicals (all units on electricity)
301	Printing and publishing of books
320	Repair of tyres and tubes
372	Machine tools
384	Repair and servicing of motor vehicles
399	Miscellaneous

The Superintendent of Manipur gives the following regional distribution of workshops and factories and persons employed :

Place or area	Workshops and factories	Estimate of persons employed
Imphal Town	*2,725*	*4,003*
Imphal East	1,804	2,495
Imphal West	8,779	12,554
Thoubal	291	950
Bishenpur	2,276	7,185
Ukhrul	12	85
Churachandpur	112	112
Tamenglong	61	322
Tengnoupal	14	75
Jiribam	4	24
Mao Maram and Sadar Hills	59	64
Total	13,412	23,866

The Superintendent observes that cotton weaving in handlooms is not only the largest single industry in Manipur but also assumes a position of overriding importance in relation to other industries.

Tripura

The following statement gives the distribution of workshops and factories by size of employment, rural and urban and power used :

Distribution of workshops and factories in Tripura by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	2,077	943	914	103	63	30	18	6
Rural	1,232	548	537	65	37	23	16	6
Urban	845	395	377	38	26	7	2	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	59·32	58·11	58·75	63·11	58·73	76·67	88·89	100·00
Urban	40·68	41·89	41·25	36·89	41·27	23·33	11·11	..
Total	100·00	45·40	44·01	4·96	3·03	1·44	0·87	0·29
Rural	100·00	44·48	43·59	5·27	3·00	1·87	1·30	0·49
Urban	100·00	46·74	44·61	4·50	3·08	0·83	0·24	..

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	2,077	943	914	103	63	30	18	6
Electricity	61	15	26	12	5	2	1	..
Liquid fuel	166	47	62	5	20	15	14	3
Coal, wood and bagasse	568	277	257	19	8	6	..	1
Other power	150	37	107	6	..	..	..	..
No power	1,132	567	462	61	30	7	3	2
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	2·94	1·59	2·84	11·65	7·94	6·67	5·55	..
Liquid fuel	7·99	4·98	6·78	4·85	31·74	50·00	77·78	50·00
Coal, wood and bagasse	27·35	29·38	28·12	18·45	12·70	20·00	..	16·67
Other power	7·22	3·92	11·71	5·83	..	..	..	..
No power	54·50	60·13	50·55	59·22	47·62	23·33	16·67	33·33
Total	100·00	45·40	44·01	4·96	3·03	1·44	0·87	0·29
Electricity	100·00	24·59	42·62	19·67	8·20	3·28	1·64	..
Liquid fuel	100·00	28·31	37·35	3·01	12·05	9·04	8·43	1·81
Coal, wood and bagasse	100·00	48·77	45·25	3·34	1·41	1·06	..	0·17
Other power	100·00	24·67	71·33	4·00	..	..	..	..
No power	100·00	50·09	40·81	5·39	2·65	0·62	0·26	0·18

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	2,077	61	166	568	150	1,132
Rural	1,232	3	136	331	150	612
Urban	845	58	30	237	..	520
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	59·32	4·92	81·93	58·27	100·00	54·06
Urban	40·68	95·08	18·07	41·73	..	45·94
Total	100·00	2·94	7·99	27·35	7·22	54·50
Rural	100·00	0·24	11·04	26·87	12·17	49·68
Urban	100·00	6·86	3·55	28·05	..	61·54

The single person establishment is the largest sector closely followed both in rural and urban areas by the 2-5 person workshop. But considering Tripura's general situation, the number of factories in the other employment groups, 6-9, 10-19, 20-49, 50-99 and 100+ is not inconsiderable. The factories in these employment groups are conspicuously more numerous in rural than in urban areas, there being no factory in urban Tripura employing more than 100 persons. The use of electricity is very limited even in the higher employment brackets liquid fuel enjoying decidedly the upper hand, presumably because liquid fuel is used for the prime mover, solid fuel also seems to be in use as prime mover.

The following are the numerically important industries in Tripura :

Rank	I.S.I.C. Minor Group	Description	Number of units		
			Total	Rural	Urban
1	273	Textile garments	406	232	174
2	393	Jewellery	259	135	124
3	235	Cotton weaving in handlooms	186	166	20
4	360	Smelting, refining etc. of iron and steel	170	119	51
5	388	Repair of bicycles	167	55	112
6	350	Earthenware and earthen pottery	139	137	2
7	281	Wooden furniture and fixtures	119	52	67
8	200	Milling of grain	108	83	25
9	205	Bakery products	57	30	27
10	217	Tea processing	50	50	..
11	220	Bidi	42	25	17
12	384	Repairing and servicing of motor vehicles	40	6	34

The following industries are found only in urban areas :

1 Fruit canning and preservation factories
2 Repair of waterproof textile products
3 Printing and publishing of newspapers and periodicals
4 Miscellaneous printing
5 Matches
6 Medicines etc. except soap
7 Iron and steel furniture
8 Sundry hardwares
9 Manufacture and repair of electrical machinery
10 Other electrical machinery
11 Storage batteries
12 Radios, microphones etc.
13 Animal and handdrawn transport
14 Stationery articles

The following industries have grown in rural areas only :

1 Other food products (condiments)
2 Tea processing
3 Cotton spinning
4 Cotton dyeing and bleaching
5 Cotton weaving in handlooms
6 Wool weaving in handlooms
7 Shoes and other leather footwear
8 Fertilizers
9 Bricks and tiles

Regionally, Agartala Town, Sadar tehsils and old Agartala tehsils have the largest concentration of workshops and factories. Tea factories are most numerous in Kailasahar tehsil (19) and then in Sadar (6).

The following industries employ electricity and liquid fuel:

Industries employing electricity

Minor Group	Number of persons employed	
	Rural	Urban
200	11	32
384	8	250
393	..	4
360	..	4
280	..	25
302	..	18
334	..	35
207	..	11
335	..	1
378	..	9
379	..	4
377	..	2
374	..	1

Industries employing liquid fuel

Minor Group	Rural	Urban
217	2,139	..
360	89	..
200	271	50
207	3	1
280	48	66
311	8	..
388	..	5
302	..	4
367	..	9
304	..	4

Dadra and Nagar Haveli

The following statement gives the distribution of workshops and factories by range of employment, rural and urban and power used.

Distribution of workshops and factories in Dadra and Nagar Haveli by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total	1,213	960	246	4	2	1	..	..
Rural	1,213	960	246	4	2	1	..	..
Urban	..	..	..	..	..	..	..	..
Total	100·00	100·00	100·00	100·00	100·00	100·00	..	..
Rural	100·00	100·00	100·00	100·00	100·00	100·00	..	..
Urban	..	..	..	..	..	..	..	..
Total	100·00	79·14	20·28	0·33	0·17	0·08	..	..
Rural	100·00	79·14	20·28	0·33	0·17	0·08	..	..
Urban	..	..	..	..	..	..	..	..

Type of fuel or power used	Size of employment							
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+
1	2	3	4	5	6	7	8	9
Total ..	1,213	960	246	4	2	1	..	..
Electricity ..	..	..	..	..	..	..	..	..
Liquid fuel ..	22	6	13	..	2	1	..	..
Coal, wood and bagasse ..	..	..	..	..	..	..	..	..
Other power ..	3	1	1	1	..	..	..	..
No power ..	1,188	953	232	3	..	..	..	..
Total ..	100·00	100·00	100·00	100·00	100·00	100·00	..	..
Electricity ..	..	..	..	..	..	..	..	..
Liquid fuel ..	1·81	0·63	5·28	..	100·00	100·00	..	..
Coal, wood and bagasse ..	..	..	..	..	..	..	..	..
Other power ..	0·25	0·10	0·41	25·00	..	..	..	..
No power ..	97·94	99·27	94·31	75·00	..	..	..	..
Total ..	100·00	79·14	20·28	0·33	0·17	0·08	..	..
Electricity ..	..	..	..	..	..	..	..	..
Liquid fuel ..	100·00	27·27	59·09	..	9·09	4·55	..	..
Coal, wood and bagasse ..	..	..	..	..	..	..	..	..
Other power ..	100·00	33·34	33·33	33·33	..	..	..	..
No power ..	100·00	80·22	19·53	0·25	..	..	..	..

Distribution of workshops and factories in Dadra and Nagar Haveli by size of employment, rural and urban and by type of fuel or power used—concld.

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	1,213	..	22	..	3	1,188
Rural	1,213	..	22	..	3	1,188
Urban	..	..	..	..	..	..
Total	100·00	..	100·00	..	100·00	100·00
Rural	100·00	..	100·00	..	100·00	100·00
Urban	..	..	..	..	..	..
Total	100·00	..	1·81	..	0·25	97·94
Rural	100·00	..	1·81	..	0·25	97·94
Urban	..	..	..	..	..	..

There are no urban areas in this territory. The unorganised sector of 1-5 person accounts for 99·42 per cent of all establishments. Electricity is not used at all, but liquid fuel is used in 22 workshops. It is significant that as much as 20 per cent of the workshops employ 2-5 persons and there are three factories employing 10 persons or more.

Pondicherry

The following statement gives the distribution of factories and workshops in Pondicherry by size of employment, rural and urban and power used :

Distribution of workshops and factories in Pondicherry by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	1,588	220	764	96	53	27	8	8	412
Rural	864	121	410	45	20	9	4	5	250
Urban	724	99	354	51	33	18	4	3	162
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Rural	54·41	55·00	53·66	46·87	37·74	33·33	50·00	62·50	60·68
Urban	45·59	45·00	46·34	53·13	62·26	66·67	50·00	37·50	39·32
Total	100·00	13·85	48·11	6·05	3·34	1·70	0·50	0·50	25·95
Rural	100·00	14·00	47·45	5·21	2·32	1·04	0·46	0·58	28·94
Urban	100·00	13·67	48·90	7·04	4·56	2·49	0·55	0·41	22·38

Distribution of workshops and factories in Pondicherry by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	**1,588**	**220**	**764**	**96**	**53**	**27**	**8**	**8**	**412**
Electricity	138	3	63	16	19	15	4	7	11
Liquid fuel	48	1	31	8	1	2	1	..	4
Coal, wood and bagasse	61	14	40	3	3	..	..	..	1
Other power	6	...	4	..	2	..	..	..	...
No power	1,335	202	626	69	28	10	3	1	396
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Electricity	8·69	1·36	8·25	16·67	35·85	55·55	50·00	87·50	2·67
Liquid fuel	3·02	0·46	4·06	8·33	1·89	7·41	12·50	..	0·97
Coal, wood and bagasse	3·84	6·36	5·23	3·13	5·66	..	..	..	0·24
Other power	0·38	..	0·52	..	3·77	..	..	..	...
No power	84·07	91·82	81·94	71·87	52·83	37·04	37·50	12·50	96·12
Total	100·00	13·85	48·11	6·05	3·34	1·70	0·50	0·50	25·95
Electricity	100·00	2·17	45·65	11·60	13·77	10·87	2·90	5·07	7·97
Liquid fuel	100·00	2·09	64·58	16·67	2·08	4·17	2·08	..	8·33
Coal, wood and bagasse	100·00	22·95	65·57	4·92	4·92	..	..	..	1·64
Other power	100·00	..	66·67	..	33·33	..	..	..	..
No power	100·00	15·13	46·89	5·17	2·10	0·75	0·22	0·08	29·66

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	1,588	138	48	61	6	1,335
Rural	864	54	42	27	1	740
Urban	724	84	6	34	5	595
Total	100·00	100·00	100·00	100·00	100·00	100·00
Rural	54·41	39·13	87·50	44·26	16·67	55·43
Urban	45·59	60·87	12·50	55·74	83·33	44·57
Total	100·00	8·69	3·02	3·84	0·38	84·07
Rural	100·00	6·25	4·86	3·12	0·12	85·65
Urban	100·00	11·60	0·83	4·70	0·69	82·18

The single person establishment is comparatively small in number and proportion both in rural and urban areas. If we include the category of not stated in the single person class the distribution more or less confers to what is observed in the neighbouring state of Madras. The 2-5 person workshop however still remains the predominant type. The ratio of rural to urban workshops is in favour of rural areas in 1-5 person establishments, but from 6 persons onwards it is reversed until the ratio gets even in 50-99 person factories (4 each in rural and urban areas) and the rural ratio gets the upper hand again in 100+ category. This is peculiar to Pondicherry, possibly because of the municipal tax rates and

restrictions which favour the siting of factories beyond municipal boundaries.

The use of electricity is comparatively low in single person establishments even including the not stated category (1·36+2·67=4·03 per cent). It, however, goes up rapidly and progressively with each higher range of employment except for a rather curious dip to 50 per cent in 50-99 range. The use of liquid fuel is negligible in urban areas and even much smaller in rural areas than that of electricity. 'No power' has an outstandingly high ratio.

The numerically important industries of Pondicherry are as follows :

Industries in Pondicherry in descending order of number of establishments

I.S.I.C. Minor Group	Description	Number of establishments	Localities of concentration
235	Cotton weaving in handlooms	623	Ozhukarai commune (390), Muthialpet town (147) of Pondicherry commune. Chief produce lungis
388	Repairing of bicycles	159	Pondicherry and Muthialpet (96)
393	Jewellery	144	Karukali town (37)
200	Milling of grain	136	8·6 per cent of all territory
369	Sundry hardwares	82	5·2 per cent (factory at Muthialpet producing bolts and nuts)

The more important industrial establishments in Pondicherry are as follows :

1 Textile mills—There are 4 mills employing more than 8,500 persons (8·51 per cent of total working population) running on electricity.
2 One sugar mill at Ariyalur, now called Sacrur in Villianur commune. This employs about 500 persons and went into production in September 1960.
3 Fish curring is an important industry in Mahe which has 38 out of a total of 40 units.
4 Production of aerated and mineral water—25 units.
5 One distillery in Pondicherry.

Sikkim

The following statement gives the distribution of workshops and factories by range of employment, rural and urban and power used :

Distribution of workshops and factories in Sikkim by size of employment, rural and urban and by type of fuel or power used

Total Rural Urban	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	244	51	25	13	4	..	..	..	151
Rural	210	44	13	11	3	..	..	..	139
Urban	34	7	12	2	1	..	..	..	12
Total	100·00	100·00	100·00	100·00	100·00	..	..	..	100·00
Rural	86·07	86·27	52·00	84·62	75·00	..	..	..	92·05
Urban	13·93	13·73	48·00	15·38	25·00	..	..	..	7·95
Total	100·00	20·90	10·25	5·33	1·64	..	..	..	61·88
Rural	100·00	20·95	6·19	5·24	1·43	..	..	..	66·19
Urban	100·00	20·59	35·30	5·88	2·94	..	..	..	35·29

Distribution of workshops and factories in Sikkim by size of employment, rural and urban and by type of fuel or power used—concld.

Type of fuel or power used	Size of employment								
	Total	1	Small 2-5	Medium 6-9	Big workshops small factories 10-19	Medium factories 20-49	Large 50-99	Very large 100+	Not stated
1	2	3	4	5	6	7	8	9	10
Total	**244**	**51**	**25**	**13**	**4**	..	..	..	**151**
Electricity	2	..	1	..	1	..	..	..	..
Liquid fuel	1	..	..	1	..	..	..	..	..
Coal, wood and bagasse	2	..	1	..	...	..	..	...	1
Other power	..	..	..	..	..	..	..	..	..
No power	239	51	23	12	3	..	..	..	150
Total	100·00	100·00	100·00	100·00	100·00	..	..	..	100·00
Electricity	0·82	..	4·00	..	25·00	..	..	..	..
Liquid fuel	0·41	..	..	7·69	..	..	..	..	..
Coal, wood and bagasse	0·82	..	4·00	..	..	...	...	...	0·66
Other power	..	..	..	..	..	..	..	..	..
No power	97·95	100·00	92·00	92·31	75·00	..	..	..	99·34
Total	100·00	20·90	10·25	5·33	1·64	..	..	..	**61·88**
Electricity	100·00	..	50·00	..	50·00	..	..	..	..
Liquid fuel	100·00	..	..	100·00	..	..	..	..	..
Coal, wood and bagasse	100·00	...	50·00	...	...	...	...	...	50·00
Other power	..	..	..	..	..	..	..	..	..
No power	100·00	21·54	9·62	5·02	1·06	...	..	..	62·76

Total Rural Urban	Type of fuel or power used					
	Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power	No power
1	2	3	4	5	6	7
Total	244	2	1	2	..	239
Rural	210	..	1	2	..	207
Urban	34	2	...	...	..	32
Total	100·00	100·00	100·00	100·00	..	100·00
Rural	86·07	..	100·00	100·00	..	86·61
Urban	13·93	100·00	..	...	..	13·39
Total	100·00	0·82	0.41	0·82	..	97·95
Rural	100·00	..	0·48	0·95	..	98·57
Urban	100·00	5·88	..	..	..	94·12

The category of not stated may be safely included in the unorganised sector of 1-5 persons, mainly the single person establishments. The single person establishment is overwhelming by predominant in rural areas and only less so in urban areas. In rural areas workshops employing more than one person drops steeply to 6·2 per cent in 2-5 to 5·2 in 6-9 and 1·4 in 10-19. There are no factories in either rural or urban areas employing more than 20 persons. But it is possible that the Sikkim Government fruit canning and preservation factory and the Sikkim distilleries which employ more than 19 persons each were left out of count.

In certain other respects the housing census was inadequate.

CHAPTER V

USE OF ELECTRICITY IN INDUSTRY

A. General features of industrial distribution by major groups of industry and extent of use of electricity

THE FOLLOWING statement gives an account of:

(1) Rural establishments (total and electrified) in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural establishments in India 1960.

(2) Urban establishments (total and electrified) in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all urban establishments in India 1960.

STATEMENT V.1

Proportion per 1,000 of all establishments of Division 2 & 3 of I.S.I.C. in each major group in rural and urban areas

I.S.I.C. Major Group	Description	Value per 1,000 establishments	
		Rural	Urban
1	2	3	4
20	Foodstuffs	180	141
21	Beverages	5	11
22	Tobacco products	77	49
23	Textile—Cotton	173	176
24	Textile—Jute	2·6	1·2
25	Textile—Wool	12	3·5
26	Textile—Silk	4	16
27	Textile—Miscellaneous	77	143
28	Manufacture of wood and wood products	135	61
29	Paper and paper products	0·3	2·3
30	Printing and publishing	0·5	21
31	Leather and leather products	80	46
32	Rubber, petroleum and coal products	0·4	3
33	Chemicals and chemical products	3·5	14
34-35	Non-metallic mineral products other than petroleum and coal	84	27
36	Basic metals and their products except machinery and transport equipment	91	77
37	Machinery (all kinds other than transport) and electrical equipment	0·7	16
38	Transport equipment	14	72
39	Miscellaneous manufacturing industries	60	120

The first part of the statement makes it all too clear how in rural areas the order of precedence in industrial establishments is firmly held by (1) 20, foodstuffs (180) followed closely by (2) 23, cotton textiles or clothing (173) and some to way behind by (3) 28, wood and wood industries connected with housing (135). Metal work (Major Group 36) mainly sundry hardware, connected with agricultural implements and domestic utensils (91) comes a long way behind, occupying the fourth place of importance, followed by (5) major groups 34-35, mainly earthenware and pottery, stoneware etc. (84). The sixth place is occupied by major group 31 (leather and leather products), mainly connected with disposal of dead cattle (80). The seventh place is occupied by major group 27, fabricated garments (77) and the eighth by major group 22, tobacco (77). The ninth place is occupied by major group 39, mainly

jewellery still the major anti-inflationary device and strong hold of rural savings (60). The remainder follow at a great distance. The tenth place is taken by major group 38, transport equipment (14) the eleventh by major group 25, woollen products (12) for protection against the cold and exposure, the twelfth by major group 21, beverages, both inebriating and non-inebriating (5) the thirteenth by major group 26, silk, mainly for effecting earnings (4) the fourteenth by major group 33, chemicals and chemical products, mainly salt and indigenous pharmaceutical products and cosmetics (3·5), the fifteenth by major group 24, jute (2·6). The sixteenth place is occupied by major group 37, machinery (0·7), the seventeenth by major group 30, printing and publishing (0·5), the eighteenth by major group 32, rubber, petroleum and coal products (0·4) and the nineteenth by major group 29, paper and paper products (0·3). The priorities for a rural and agricultural economy, whose needs are circumscribed by poverty, which is yet taking the first step towards a variegated industrial economy and better levels of education, are thus neatly spelt out.

Major group 20, foodstuffs, alone employs the bulk of electricity in rural areas, major group 23, cotton textiles, occupies the second but a comparatively humble position with its gins and presses, mills and powerlooms. The third place is occupied by major group 28, mainly perhaps on account of saw mills. The fourth place is occupied by major group 36, metals both iron and non-iron. The fifth place is occupied by major groups 34-35, non-metallic minerals, the sixth by major group 21, beverages, mainly tea and coffee; the seventh by major group 38, transport equipment; the eighth by major group 39, miscellaneous manufactures; the ninth by major group 37, machinery; the tenth by major group 25, wool; the eleventh by major group 33, chemicals. Although none but major group 20 employs electricity in any substantial number of establishments the above account serves to reflect a fairly rational order of electricity use in relation to available raw materials and the priority of demands in rural areas.

It is interesting to observe how the urban ordering differs from the rural. In urban establishments, major group 23, cotton textiles occupies the first place (176) followed some distance behind by major group 27, miscellaneous textiles, chiefly garments (143). The third place however, is occupied by major group 20, foodstuffs (141). Thereafter the score is as follows :

STATEMENT V.2

Urban industries arranged in order of numerical superiority

Rank	Major Group	Description	Value per 1,000 establishments
1	23	Cotton textiles	176
2	27	Textile garments	143
3	20	Foodstuffs	141
4	39	Miscellaneous industries	120
5	36	Metal industries	77
6	38	Transport industry	72
7	28	Wood industry	61
8	22	Tobacco industry	49
9	31	Hides, skins and leather industries	46
10	34-35	Non-metallic minerals	27
11	30	Printing and publishing	21
12	37	Machinery	16
13	26	Silk	16
14	33	Chemicals	14
15	21	Beverages	11
16	25	Wool	3·5
17	32	Rubber, petroleum and coal products	3
18	29	Paper and paper products	2·3
19	24	Jute	1·2

Here again, about a third of all electrified urban establishments are engaged in the processing of foodstuffs, major group 20 (322). The second place is occupied by major group 36, metal industries (114); the third by major group 23, cotton textiles (104). The fourth place is occupied by major group 37, machinery (77); the fifth by major group 30, printing and publishing (66); the sixth by major group 38, transport equipment (63); the seventh by major group 28, wood and wood products (56); the eighth by major group 39, miscellaneous industries (55); the ninth by major group 27, miscellaneous textiles (37); the tenth by major group 21, beverages (29); the eleventh by major group 33, chemicals and chemical products (24); the twelfth by major group 26, silk (18); and the thirteenth by major groups 34-35, non-metallic mineral products (14). Thus although food-processing industrial establishments are less than those producing cotton textiles and miscellaneous textile goods, they employ electricity in more units than the latter. By contrast a much smaller proportion of cotton textile establishments uses electricity. The proportionate use of electricity in urban industrial establishments is substantial in major groups—20, 21, 23, 26, 27, 28, 30, 33, 34-35, 36, 37, 38 and 39 but is low in major groups 22, 24, 25, 29, 31 and 32.

Several things need to be borne in mind when considering the ratios. First, the majority of rural establishments are single-person concerns conducted with traditional tools and in many places as traditional caste-occupations under traditional economic arrangements of jajmani with very small capital and rolling stock. The numerousness of rural establishments, therefore, particularly where a very small proportion of them is electrified, is more a symptom of backwardness than industrial health. This is why some of the industrially advanced States have low ratios, while the comparatively industrially backward ones have high proportions. This is not always proof of de-industrialization as is too often contended but may as well indicate a process of transformation of traditional forms of industrial organisation into modern ones. But it certainly is an indication of the crumbling of the ancient jajmani system. Secondly, the number of rural establishments in no way reflects the actual employment of workers in industry because the number of establishments varies inversely and markedly with the number of workers per unit. Thirdly, even in urban areas the single person establishment predominates in certain States although 2-5 person units hold the dominating position numerically and therefore much the same arguments apply equally for urban and rural areas. Lastly, the proportion of establishments electrified, either in rural or urban areas is certainly an index of modernisation of tools and equipment and also of scale of operations, although it is again, no index of the number of persons employed in industries run on electricity.

This serves to explain the high rural proportions enjoyed by Madhya Pradesh, Orissa and Bihar. Maharashtra's case is more complex inasmuch as the factors which go to make the high proportions are limited in certain backward pockets. The low proportions in Assam, Gujarat, Kerala, Madras, Mysore and Punjab may indeed be regarded not with pessimism but optimism in view of what has been observed elsewhere. The index in Jammu and Kashmir however appears to reflect backwardness as indeed it does in Rajasthan also. Uttar Pradesh and West Bengal reflect the transition from traditional selfsufficiency through village industry to dependence on modern production.

The urban ratios are high in three States: Maharashtra, Madras and Uttar Pradesh. The intermediate group is formed by Madhya Pradesh, West Bengal, Gujarat, Mysore, Bihar and Andhra Pradesh. The bottom group is formed by Punjab, Kerala, Rajasthan, Orissa, Delhi, Jammu and Kashmir and Assam.

Only about 1·2 per cent of all rural establishments run on electricity. A high ratio would signify at least two things: First, that electricity has reached in a

large measure the single person establishment; secondly, that an effective grid network exists and tariffs are low. The State with the highest value is Madras (170), followed a long way behind but in a close group by Uttar Pradesh (118), Kerala (117) and Bihar (116). These in turn are followed a short way behind by two States, Punjab (98) and Mysore (89). The fourth group of moderate values consists of Maharashtra (73), Gujarat (61) and Andhra Pradesh (59). The fifth group of low values is made up of West Bengal (45) and Madhya Pradesh (20). The sixth and last group of the lowest values consists of Jammu and Kashmir (9), Rajasthan (9), Assam (5), Orissa (5) and Delhi (1).

About 14 per cent of all urban establishments are run on electricity. The first group of high values consists of the States of Maharashtra (170), West Bengal (148), and Gujarat (123). The second group consists of Madras (93), Uttar Pradesh (81), Punjab (80) and Mysore (61). The third group of low values consists of Madhya Pradesh (57), Delhi (44), Andhra Pradesh (39), Bihar (39), Rajasthan (25) and Kerala (21). The fourth group of very low values consists of Jammu and Kashmir (8), Orissa (5) and Assam (4).

We may now make the following convenient groupings :

Group I High values where a State shares more than 100 in a major group per 1,000 of all establishments in Division 2 & 3.

Group II Medium values where a State shares between 51 and 100 in a major group per 1,000 of all establishments in Division 2 & 3.

Group III Low values where a State shares between 21 and 50 in a major group per 1,000 of all establishments in Division 2 & 3.

Group IV Very low values where a State shares 20 or less in a major group per 1,000 of all establishments in Division 2 & 3.

The following statement classifies the states under four groups indicated above in each of the major groups of Division 2 & 3 of I.S.I.C. in respect of rural and urban establishments respectively. Classification of states by their proportion per 1,000 of all establishments in each major group of Division 2 & 3 of I.S.I.C in rural and urban areas separately.

STATEMENT V.3

Classification of States by their proportion per 1,000 *of all establishments in each major group of Division* 2 & 3 *of I.S.I.C. in rural and urban areas separately*

Group I More than 100 in a major group per 1,000 of all establishments.

Group II Between 51 and 100 in a major group per 1,000 of all establishments.

Group III Between 21 and 50 in a major group per 1,000 of all establishments.

Group IV Between 0 and 20 in a major group per 1,000 of all establishments.

	Rural				Urban			
	I 101+	II 51—100	III 21—50	IV 0—20	I 101+	II 51—100	III 21—50	IV 0—20
	1	2	3	4	5	6	7	8
20	Bihar Madhya Pradesh Uttar Pradesh West Bengal	Jammu and Kashmir Maharashtra Union Territories	Andhra Pradesh Gujarat Kerala Orissa Punjab	Assam Madras Mysore Rajasthan Delhi	Bihar Madhya Pradesh Maharashtra Uttar Pradesh	Gujarat Madras West Bengal	Andhra Pradesh Kerala Mysore Punjab Rajasthan	Assam Jammu and Kashmir Orissa Delhi Union Territories

STATEMENT V.3

Classification of States by their proportion per 1,000 *of all establishments in each major group of Division* 2 & 3 *of I.S.I.C. in rural and urban areas separately*—contd.

	Rural				Urban			
	I 101+	II 51—100	III 21—50	IV 0—20	I 101+	II 51—100	III 21—50	IV 0—20
	1	2	3	4	5	6	7	8
21	Bihar Madras West Bengal	Assam Kerala Madhya Pradesh Orissa	Andhra Pradesh Maharashtra Mysore Uttar Pradesh	Gujarat Jammu and Kashmir Punjab Rajasthan Delhi Union Territories	Madras Maharashtra Mysore	Andhra Pradesh Bihar Kerala Punjab	Gujarat Madhya Pradesh Uttar Pradesh West Bengal	Assam Jammu and Kashmir Orissa Rajasthan Delhi Union Territories
22	Madhya Pradesh(462) Maharashtra (254)	Andhra Pradesh Kerala	Bihar Mysore Orissa West Bengal	Assam Gujarat Jammu and Kashmir Madras Punjab Rajasthan Uttar Pradesh Delhi Union Territories	Madhya Pradesh Maharashtra Mysore	Bihar Kerala Madras West Bengal	Andhra Pradesh Gujarat Uttar Pradesh	Assam Jammu and Kashmir Orissa Punjab Rajasthan Delhi Union Territories
23	Andhra Pradesh Bihar Madras Orissa	Madhya Pradesh Uttar Pradesh West Bengal	Maharashtra Mysore Union Territories	Assam Gujarat Jammu and Kashmir Kerala Punjab Rajasthan Delhi	Madras Maharashtra	Andhra Pradesh Mysore Uttar Pradesh	Bihar Gujarat Madhya Pradesh Punjab West Bengal Union Territories	Assam Jammu and Kashmir Kerala Orissa Rajasthan Delhi
24	Andhra Pradesh Bihar Madhya Pradesh Maharashtra Orissa	Mysore	West Bengal	Assam Gujarat Jammu and Kashmir Kerala Madras Punjab Rajasthan Uttar Pradesh Delhi Union Territories	Bihar Maharashtra West Bengal	Andhra Pradesh Madhya Pradesh Madras Mysore Uttar Pradesh	Assam	Gujarat Jammu and Kashmir Kerala Orissa Punjab Rajasthan Delhi Union Territories
25	Jammu and Kashmir Maharashtra Mysore Union Territories	Andhra Pradesh Bihar Madhya Pradesh Uttar Pradesh		Assam Gujarat Kerala Madras Orissa Punjab Rajasthan West Bengal Delhi	Jammu and Kashmir Maharashtra Mysore Punjab	Bihar Madhya Pradesh Rajasthan Uttar Pradesh West Bengal	Andhra Pradesh Gujarat	Assam Kerala Madras Orissa Delhi Union Territories
26	Madras Mysore Uttar Pradesh West Bengal	Bihar	Andhra Pradesh Orissa	Assam Gujarat Jammu and Kashmir Kerala Madhya Pradesh Maharashtra Punjab Rajasthan Delhi Union Territories	Madras Uttar Pradesh	Mysore	Andhra Pradesh Gujarat Maharashtra Punjab West Bengal	Assam Bihar Jammu and Kashmir Kerala Madhya Pradesh Orissa Rajasthan Delhi Union Territories

STATEMENT V.3

Classification of States by their proportion per 1,000 *of all establishments in each major group of Division* 2 & 3 *of I.S.I.C. in rural and urban areas separately*—contd.

	Rural				Urban			
	I 101+	II 51—100	III 21—50	IV 0—20	I 101+	II 51—100	III 21—50	IV 0—20
	1	2	3	4	5	6	7	8
27	Madhya Pradesh Maharashtra Uttar Pradesh	Bihar Kerala	Andhra Pradesh Gujarat Madras Mysore Orissa West Bengal Union Territories	Assam Jammu and Kashmir Punjab Rajasthan Delhi	Gujarat Madras Maharashtra	Bihar Madhya Pradesh Mysore Uttar Pradesh West Bengal	Andhra Pradesh Kerala Punjab	Assam Jammu and Kashmir Orissa Rajasthan Delhi Union Territories
28	Madhya Pradesh Maharashtra Orissa	Andhra Pradesh Bihar	Gujarat Madras Mysore Uttar Pradesh Union Territories	Assam Jammu and Kashmir Kerala Punjab Rajasthan West Bengal Delhi	Madhya Pradesh Maharashtra Uttar Pradesh West Bengal	Andhra Pradesh Bihar Gujarat Madras Mysore Punjab	Kerala Orissa Rajasthan	Assam Jammu and Kashmir Delhi Union Territories
29	Bihar Uttar Pradesh	Maharashtra Rajasthan	Gujarat Madras Mysore Orissa Punjab West Bengal	Andhra Pradesh Assam Jammu and Kashmir Kerala Madhya Pradesh Delhi Union Territories	Maharashtra Uttar Pradesh West Bengal	Madras Delhi	Assam Bihar Gujarat Jammu and Kashmir Madhya Pradesh Orissa Punjab	Andhra Pradesh Kerala Mysore Rajasthan Union Territories
30	Kerala Madras Uttar Pradesh West Bengal	Maharashtra	Andhra Pradesh Bihar Mysore Punjab	Assam Gujarat Jammu and Kashmir Madhya Pradesh Orissa Rajasthan Delhi Union Territories	Madras Maharashtra West Bengal	Andhra Pradesh Mysore Uttar Pradesh Delhi	Bihar Gujarat Kerala Madhya Pradesh Punjab Rajasthan	Assam Jammu and Kashmir Orissa Union Territories
31	Andhra Pradesh Madhya Pradesh Maharashtra	Rajasthan Uttar Pradesh	Bihar Gujarat Punjab Union Territories	Assam Jammu and Kashmir Kerala Madras Mysore Orissa West Bengal Delhi	Madhya Pradesh Maharashtra Punjab Uttar Pradesh	Gujarat Rajasthan West Bengal	Andhra Pradesh Bihar Madras Mysore	Assam Jammu and Kashmir Kerala Orissa Delhi Union Territories
32	Kerala	Madras Uttar Pradesh	Bihar Gujarat West Bengal	Andhra Pradesh Assam Jammu and Kashmir Madhya Pradesh Maharashtra Mysore Orissa Punjab Rajasthan Delhi Union Territories	Madras Maharashtra West Bengal	Andhra Pradesh Gujarat Kerala Madhya Pradesh Mysore	Bihar Punjab Rajasthan Uttar Pradesh Delhi	Assam Jammu and Kashmir Orissa Union Territories

STATEMENT V.3

Classification of States by their proportion per 1,000 *of all establishments in each major group of Division* 2 & 3 *of I.S.I.C. in rural and urban areas separately*—concld.

	Rural				Urban			
	I 101+	II 51—100	III 21—50	IV 0—20	I 101+	II 51—100	III 21—50	IV 0—20
	1	2	3	4	5	6	7	8
33	Kerala Uttar Pradesh	Bihar Madhya Pradesh Madras Maharashtra Orissa West Bengal	Punjab Rajasthan	Andhra Pradesh Assam Gujarat Jammu and Kashmir Mysore Delhi Union Territories	Maharashtra Uttar Pradesh West Bengal	Gujarat Madhya Pradesh Madras Mysore	Andhra Pradesh Bihar Kerala Orissa Punjab Rajasthan Delhi	Assam Jammu and Kashmir Union Territories
34-35	Bihar Madhya Pradesh Orissa	Andhra Pradesh Maharashtra Uttar Pradesh	Madras Mysore West Bengal	Assam Gujarat Jammu and Kashmir Kerala Punjab Rajasthan Delhi Union Territories	Bihar Madhya Pradesh Maharashtra Uttar Pradesh	Andhra Pradesh Gujarat Madras West Bengal	Mysore Orissa Rajasthan	Assam Jammu and Kashmir Kerala Punjab Delhi Union Territories
36	Bihar Madhya Pradesh Maharashtra Orissa	Andhra Pradesh Uttar Pradesh West Bengal	Gujarat Jammu and Kashmir Kerala Madras Mysore Punjab Union Territories	Assam Rajasthan Delhi	Madras Maharashtra Uttar Pradesh West Bengal	Gujarat Madhya Pradesh Punjab	Andhra Pradesh Bihar Kerala Mysore Rajasthan Delhi	Assam Jammu and Kashmir Orissa Union Territories
37	Gujarat Maharashtra Punjab Uttar Pradesh	Assam Madras West Bengal	Bihar Kerala	Andhra Pradesh Jammu and Kashmir Madhya Pradesh Mysore Orissa Rajasthan Delhi Union Territories	Gujarat Maharashtra Punjab West Bengal	Uttar Pradesh	Andhra Pradesh Bihar Madhya Pradesh Madras Mysore Rajasthan Delhi	Assam Jammu and Kashmir Kerala Orissa Union Territories
38	Madras Maharashtra Uttar Pradesh West Bengal	Bihar	Andhra Pradesh Assam Kerala Madhya Pradesh Mysore Punjab	Gujarat Jammu and Kashmir Orissa Rajasthan Delhi Union Territories	Madras Maharashtra Uttar Pradesh	Andhra Pradesh Gujarat Madhya Pradesh Mysore Punjab West Bengal	Bihar Kerala Rajasthan	Assam Jammu and Kashmir Orissa Delhi Union Territories
39	Madhya Pradesh Maharashtra Orissa Uttar Pradesh	Andhra Pradesh Bihar	Gujarat Kerala Madras Mysore Punjab West Bengal	Assam Jammu and Kashmir Rajasthan Delhi Union Territories	Madras Maharashtra Uttar Pradesh West Bengal	Andhra Pradesh Bihar Gujarat Madhya Pradesh Punjab	Kerala Mysore Orissa Rajasthan	Assam Jammu and Kashmir Delhi Union Territories

NOTE : Union Territories appearing in the Statement represent all Union Territories and Other Areas except Delhi.

The following statements show against each State in rural and urban separately the major groups of the I.S.I.C. in which the proportion of establishments lies in one or another of the groups delineated above:

STATEMENT-V.4

Classification of States by their proportion per 1,000 of all establishments in India in each major group of Division 2 & 3 of I.S.I.C. in rural and urban areas separately

State	I.S.I.C. Major Group
Rural Areas	
Group I—States which have high values (more than 100 in any major group per 1,000 of all rural establishments of Division 2 & 3 in India)	
Andhra Pradesh	23, 24, 31
Bihar	20, 21, 23, 24, 29, 34-35, 36
Gujarat	37.
Jammu and Kashmir	25
Kerala	30, 32, 33
Madhya Pradesh	20, 22, 24, 27, 28, 31, 34-35, 36, 39
Madras	21, 23, 26, 30, 38.
Maharashtra	22, 24, 25, 27, 28, 31, 36, 37, 38, 39
Mysore	25, 26
Orissa	23, 24, 28, 34-35, 36, 39
Punjab	37.
Uttar Pradesh	20, 26, 27, 29, 30, 33, 37, 38, 39
West Bengal ..	20, 21, 26, 30, 38
Union Territories	25
Group II—States which have medium values (between 51 and 100 in any major group per 1,000 of all rural establishments of Division 2 & 3 in India).	
Andhra Pradesh	22, 25, 28, 34-35, 36, 39.
Assam	21, 37
Bihar	25, 26, 27, 28, 33, 38, 39
Jammu and Kashmir	20
Kerala	21, 22, 27
Madhya Pradesh	21, 23, 25, 33
Madras	32, 33, 37.
Maharashtra	20, 29, 30, 33, 34-35
Mysore	24
Orissa	21, 33.
Rajasthan	29, 31.
Uttar Pradesh	23, 25, 31, 32, 34-35, 36.
West Bengal	23, 33, 36, 37.
Union Territories ..	20.
Group III—States which have low values (between 21 and 50 in any major group per 1,000 of all rural establishments of Division 2 & 3 in India).	
Andhra Pradesh	20, 21, 26, 27, 30, 38.
Assam ..	38
Bihar ..	22, 30, 31, 32, 37.
Gujarat	20, 27, 28, 29, 31, 32, 36, 39
Jammu and Kashmir	36
Kerala	20, 36, 37, 38, 39
Madhya Pradesh	38.
Madras	27, 28, 29, 34-35, 36, 39.
Maharashtra	21, 23
Mysore	21, 22, 23, 27, 28, 29, 30, 34-35, 36, 38, 39.
Orissa	20, 22, 26, 27, 29.
Punjab ..	20, 29, 30, 31, 33, 36, 38, 39.
Rajasthan ..	33.
Uttar Pradesh	21, 28.
West Bengal ..	22, 24, 27, 29, 32, 34-35, 39.
Union Territories	23, 27, 28, 31, 36,

STATEMENT V. 4

Classification of States by their proportion per 1,000 of all establishments in India in each major group of Division 2 & 3 of I.S.I.C. in rural and urban areas separately—contd.

State	I.S.I.C. Major Group

Rural Areas—*concld.*

Group IV—States which have very low values (between 0 and 20 in any major group per 1,000 of all rural establishments of Division 2 & 3 in India).

Andhra Pradesh	29, 32*, 33, 37.
Assam	20, 22, 23, 24, 25*, 26, 27, 28, 29, 30, 31, 32, 33, 34-35, 36, 39.
Gujarat	21, 22, 23, 24*, 25, 26, 30, 33, 34-35, 38.
Jammu and Kashmir	21, 22, 23, 24*, 26, 27, 28, 29*, 30*, 31, 32, 33, 34-35, 37, 38, 39.
Kerala	23, 24, 25*, 26, 28, 29, 31, 34-35.
Madhya Pradesh	26, 29, 30, 32, 37.
Madras	20, 22, 24, 25, 31.
Maharashtra	26, 32.
Mysore	20, 31, 32, 33, 37.
Orissa	25, 30, 31, 32, 37, 38.
Punjab	21, 22, 23, 24, 25, 26, 27, 28, 32, 34-35.
Rajasthan	20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 32*, 34-35, 36, 37, 38, 39.
Uttar Pradesh	22, 24.
West Bengal	25, 28, 31.
Delhi	20, 21, 22, 23, 24*, 25, 26*, 27, 28, 29*, 30*, 31, 32*, 33, 34-35, 36, 37, 38, 39.
Union Territories	21, 22, 24, 26, 29*, 30, 32, 33, 34-35, 37, 38, 39.

Urban Areas

Group I—States which have high values (more than 100 in any major group per 1,000 of all urban establishments of Division 2 & 3 in India).

Bihar	20, 24, 34-35.
Gujarat	27, 37.
Jammu and Kashmir	25.
Madhya Pradesh	20, 22, 28, 31, 34-35.
Madras	21, 23, 26, 27, 30, 32, 36, 38, 39.
Maharashtra	20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Mysore	21, 22, 25.
Punjab	25, 31, 37.
Uttar Pradesh	20, 26, 28, 29, 31, 33, 34-35, 36, 38, 39.
West Bengal	24, 28, 29, 30, 32, 33, 36, 37, 39.

Group II—States which have medium values (between 51 and 100 in any major group per 1,000 of all urban establishments of Division 2 & 3 in India).

Andhra Pradesh	21, 23, 24, 28, 30, 32, 34-35, 38, 39.
Bihar	21, 22, 25, 27, 28, 39.
Gujarat	20, 28, 31, 32, 33, 34-35, 36, 38, 39.
Kerala	21, 22, 32.
Madhya Pradesh	24, 25, 27, 32, 33, 36, 38, 39.
Madras	20, 22, 24, 28, 29, 33, 34-35.
Mysore	23, 24, 26, 27, 28, 30, 32, 33, 38.
Punjab	21, 28, 36, 38, 39.
Rajasthan	25, 31.
Uttar Pradesh	23, 24, 25, 27, 30, 37.
West Bengal	20, 22, 25, 27, 31, 34-35, 38.
Delhi	29, 30.

Group III—States which have low values (between 21 and 50 in any major group per 1,000 of all urban establishments of Division 2 & 3 in India).

Andhra Pradesh	20, 22, 25, 26, 27, 31, 33, 36, 37.
Assam	24, 29.
Bihar	23, 29, 30, 31, 32, 33, 36, 37, 38.
Gujarat	21, 22, 23, 25, 26, 29, 30.
Jammu and Kashmir	29.
Kerala	20, 27, 28, 30, 33, 36, 38, 39.
Madhya Pradesh	21, 23, 29, 30, 37.
Madras	31, 37.
Maharashtra	26.

STATEMENT V.4

Classification of States by their proportion per 1,000 *of all establishments in India in each major group of Division* 2 & 3 *of I.S.I.C. in rural and urban areas separately*—concld.

State	I.S.I.C. Major Group
Urban Areas—*concld.*	
Group III—States which have low values (between 21 and 50 in any major group per 1,000 of all urban establishments of Division 2 & 3 in India)—*concld.*	
Mysore	20, 31, 34-35, 36, 37, 39.
Orissa	28, 29, 33, 34-35, 39.
Punjab	20, 23, 26, 27, 29, 30, 32, 33.
Rajasthan	20, 28, 30, 32, 33, 34-35, 36, 37, 38, 39.
Uttar Pradesh	21, 22, 32.
West Bengal	21, 23, 26.
Delhi	32, 33, 36, 37.
Union Territories	23.
Group IV—States which have very low values (between 0 and 20 in any major group per 1,000 of all urban establishments of Division 2 & 3 in India).	
Andhra Pradesh	29.
Assam	20, 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Bihar	26.
Gujarat	24.
Jammu and Kashmir	20, 21, 22, 23, 24, 26, 27, 28, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Kerala	23, 24, 25*, 26*, 29, 31, 34-35, 37.
Madhya Pradesh	26.
Madras	25.
Mysore	29.
Orissa	20, 21, 22, 23, 24, 25*, 26, 27, 30, 31, 32, 36, 37, 38.
Punjab	22, 24, 34-35.
Rajasthan	21, 22, 23, 24, 26, 27, 29.
Delhi	20, 21, 22, 23, 24, 25, 26, 27, 28, 31, 34-35, 38, 39.
Union Territories	20, 21, 22, 24*, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.

NOTE : Union Territories appearing in the Statement represent all Union Territories and Other Areas except Delhi.
*Value is 0.

The following statement shows the States in which the major groups noted against them have high values (more than 100 in any major group per 1,000 of all establishments of Division 2 & 3) both in rural and urban areas :

STATEMENT V.5

States which have high values (more than 100 *in any major group per* 1,000 *of all establishments of Division* 2 & 3 *in India) in both rural and urban areas*

State	I.S.I.C. Major Group
Bihar	20, 24, 34-35.
Gujarat	37.
Jammu and Kashmir	25.
Madhya Pradesh	20, 22, 28, 31, 34-35.
Madras	21, 23, 26, 30, 38.
Maharashtra	22, 24, 25, 27, 28, 31, 36, 37, 38, 39.
Mysore	25.
Punjab	37.
Uttar Pradesh	20, 26, 29, 33, 38, 39.
West Bengal	30.

Use of Electricity

The statements given on next page show against the urban areas of each State the major groups of the I.S.I.C. in which the proportion of establishments running on electricity lies in one or another of the four groups delineated above. This confirms observations elsewhere that electricity has come into its own pre-eminently in the urban areas of Maharashtra, West Bengal, Gujarat, Punjab, Madras, Uttar Pradesh, Mysore and Delhi. In other words the use of electricity as industrial

power in small establishments in a variety of industries has gained ground faster in the urban areas of these States than in others. It also shows that the use of electricity is on the way to making progress in a greater variety of industries again in the above States, and the following, in addition : Bihar and Madhya Pradesh. But the States of Andhra Pradesh, Assam, Jammu and Kashmir, Kerala, Orissa, Rajasthan and the Union Territories have still to make much effort to put electricity to use in small urban establishments in a variety of industries.

The absolute values for establishments running on electricity in rural areas are so low for most major groups of I.S.I.C. in most States that a similar classification for rural areas would be more misleading than illuminating.

STATEMENT V.6

Classification of States by their proportion per 1,000 *of all urban establishments in India in each major group of Division* 2 & 3 *of I.S.I.C. (urban areas only)*

State	I.S.I.C. Major Group
Group I—States which have high values (more than 100 in any major group per 1,000 of all urban establishments running on electricity of Division 2 & 3 in India).	
Andhra Pradesh	24.
Bihar	25.
Gujarat	22, 23, 26, 27, 28, 32, 34-35, 36, 37, 39.
Madhya Pradesh	32.
Madras	20, 21, 22, 26, 31, 38.
Maharashtra	20, 22, 23, 26, 28, 29, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Mysore	23, 26, 28.
Punjab	25, 26, 28, 31, 37, 38, 39.
Uttar Pradesh	20, 22, 29, 31.
West Bengal	24, 27, 28, 29, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Delhi	29, 30, 34-35, 36.
Group II—States which have medium values (between 51 and 100 in any major group per 1,000 of all urban establishments running on electricity of Division 2 & 3 in India).	
Andhra Pradesh	20, 21, 22.
Bihar	20, 30, 32, 38.
Gujarat	20, 21, 29, 30, 31, 33, 38.
Kerala	21, 28.
Madhya Pradesh	20, 23, 28.
Madras	27, 29, 30, 32, 33, 36, 39.
Maharashtra	21, 25, 27.
Mysore	20, 21, 24, 27, 30.
Punjab	20, 21, 23, 27, 32, 36.
Rajasthan	25.
Uttar Pradesh	24, 28, 30, 34-35, 36, 38, 39.
West Bengal	20, 21.
Delhi	31, 33, 37, 38, 39.
Group III—States which have low values (between 21 and 50 in any major group per 1,000 of all urban establishments running on electricity of Division 2 & 3 in India).	
Andhra Pradesh	28, 30, 33, 34-35, 36, 37, 38, 39.
Assam	38.
Bihar	21, 28, 34-35, 36, 37.
Gujarat	25.
Jammu and Kashmir ..	26, 38.
Kerala	20, 30, 32, 33, 34-35, 38.
Madhya Pradesh	21, 30, 36, 37, 38, 39.
Madras	23, 28, 34-35, 37.
Maharashtra	24.
Mysore	22, 28, 31, 33, 34-35, 36, 37, 39.
Punjab	30, 33.
Rajasthan	20, 21, 22, 30, 32, 38.
Uttar Pradesh	21, 23, 25, 27, 33, 37.
West Bengal	22, 23, 25.
Delhi	21, 25, 27, 32.

STATEMENT V.6

Classification of States by their proportion per 1,000 *of all urban establishments in India in each major group of Division* 2 & 3 *of I.S.I.C. (urban areas only)*—concld.

State	I.S.I.C. Major Group
Group IV—States which have very low values (between 0 and 20 in any major group per 1,000 of all urban establishments running on electricity of Division 2 & 3 in India).	
Andhra Pradesh	23, 25, 26, 27, 29, 31*, 32.
Assam	20, 21, 22*, 23, 24, 25*, 26*, 27, 28, 29, 30, 31*, 32, 33, 34-35*, 36, 37, 39
Bihar ..	22, 23, 24*, 26, 27, 29, 31, 33, 39.
Gujarat	24.
Jammu and Kashmir	20, 21, 22*, 23, 24*, 25, 27, 28, 29*, 30, 31*, 32, 33, 34-35, 36, 37, 39
Kerala..	22*, 23, 24*, 25*, 26*, 27, 29, 31, 36, 37, 39
Madhya Pradesh	22*, 24, 25*, 26, 27, 29, 31, 33, 34-35.
Madras	24*, 25.
Mysore	23, 29, 32.
Orissa	20, 21, 22*, 23, 24*, 25*, 26*, 27, 28, 29*, 30, 31, 32, 33, 34-35, 36, 37, 38, 39.
Punjab	22*, 24, 29, 34-35.
Rajasthan	23, 24*, 26*, 27, 28, 29, 31, 33, 34-35, 36, 37, 39.
Uttar Pradesh	26, 32.
West Bengal	26.
Delhi	20, 22, 23, 24, 26, 28.
Union Territories	20, 21, 22*, 23, 24*, 25, 26*, 27, 28, 29, 30, 31*, 32, 33, 34-35, 36, 37, 38, 39.

NOTE : Union Territories appearing in the Statement represent all Union Territories and Other Areas except Delhi
*Value is 0.

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 *of I.S.I.C. expressed as proportion per* 1,000 *of all rural and urban establishments respectively in India,* 1960

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
(Divisions 0, 1, 2 & 3) *(Absolute figures)*	*1,686,195*	*713,642*	*20,503*	*100,321*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	68	50	59	39
Assam	4	6	5	4
Bihar	119	57	116	39
Gujarat	20	64	61	123
Jammu and Kashmir	21	10	9	8
Kerala	23	27	117	21
Madhya Pradesh	200	95	20	57
Madras	51	149	170	93
Maharashtra	120	165	73	170
Mysore	32	63	89	61
Orissa	128	16	5	5
Punjab	20	47	98	80
Rajasthan	15	25	9	25
Uttar Pradesh	94	115	118	81
West Bengal	55	90	45	148
Delhi	N	12	1	44
All Union Territories and Other Areas except Delhi	30	9	5	2

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 20—Foodstuffs				
(Absolute figures)	*301,706*	*100,598*	*14,503*	*32,256*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	30	46	73	63
Assam	3	4	2	2
Bihar	127	102	113	58
Gujarat	22	59	45	79
Jammu and Kashmir	65	13	7	10
Kerala	24	22	118	24
Madhya Pradesh	115	124	23	84
Madras	20	71	181	125
Maharashtra	89	151	64	139
Mysore	19	44	101	63
Orissa	46	6	3	6
Punjab	47	34	86	60
Rajasthan	17	32	10	42
Uttar Pradesh	199	192	136	146
West Bengal	119	88	31	84
Delhi	N	8	1	12
All Union Territories and Other Areas except Delhi	58	4	6	3
Major Group 21—Beverages				
(Absolute figures)	*8,860*	*7,790*	*494*	*2,951*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	46	97	32	96
Assam	75	5	32	2
Bihar	267	60	43	36
Gujarat	10	50	30	79
Jammu and Kashmir	N	5	0	6
Kerala	78	71	148	51
Madhya Pradesh	57	35	6	38
Madras	122	250	413	292
Maharashtra	31	110	18	96
Mysore	38	106	79	92
Orissa	85	6	2	4
Punjab	19	73	47	63
Rajasthan	1	15	0	21
Uttar Pradesh	27	45	35	43
West Bengal	131	50	109	52
Delhi	N	14	0	23
All Union Territories and Other Areas except Delhi	13	8	6	6

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 22—Tobacco products				
(Absolute figures)	*129,545*	*35,075*	*91*	*153*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	55	29	22	98
Assam	N	1	0	0
Bihar	37	82	0	6
Gujarat	11	26	505	314
Jammu and Kashmir	N	1	0	0
Kerala	54	57	0	0
Madhya Pradesh	462	317	0	0
Madras	8	75	319	222
Maharashtra	254	188	0	118
Mysore	50	106	44	39
Orissa	35	20	0	0
Punjab	N	1	0	0
Rajasthan	1	8	22	26
Uttar Pradesh	10	22	88	131
West Bengal	23	66	0	33
Delhi	N	N	0	13
All Union Territories and Other Areas except Delhi	N	1	0	0
Major Group 23—Textile-Cotton				
(Absolute figures)	*290,251*	*125,511*	*894*	*10,422*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	109	59	22	6
Assam	1	2	0	N
Bihar	174	34	32	8
Gujarat	7	37	102	206
Jammu and Kashmir	3	2	6	2
Kerala	12	13	9	2
Madhya Pradesh	74	45	9	83
Madras	149	359	292	50
Maharashtra	46	197	198	371
Mysore	24	77	157	122
Orissa	214	15	11	1
Punjab	4	21	73	76
Rajasthan	12	11	7	8
Uttar Pradesh	69	75	55	31
West Bengal	65	29	23	26
Delhi	N	2	0	8
All Union Territories and Other Areas except Delhi	37	22	4	N

TABLE V-1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 24—Textile-Jute				
(Absolute figures)	*4,245*	*902*	*44*	*135*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	116	58	364	148
Assam	6	35	0	8
Bihar	242	135	113	0
Gujarat	0	13	0	15
Jammu and Kashmir	0	2	0	0
Kerala	1	11	68	0
Madhya Pradesh	111	94	0	7
Madras	1	59	0	0
Maharashtra	150	196	91	30
Mysore	63	67	0	67
Orissa	257	7	0	0
Punjab	3	8	23	7
Rajasthan	3	7	0	0
Uttar Pradesh	9	91	23	96
West Bengal	36	213	318	615
Delhi	0	4	0	7
All Union Territories and Other Areas except Delhi	2	0	0	0
Major Group 25—Textile-Wool				
(Absolute figures)	*19,590*	*2,498*	*322*	*305*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	88	22	0	7
Assam	0	1	0	0
Bihar	72	62	947	154
Gujarat	3	33	0	30
Jammu and Kashmir	157	140	6	3
Kerala	0	0	0	0
Madhya Pradesh	92	83	3	0
Madras	7	12	0	3
Maharashtra	144	152	6	79
Mysore	141	185	0	10
Orissa	N	0	0	0
Punjab	4	101	25	531
Rajasthan	13	71	0	95
Uttar Pradesh	70	62	3	36
West Bengal	1	54	0	23
Delhi	N	6	10	26
All Union Territories and Other Areas except Delhi	208	16	0	3

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 26 Textile-Silk				
(Absolute figures)	*6,742*	*11,104*	*135*	*1,807*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	34	48	45	14
Assam	1	5	0	0
Bihar	67	4	15	1
Gujarat	12	42	370	213
Jammu and Kashmir	4	10	82	24
Kerala	N	0	0	0
Madhya Pradesh	4	13	0	8
Madras	350	264	148	163
Maharashtra	17	40	30	112
Mysore	111	99	222	283
Orissa	42	8	0	0
Punjab	2	29	37	159
Rajasthan	6	2	0	0
Uttar Pradesh	214	414	44	14
West Bengal	136	21	7	4
Delhi	0	1	0	5
All Union Territories and Other Areas except Delhi	N	N	0	0
Major Group 27—Textile-Miscellaneous				
(Absolute figures)	*130,190*	*101,697*	*217*	*3,742*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	40	46	0	3
Assam	7	4	0	N
Bihar	83	55	5	3
Gujarat	42	105	147	386
Jammu and Kashmir	14	15	0	2
Kerala	59	37	438	13
Madhya Pradesh	150	85	0	13
Madras	45	129	14	74
Maharashtra	290	199	60	85
Mysore	34	72	14	57
Orissa	32	8	0	1
Punjab	10	44	110	91
Rajasthan	6	6	5	16
Uttar Pradesh	120	90	189	32
West Bengal	37	92	18	189
Delhi	N	5	0	34
All Union Territories and Other Areas except Delhi	31	8	0	1

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 28—Manufacture of wood and wood products				
(Absolute figures)	*226,193*	*43,453*	*792*	*5,628*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	66	53	24	41
Assam	3	8	23	7
Bihar	97	55	87	46
Gujarat	26	58	95	121
Jammu and Kashmir	6	13	32	19
Kerala	5	26	218	60
Madhya Pradesh	255	125	28	89
Madras	22	57	25	25
Maharashtra	112	170	45	144
Mysore	25	59	38	48
Orissa	281	50	31	11
Punjab	20	71	210	113
Rajasthan	14	27	13	14
Uttar Pradesh	38	103	73	95
West Bengal	9	103	49	144
Delhi	N	12	0	19
All Union Territories and Other Areas except Delhi	21	10	9	4
Major Group 29– Paper and paper products				
(Absolute figures)	*507*	*1,663*	*27*	*295*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	10	15	37	17
Assam	8	24	0	4
Bihar	227	43	74	3
Gujarat	22	41	297	88
Jammu and Kashmir	0	21	0	0
Kerala	8	6	37	7
Madhya Pradesh	4	37	0	10
Madras	37	60	185	68
Maharashtra	79	220	37	227
Mysore	22	13	74	17
Orissa	33	28	0	0
Punjab	27	24	111	20
Rajasthan	53	13	37	7
Uttar Pradesh	448	110	37	159
West Bengal	22	274	74	265
Delhi	0	70	0	105
All Union Territories and Other Areas except Delhi	0	1	0	3

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 30—Printing and publishing				
(Absolute figures)	*794*	*15,054*	*98*	*6,664*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	44	62	21	33
Assam	15	11	0	8
Bihar	35	34	61	51
Gujarat	20	47	41	75
Jammu and Kashmir	0	5	0	6
Kerala	310	43	265	29
Madhya Pradesh	20	35	31	42
Madras	103	137	163	76
Maharashtra	89	154	174	156
Mysore	37	62	112	61
Orissa	4	10	10	12
Punjab	29	37	20	49
Rajasthan	20	24	20	34
Uttar Pradesh	116	76	31	54
West Bengal	149	202	51	206
Delhi	0	57	0	104
All Union Territories and Other Areas except Delhi	9	4	0	4
Major Group 31— Leather and leather products				
(Absolute figures)	*133,902*	*32,484*	*85*	*368*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	114	37	12	0
Assam	1	3	12	0
Bihar	50	35	47	5
Gujarat	24	86	23	57
Jammu and Kashmir	18	14	12	0
Kerala	4	17	12	8
Madhya Pradesh	433	127	0	8
Madras	5	36	118	109
Maharashtra	144	155	23	130
Mysore	16	39	23	27
Orissa	16	9	0	3
Punjab	27	102	35	155
Rajasthan	52	68	0	3
Uttar Pradesh	59	163	47	106
West Bengal	9	85	624	332
Delhi	N	11	0	57
All Union Territories and Other Areas except Delhi	28	13	12	0

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 32—Rubber, petroleum and coal products				
(*Absolute figures*)	*676*	*2,168*	*73*	*772*
INDIA	1,000	1,000	1,000	1,000
Andhra Pradesh	0	67	0	9
Assam	7	N	14	1
Bihar	37	49	233	65
Gujarat	24	73	55	118
Jammu and Kashmir	3	7	27	14
Kerala	722	89	356	35
Madhya Pradesh	15	64	0	108
Madras	59	131	41	82
Maharashtra	13	154	14	165
Mysore	9	56	27	14
Orissa	6	6	0	12
Punjab	18	46	96	97
Rajasthan	0	37	0	26
Uttar Pradesh	53	28	110	13
West Bengal	33	167	27	212
Delhi	0	24	0	28
All Union Territories and Other Areas except Delhi	1	2	0	1
Major Group 33—Chemicals and chemical products				
(*Absolute figures*)	*5,883*	*10,111*	*242*	*2,385*
INDIA	1,000	1,000	1,000	1,000
Andhra Pradesh	13	28	54	24
Assam	11	8	4	1
Bihar	54	40	83	18
Gujarat	17	66	120	86
Jammu and Kashmir	3	7	4	7
Kerala	317	47	178	23
Madhya Pradesh	61	56	4	12
Madras	68	78	178	57
Maharashtra	63	190	83	260
Mysore	15	68	66	33
Orissa	81	22	8	12
Punjab	21	47	87	28
Rajasthan	23	31	12	12
Uttar Pradesh	182	103	16	33
West Bengal	66	164	95	326
Delhi	1	42	0	66
All Union Territories and Other Areas except Delhi	4	3	8	2

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 34-35—Non-metallic mineral products other than petroleum and coal				
(Absolute figures)	*141,897*	*19,436*	*564*	*1,420*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	77	52	27	37
Assam	2	6	5	0
Bihar	218	124	175	28
Gujarat	18	56	271	253
Jammu and Kashmir	11	9	4	8
Kerala	9	16	213	28
Madhya Pradesh	213	138	12	20
Madras	22	58	55	34
Maharashtra	69	128	73	177
Mysore	28	47	28	40
Orissa	192	42	4	4
Punjab	5	18	23	9
Rajasthan	18	43	4	13
Uttar Pradesh	67	156	67	60
West Bengal	42	90	34	183
Delhi	1	14	5	104
All Union Territories and Other Areas except Delhi	8	3	0	2
Major Group 36—Basic metals and their products except machinery and transport equipment				
(Absolute figures)	*182,483*	*55,080*	*662*	*11,449*
INDIA	**1,000**	**1,000**	**1,000**	**1,000**
Andhra Pradesh	55	44	29	30
Assam	11	9	15	1
Bihar	130	49	83	23
Gujarat	29	72	72	103
Jammu and Kashmir	21	16	17	2
Kerala	21	26	77	15
Madhya Pradesh	232	75	14	27
Madras	41	122	169	84
Maharashtra	101	156	106	181
Mysore	35	40	47	22
Orissa	136	16	3	3
Punjab	26	60	94	71
Rajasthan	8	27	9	11
Uttar Pradesh	60	120	84	58
West Bengal	73	134	174	264
Delhi	N	29	6	104
All Union Territories and Other Areas except Delhi	21	5	1	1

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—contd.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 37—Machinery (all kinds other than transport) and electrical equipment				
(Absolute figures)	*1,166*	*11,470*	*381*	*7,760*
INDIA	1,000	1,000	1,000	1,000
Andhra Pradesh	6	22	18	30
Assam	75	5	18	2
Bihar	21	30	50	30
Gujarat	111	167	50	170
Jammu and Kashmir	2	3	5	5
Kerala	37	20	53	11
Madhya Pradesh	17	47	13	37
Madras	51	38	45	29
Maharashtra	197	160	176	170
Mysore	7	30	13	22
Orissa	2	3	5	4
Punjab	177	109	383	121
Rajasthan	12	21	3	16
Uttar Pradesh	177	57	50	40
West Bengal	95	235	110	253
Delhi	5	50	3	57
All Union Territories and Other Areas except Delhi	8	3	5	3
Major Group 38—Transport equipment				
(Absolute figures)	*23,968*	*51,076*	*481*	*6,253*
INDIA	1,000	1,000	1,000	1,000
Andhra Pradesh	42	66	8	30
Assam	29	14	42	23
Bihar	71	49	129	76
Gujarat	16	54	33	59
Jammu and Kashmir	2	6	10	21
Kerala	50	34	71	30
Madhya Pradesh	49	78	8	50
Madras	213	160	79	104
Maharashtra	156	133	69	110
Mysore	31	69	31	37
Orissa	20	7	21	14
Punjab	48	82	312	122
Rajasthan	12	40	12	29
Uttar Pradesh	151	107	71	51
West Bengal	101	79	83	157
Delhi	N	15	2	80
All Union Territories and Other Areas except Delhi	9	7	19	7

TABLE V.1

Rural and urban (total and electrified) establishments in each major group of Division 2 & 3 of I.S.I.C. expressed as proportion per 1,000 of all rural and urban establishments respectively in India, 1960—concld.

State	Proportion per 1,000 of all establishments shared by each State		Proportion per 1,000 of establishments run by electricity shared by each State	
	Rural	Urban	Rural	Urban
1	2	3	4	5
Major Group 39—Miscellaneous manufacturing industries				
(Absolute figures)	*101,702*	*85,870*	*393*	*5,521*
INDIA	1,000	1,000	1,000	1,000
Andhra Pradesh	83	54	53	29
Assam	6	6	10	5
Bihar	83	53	89	17
Gujarat	21	68	23	132
Jammu and Kashmir	8	11	25	6
Kerala	30	26	10	7
Madhya Pradesh	154	87	5	21
Madras	50	119	89	92
Maharashtra	132	142	171	151
Mysore	30	48	28	45
Orissa	130	21	8	2
Punjab	24	58	132	109
Rajasthan	20	41	3	14
Uttar Pradesh	176	123	229	57
West Bengal	44	125	125	244
Delhi	N	12	0	68
All Union Territories and Other Areas except Delhi	9	6	0	1

'N' indicates that the figures are negligible.
'0' indicates that there are no figures at all.

B. Classification of districts by use of electricity and liquid fuel in industry in rural areas

A brief stock may be taken of the employment of electricity in rural industrial establishments of India. Table V.2 shows that there is yet no apparent relationship between decadal rate of growth of rural population and proportion of electrified rural establishments. For one thing, per capita consumption of electricity by the rural population would perhaps be a more plausible index, if at all, than proportion of electrified rural establishments. For another, the extension of electricity to rural areas has been so recent in most parts of the Union. The following is an abstract of the table printed at the end of the chapter :

STATEMENT V.7

Classification of districts according to proportion of rural industrial establishments using electricity expressed as percentage of all rural workshops and factories (restricted to districts in which the percentage is 1 or more)

	Range of use	State (Number of districts within brackets)	
	1	2	
1	Electricity used in more than 10 per cent of all rural establishments: Very high (maximum value 13·31)	Madras (1)	Mysore (3)
2	5·16-9·15 per cent. High	Gujarat (1) Kerala (5) Maharashtra (1)	Mysore (2) Punjab (6) Uttar Pradesh (1) Pondicherry (1)

STATEMENT V.7

Classification of districts according to proportion of rural industrial establishments using electricity expressed as percentage of all rural workshops and factories (restricted to districts in which the percentage is 1 or more)—concld.

Range of use			State (Number of districts within brackets)	
1			2	
3	3·03-4·85 per cent.	Moderately high	Bihar (2) Gujarat (1) Madras (3)	Mysore (5) Uttar Pradesh (9)
4	2·02-2·96 per cent.	Moderate	Andhra Pradesh (4) Assam (1) Bihar (1) Gujarat (1) Kerala (1) Madras (2)	Maharashtra (2) Mysore (2) Punjab (4) Uttar Pradesh (2) West Bengal (1) Pondicherry (1) Tripura (1)
5	1·01-1·97 per cent.	Low	Andhra Pradesh (3) Assam (4) Bihar (5) Gujarat (1) Jammu and Kashmir (1) Kerala (1) Madras (6)	Maharashtra (2) Mysore (2) Punjab (4) Rajasthan (4) Uttar Pradesh (6) West Bengal (4) Andaman and Nicobar Islands (1)

(*Note*—There are no districts within the ranges 1·97-2·01, 2·97-3·02 and 4·86-5·15)

Reduced in terms of States the above Statement reads as follows:

STATEMENT V.8

States classified by districts according to proportion of electricity used in industrial establishments

State	Total districts	Total districts above 1%	Number of districts				
			10%+	5-10%	3-5%	2-3%	1-2%
1	2	3	4	5	6	7	8
Andhra Pradesh	20	7	..	..	..	4	3
Assam	11	5	..	..	..	1	4
Bihar	17	8	..	..	2	1	5
Gujarat	17	4	..	1	1	1	1
Jammu and Kashmir	9	1	..	..	..	..	1
Kerala	9	7	..	5	..	1	1
Madras	13	12	1	..	3	2	6
Maharashtra	26	5	..	1	..	2	2
Mysore	19	14	3	2	5	2	2
Punjab	19	14	..	6	..	4	4
Rajasthan	26	4	..	..	..	..	4
Uttar Pradesh	54	18	..	1	9	2	6
West Bengal	16	5	..	..	..	1	4
Andaman and Nicobar Islands	1	1	..	..	..	..	1
Pondicherry	4	2	..	1	..	1	..
Tripura	1	1	..	..	..	1	..

The most advanced state in point of rural electricity is of course Madras (12 out of 13 districts having substantial numbers of rural workshops and factories running on electricity), followed closely behind by Kerala (7 out of 9), Mysore (14 out of 19) and Punjab (14 out of 19). Three more states follow some way behind: Bihar (8 out of 17), Andhra Pradesh (7 out of 20) and Assam (5 out of 11). Uttar Pradesh (18 out of 54) and West Bengal (5 out of 16) come next in point of numbers although Gujarat (4 out of 17) seems to use greater quantities of electricity in rural industry than West Bengal (Gujarat has one district each in 3-5 per cent and 5-10 per cent while West Bengal has none). Maharashtra exhibits a low pattern (5 out of 26), and Jammu and Kashmir is very low (1 out of 9). Pondicherry, Tripura and Andaman and Nicobar Islands use some electricity.

It is significant that all the four advanced States, Madras, Kerala, Mysore and

Punjab have several districts each in which more than 5 per cent of rural workshops and factories use electricity. Madras, Mysore and Uttar Pradesh again are the only 3 States in which there are at least several districts in which between 3 and 5 per cent of rural workshops and factories use electricity. There are no districts in the States of Andhra Pradesh, Assam, Rajasthan and West Bengal in which more than 3 per cent of rural establishments use electricity.

The total number of districts in India including Pondicherry, Tripura and Andaman and Nicobar Islands in each of which more than 1 per cent of all rural establishments use electricity is thus 108 out of a total of 329, or less than a third. The remaining 221 districts either use none or negligible (0 to less than 1 per cent) quantities of electricity. The districts which have returned not a single electrified industrial establishment in rural areas are as follows :

STATEMENT V.9

Districts in which the proportion of electrified rural workshops and factories is nil

State	Districts
Assam	Mizo Hills
Gujarat	Dangs
Jammu and Kashmir	Ladakh, Doda, Udhampur, Poonch
Madhya Pradesh	Sidhi, Rajgarh, Seoni, Tikamgarh, Mandla, Bastar, Raigarh, Jhabua, Vidisha, Datia, Damoh, Shivpuri, Rewa, Bhind, Dhar
Maharashtra	Bhir, Nanded, Osmanabad
Orissa	Baudh-Khondmals, Koraput, Sundargarh
Punjab	Lahaul and Spiti
Rajasthan	Banswara, Dungarpur, Alwar, Jhalawar, Jaisalmer
Uttar Pradesh	Uttar Kashi, Tehri Garhwal
Himachal Pradesh	Kinnaur
Laccadive, Minicoy and Amindivi Islands	Laccadive, Minicoy and Amindivi Islands
Manipur	Manipur
Dadra and Nagar Haveli	Dadra and Nagar Haveli
Pondicherry	Yanam, Mahe
North-East Frontier Agency	North-East Frontier Agency
Nagaland	Nagaland
SIKKIM	SIKKIM

It will be seen from the Table to Section E below and from the map which shows the districts covered by electricity grid that districts which show nil values have no extension whatsoever to rural areas from the thermal plants such as are installed in their urban areas and those that show very low values (0 to 1 per cent) are either not connected at all to grids or have been only partially or recently connected or are served by small independent generating sets operated by individual industrial establishments. But considering that except in Kerala, Madras and Mysore, rural electrification as a national programme received its first real impetus only in the middle of the last decade, the progress of rural electrification of workshops and factories cannot be said to have been unsatisfactory, particularly when it is borne in mind that (1) in many States rural electrification is still at a very rudimentary stage; (2) in some the programme started as late as 1956 or 1957 and even then half-heartedly, (3) the programme has had retarded progress because of many difficulties in securing raw materials for extension of transmission lines, transformers, step down and rectifier equipment, switch gear, etc., (4) the production of small and fractional horsepower motors for use in small establishments and those of electrically operated small and medium machine tools is still low and imports are restricted, and finally (5) extension services in respect of such details as hire purchase, technical guidance, vocational and operative training, know-how, production techniques, procurement and supply of raw materials, budgeting, finance, subcontracting and marketing are still either rudimentary or do not exist at all.

Table V.1 will afford an idea of the major groups of industry and States which have appreciable proportions of industrial establishments in rural areas.

TABLE V. 2

Classification of districts by use of electricity and liquid fuel in industry in rural areas

State		District	Rural establishments run by		Percentage increase/decrease of rural population 1951-61
			Electricity	Liquid fuel	
1		2	3	4	5
	I Rural percentage of electricity use very high (10·00% and above)				
Madras	1	Nilgiri	10·78	2·21	+3·01
Mysore	2	Chikmagalur	10·44	3·29	+44·70
	3	Gulbarga	11·23	12·85	+17·78
	4	Mandya	13·31	2·53	+25·10
	II Rural percentage of electricity use high (5·00—9·99%)				
Gujarat	5	Kaira	6·06	3·08	+37·76
Kerala	6	Alleppey	5·20	0·15	+15·51
	7	Ernakulam	5·73	2·84	+15·95
	8	Quilon	6·39	0·22	+35·06
	9	Kottayam	6·39	2·98	+34·10
	10	Trichur	9·15	1·71	+21·34
Maharashtra	11	Akola	5·23	4·96	+25·08
Mysore	12	Shimoga	5·94	1·37	+46·42
	13	Bellary	8·27	12·00	+17·22
Punjab	14	Ludhiana	5·16	3·22	+17·66
	15	Gurgaon	5·20	6·91	+25·09
	16	Amritsar	5·24	2·75	+11·72
	17	Gurdaspur	5·25	2·33	+14·62
	18	Jullundur	6·33	2·02	+15·26
	19	Rohtak	8·22	5·18	+26·25
Uttar Pradesh	20	Naini Tal	5·22	3·13	+79·28
Pondicherry	21	Karaikal	7·87	6·69	—12·46
	III Rural percentage of electricity use moderately high (3·00—4·99%)				
Bihar	22	Patna	3·21	0·45	+13·78
	23	Dhanbad	3·38	0·82	+5·13
Gujarat	24	Surat	3·12	4·18	+21·23
Madras	25	Thanjavur	3·20	2·43	+7·47
	26	Kanyakumari	3·39	0·32	+38·77
	27	Chingleput	3·40	1·30	+7·55
Mysore	28	Coorg	3·41	1·39	+31·43
	29	Bidar	3·76	5·17	+26·46
	30	Kolar	4·01	0·62	+17·18
	31	Hassan	4·37	2·68	+25·58
	32	Raichur	4·85	9·79	+26·22
Uttar Pradesh	33	Saharanpur	3·03	6·40	+22·37
	34	Aligarh	3·35	3·18	+17·91
	35	Shahjahanpur	4·13	6·96	+13·89
	36	Dehra Dun	4·22	1·16	+21·62
	37	Bulandshahr	4·34	5·01	+19·82
	38	Pilibhit	4·38	6·35	+23·92
	39	Bijnor	4·51	6·63	+33·11
	40	Moradabad	4·62	0·78	+22·68
	41	Budaun	4·71	4·56	+16·88

TABLE V.2

Classification of districts by use of electricity and liquid fuel in industry in rural areas—contd.

State		District	Rural establishments run by: Electricity	Rural establishments run by: Liquid fuel	Percentage increase/decrease of rural population 1951-61
1		2	3	4	5
		IV Rural percentage of electricity use moderate (2·00—2·99%)			
Andhra Pradesh	42	West Godavari	2·08	4·81	+21·80
	43	Krishna	2·10	2·39	+16·28
	44	Srikakulam	2·22	3·50	+10·55
	45	East Godavari	2·82	3·91	+15·38
Assam	46	Lakhimpur	2·06	12·93	+32·65
Bihar	47	Shahabad	2·03	1·89	+19·08
Gujarat	48	Baroda	2·10	4·96	+23·52
Kerala	49	Palghat	2·99	1·67	+15·05
Madras	50	Coimbatore	2·04	0·19	+0·21
	51	North Arcot	2·13	0·62	+6·06
Maharashtra	52	Thana	2·27	5·11	+27·57
	53	Kolaba	2·96	7·71	+17·11
Mysore	54	Tumkur	2·02	0·19	+17·48
	55	Chitradurga	2·58	1·25	+23·45
Punjab	56	Hoshiarpur	2·04	4·86	+9·93
	57	Ambala	2·42	5·91	+21·80
	58	Karnal	2·71	4·43	+41·27
	59	Kapurthala	2·94	4·02	+14·69
Uttar Pradesh	60	Rampur	2·15	6·52	+44·05
	61	Muzaffarnagar	2·42	6·02	+29·62
West Bengal	62	Darjeeling	2·18	4·11	+31·46
Pondicherry	63	Pondicherry	2·87	2·11	—7·08
Tripura	64	Tripura	2·79	1·44	+74·20
		V Rural percentage of electricity use low (1·00—1·99%)			
Andhra Pradesh	65	Chittoor	1·17	1·19	+11·88
	66	Kurnool	1·23	3·09	+15·34
	67	Visakhapatnam	1·91	4·69	+6·22
Assam	68	Sibsagar	1·13	15·42	+22·06
	69	Darrang	1·44	10·46	+37·54
	70	United Khasi and Jaintia Hills	1·54	1·54	+15·89
	71	Garo Hills	1·92	..	+23·24
Bihar	72	Hazaribagh	1·11	0·45	+21·68
	73	Bhagalpur	1·22	1·06	+16·63
	74	Singhbhum	1·55	0·68	+14·00
	75	Palamau	1·60	0·27	+19·27
	76	Gaya	1·90	0·84	+18·54
Gujarat	77	Mehsana	1·06	7·41	+28·42
Jammu and Kashmir	78	Jammu	1·60	2·11	+2·86
Kerala	79	Trivandrum	1·17	0·08	+26·97
Madras	80	Tirunelveli	1·17	0·46	+10·84
	81	Salem	1·17	0·48	+9·90
	82	Ramanathapuram	1·23	0·69	+18·08
	83	Madurai	1·33	0·27	+5·22
	84	South Arcot	1·75	2·07	+8·42
	85	Tiruchirapalli	1·92	1·03	+6·42
Maharashtra	86	Amravati	1·14	7·21	+21·70
	87	Sangli	1·39	4·40	+45·93

TABLE V.2

Classification of districts by use of electricity and liquid fuel in industry in rural areas—concld.

State		Districts	Rural establishments run by: Electricity	Rural establishments run by: Liquid fuel	Percentage increase/decrease of rural population 1951-61
1		2	3	4	5
		V Rural percentage of electricity use low (1·00—1·99%)—concld.			
Mysore	88	Mysore	1·09	0·18	+20·81
	89	Bangalore	1·84	0·08	— 5·43
Punjab	90	Sangrur	1·01	9·69	+29·40
	91	Hissar	1 43	15·38	+48·01
	92	Patiala	1·49	5·80	+39·49
	93	Ferozepur	1·64	10·47	+23·05
Rajasthan	94	Jalor	1·08	9·28	+32·07
	95	Udaipur	1·62	12·09	+24·73
	96	Kota	1·74	10·43	+23·31
	97	Ganganagar	1·89	27·54	+64·59
Uttar Pradesh	98	Chamoli	1·04	..	+16·67
	99	Ghazipur	1·08	6·74	+25·64
	100	Bareilly	1·39	3·91	+16·53
	101	Ballia	1·53	7·75	+18·60
	102	Meerut	1·59	2·50	+17·66
	103	Kheri	1·97	12·40	+21·17
West Bengal	104	24-Parganas	1·02	4·19	+32·05
	105	Howrah	1·31	5·95	+11·42
	106	Birbhum	1·49	3·69	+34·82
	107	Burdwan	1·73	5·86	+35·02
Andaman and Nicobar Islands	108	Andaman and Nicobar Islands	1·52	16·67	+115·50

C. Classification of districts by use of electricity and liquid fuel in industry in urban areas

This Section is the counterpart of Section B for urban areas. The statistics are presented in Table V.3. The following is an abstract of the Table :

STATEMENT V.10

Classification of districts according to proportion of urban industrial establishments using electricity expressed as percentage of all urban workshops and factories (restricted to districts in which the percentage is 1 or more)

State	Total No. of districts	Range of use: Total	Above 20%	10-20%	5-10%	3-5%	1-3%
1	2	3	4	5	6	7	8
Andhra Pradesh	20	15	..	1	3	4	7
Assam	11	9	..	1	1	3	4
Bihar	17	12	..	..	2	1	9
Gujarat	17	16	2	4	6	1	3
Jammu and Kashmir ..	9	3	..	..	2	..	1
Kerala	9	9	..	..	2	4	3
Madhya Pradesh	43	13	..	1	2	2	8
Madras	13	13	..	1	4	6	2
Maharashtra	26	18	2	..	4	5	7
Mysore	19	18	1	4	4	4	5
Orissa	13	..	..	..	..	..	..
Punjab	19	17	3	6	5	3	..
Rajasthan	26	21	..	6	6	2	7
Uttar Pradesh	54	33	..	4	8	12	9
West Bengal	16	11	1	1	3	1	5
Delhi	1	1	1	..	..	..	..
Pondicherry	4	2	..	1	..	1	..
Andaman and Nicobar Islands	1	1	..	1	..	..	..
Tripura	1	1	..	..	..	..	1

The above statement will show how in Orissa as a whole and in quite a few districts of several States the proportion of urban establishments using electricity is less than 1 per cent of all urban establishments. It is only in Kerala and Madras that there are no districts in which the proportion is less than one per cent. Gujarat (Dangs) and Mysore (Bijapur) have one district each where the proportion is less than 1 per cent. The following statement shows the districts under each State in each of which the proportion of urban establishments using electricity is less than 1 per cent:

STATEMENT V.11

Districts in each of which the proportion of urban establishments using electricity is less than 1 per cent

State	Districts
Andhra Pradesh	Cuddapah, Mahbubnagar, Medak, Karimnagar, Nalgonda.
Assam	United Mikir and North Cachar Hills, Mizo Hills.
Bihar	Darbhanga, Saharsa, Purnea, Santal Parganas, Palamau.
Gujarat	Dangs (entirely rural).
Jammu and Kashmir	Anantnag, Ladakh, Doda, Udhampur, Kathua, Poonch.
Madhya Pradesh	Morena, Bhind, Datia, Shivpuri, Guna, Tikamgarh, Chhatarpur, Panna, Satna, Rewa, Shahdol, Sidhi, Mandsaur, Jhabua, Dhar, Dewas, Shajapur, Rajgarh, Vidisha (Bhilsa), Raisen, Sagar, Damoh, Narsimhapur, Mandla, Seoni, Balaghat, Surguja, Bilaspur, Raigarh, Bastar.
Maharashtra	Ratnagiri, Satara, Aurangabad, Parbhani, Bhir, Osmanabad, Bhandara, Chanda.
Mysore	Bijapur.
Orissa	All the 13 districts.
Punjab	Kangra, Lahaul and Spiti (entirely rural).
Rajasthan	Sikar, Tonk, Jaisalmer, Nagaur, Barmer, Chitorgarh.
Uttar Pradesh	Uttar Kashi, Tehri Garhwal, Almora, Mainpuri, Fatehpur, Jhansi, Jalaun, Hamirpur, Unnao, Bara Banki, Faizabad, Sultanpur, Pratapgarh, Basti, Azamgarh, Jaunpur, Ballia, Ghazipur, Mirzapur.
West Bengal	Jalpaiguri West Dinajpur, Malda, Birbhum, Midnapore.
Himachal Pradesh	Mandi, Sirmur, Chamba, Mahasu, Bilaspur.
Manipur	Manipur.
Nagaland	Kohima, Mokokchung.
Pondicherry	Yanam, Mahe.
Sikkim	Sikkim.

The map brings out rather forcefully the geographical regions in which industrial electricity has not made much of a mark even in urban areas. It is significant that there should be large regions in Maharashtra, West Bengal and Uttar Pradesh, which in common parlance pass for very industrialized states, in which the proportion of electrified urban industrial establishments is less than one per cent.

TABLE V.3

Classification of districts by use of electricity and liquid fuel in industry in urban areas

State	District	Urban establishments run by: Electricity	Urban establishments run by: Liquid fuel	Percentage increase/decrease of urban population 1951-61
1	2	3	4	5
I Urban ratio of electricity use very high (above 20·00%)				
Gujarat	Ahmedabad	22·03	6·70	+35·70
	Surat	36·46	1·09	+33·10
Maharashtra	Greater Bombay	27·70	0·06	+39·95
	Thana	32·63	2·11	+31·92
Mysore	Bangalore	25·78	0·41	+48·50
Punjab	Ludhiana	25·52	0·42	+52·87
	Amritsar	29·35	0·06	+13·59
	Gurdaspur	31·63	2·13	+22·13
West Bengal	Calcutta	27·00	0·15	+8·48
Delhi	Delhi	51·97	2·68	+64·17

TABLE V.3

Classification of districts by use of electricity and liquid fuel in industry in urban areas—contd.

State	District	Urban establishments run by		Percentage increase/decrease of urban population 1951-61
		Electricity	Liquid fuel	
1	2	3	4	5
	II Urban ratio of electricity use high (10·00—19·99%)			
Andhra Pradesh	Hyderabad	16·26	0·54	+8·22
Assam	United Khasi and Jaintia Hills	11·02	1·02	+85·59
Gujarat	Jamnagar	10·78	2·99	+36·51
	Kaira	13·52	0·76	—15·75
	Rajkot	15·80	1·15	+21·97
	Baroda	16·79	1·04	+33·74
Madhya Pradesh	Indore	10·95	0·41	+25·39
Madras	Madras	15·18	0·29	+22·11
Mysore	Shimoga	10·74	0·04	+77·98
	Hassan	10·91	0·59	+23·04
	Chikmagalur	11·90	0·09	+34·37
	Bellary	13·34	1·03	+22·12
Punjab	Ferozepur	11·58	1·79	+45·42
	Hissar	13·07	3·15	+43·73
	Gurgaon	16·50	1·82	+46·70
	Ambala	17·68	1·58	+75·49
	Jullundur	17·68	0·34	+18·88
	Kapurthala	18·31	2·01	+23·00
Rajasthan	Jodhpur	10·65	1·61	+18·78
	Bikaner	12·15	0·18	+26·20
	Bundi	12·16	3·72	+8·34
	Sirohi	12·82	4·62	+28·78
	Dungarpur	13·04	0·62	—1·53
	Churu	13·58	6·94	+12·39
Uttar Pradesh	Lucknow	12·41	0·08	+27·44
	Kanpur	13·05	2·50	+35·71
	Bareilly	16·27	1·40	+16·44
	Dehra Dun	18·25	2·53	+15·29
West Bengal	Howrah	19·05	0·33	+57·97
Pondicherry	Karaikal	10·63	0·40	N.A.
Andaman and Nicobar Islands	Andaman and Nicobar Islands	15·15	1·51	+75·63
	III Urban ratio of electricity use moderate (5·00—9·99%)			
Andhra Pradesh	West Godavari	5·27	0·95	—5·22
	East Godavari	5·79	0·22	+5·07
	Kurnool	6·96	2·30	+30·73
Assam	Nowgong	5·24	3·86	+86·56
Bihar	Patna	5·69	0·14	+29·73
	Dhanbad	7·37	0·49	+264·73
Gujarat	Mehsana	5·43	2·95	—3·62
	Panchmahals	7·08	0·88	+12·91
	Junagadh	7·38	1·91	+7·02
	Surendranagar	8·17	1·86	+18·43
	Bhavnagar	8·46	2·27	+24·23
	Broach	9·56	1·76	+3·72
Jammu and Kashmir	Srinagar	5·75	0·02	+17·69
	Jammu	6·99	0·12	+35·24
Kerala	Ernakulam	4·83	0·07	+48·02
	Kottayam	7·59	0·11	+4·16
Madhya Pradesh	Gwalior	7·70	1·54	+30·85
	East Nimar	8·43	0·84	+26·53
Madras	Coimbatore	5·08	0·07	+62·75
	Ramanathapuram	5·91	0·08	+11·31
	Madurai	7·09	0·09	+26·13
	Nilgiri	7·98	0·59	+102·10

TABLE V.3

Classification of districts by use of electricity and liquid fuel in industry in urban areas—contd.

State	District	Urban establishments run by		Percentage increase/decrease of urban population 1951-61
		Electricity	Liquid fuel	
1	2	3	4	5
	III Urban ratio electricity use moderate—(5·00—9·99%)—concld.			
Maharashtra	Dhulia	5·24	2·37	+10·43
	Akola	6·11	0·74	+25·02
	Poona	8·41	0·57	+12·60
	Nasik	9·61	5·61	+28·39
Mysore	Gulbarga	5·80	4·70	+4·02
	Coorg	5·82	2·40	+162·62
	Mandya	6·20	..	+28·67
	Kolar	8·07	0·11	+5·07
Punjab	Bhatinda	5·61	7·72	+57·63
	Sangrur	5·81	3·41	+22·42
	Karnal	5·82	0·74	+25·71
	Patiala	6·98	2·78	+22·54
	Rohtak	8·22	0·23	+28·76
Rajasthan	Jhunjhunu	5·56	6·04	—9·27
	Kota	7·02	3·16	+43·11
	Ganganagar	7·47	8·46	+64·94
	Jaipur	8·43	2·15	+14·69
	Ajmer	9·32	3·10	+11·60
	Udaipur	9·85	1·82	+8·12
Uttar Pradesh	Varanasi	5·11	0·37	+33·11
	Shahjahanpur	5·16	1·75	+4·78
	Saharanpur	6·19	3·37	+10·23
	Allahabad	7·07	0·69	+21·26
	Aligarh	7·27	1·66	—0·97
	Moradabad	8·47	1·75	+10·43
	Agra	8·86	1·69	+34·17
	Rampur	8·87	0·33	—16·27
West Bengal	Burdwan	5·37	0·28	+73·20
	Darjeeling	6·62	0·46	+53·09
	24-Parganas	8·64	0·25	+64·29
	IV Urban ratio of electricity use low (3·00—4·99%)			
Andhra Pradesh	Guntur	3·02	0·31	+24·91
	Anantapur	3·90	0·32	+27·49
	Visakhapatnam	4·72	0·39	+35·48
	Krishna	4·77	0·23	+31·92
Assam	Lakhimpur	3·37	4·87	+146·21
	Cachar	3·96	3·49	+57·74
	Kamrup	4·88	3·17	+197·10
Bihar	Singhbhum	4·04	0·10	+52·52
Gujarat	Kutch	4·41	0·97	+18·71
Kerala	Kozhikode	3·24	0·24	+61·25
	Alleppey	3·71	0·05	+39·80
	Trivandrum	3·98	0·05	+46·05
	Trichur	4·60	0·07	+13·08
Madhya Pradesh	Ujjain	3·22	0·87	+21·83
	Sehore	3·92	0·33	+109·97
Madras	Salem	3·10	0·22	+30·98
	North Arcot	3·59	0·08	+19·50
	South Arcot	3·68	0·61	+19·81
	Chingleput	3·85	0·23	+34·22
	Tiruchirapalli	4·53	0·24	+16·25
	Thanjavur	4·58	0·21	+14·47

TABLE V.3

Classification of districts by use of electricity and liquid fuel in industry in urban areas—contd

State	District	Urban establishments run by		Percentage increase/ decrease of urban population, 1951-61
		Electricity	Liquid fuel	
1	2	3	4	5
	IV Urban ratio of electricity use low (3·00—4·99%)—concld.			
Maharashtra	Yeotmal	3·46	0·75	+23·98
	Wardha	3·92	0·20	+19·20
	Nagpur	3·94	0·18	+36·36
	Kolhapur	4·22	2·16	+10·93
	Amravati	4·96	0·07	+13·87
Mysore	Belgaum	3·41	1·39	—13·90
	Mysore	4·19	0·02	+7·88
	Dharwar	4·51	2·29	+6·46
	Chitradurga	4·87	0·12	+39·86
Punjab	Simla	3·59	0·36	—5·24
	Hoshiarpur	4·11	0·17	+39·30
	Mahendragarh	4·45	3·61	+34·42
Rajasthan	Alwar	4·03	1·92	—11·07
	Bharatpur	4·90	4·97	+4·49
Uttar Pradesh	Hardoi	3·03	0·94	—6·82
	Garhwal	3·17	0·64	+53·25
	Muzaffarnagar	3·28	0·78	—24·89
	Kheri	3·28	3·04	—9·92
	Etah	3·32	1·76	—9·56
	Sitapur	3·44	0·47	+17·73
	Bijnor	3·45	1·19	—17·22
	Meerut	3·50	0·70	+24·06
	Bahraich	3·71	1·17	+11·16
	Naini Tal	3·83	4·43	+51·59
	Mathura	4·15	0·40	—2·73
	Bulandshahr	4·18	6·03	—5·81
West Bengal	Hooghly	4·90	0·12	+46·71
Pondicherry	Pondicherry	4·81	0·34	N.A.
	V Urban ratio of electricity use very low (1·00—2·99%)			
Andhra Pradesh	Khammam	1·04	0	+6·76
	Nizamabad	1·07	0·50	+7·93
	Warangal	1·18	0·18	+14·09
	Adilabad	1·57	0·78	+27·37
	Nellore	1·65	0·09	+9·84
	Srikakulam	2·01	0·28	+7·26
	Chittoor	2·37	0·17	+45·23
Assam	Goalpara	1·18	4·05	+151·40
	Darrang	2·01	2·98	+124·02
	Sibsagar	2·47	1·85	+95·08
	Garo Hills	2·89	0	∝
Bihar	Champaran	1·00	0·42	+38·89
	Saran	1·21	0·46	+18·83
	Hazaribagh	1·26	0·04	+51·12
	Shahabad	1·31	0·16	+28·31
	Muzaffarpur	1·43	0·27	+39·15
	Bhagalpur	1·83	0·27	+52·99
	Monghyr	2·01	0·63	+40·46
	Gaya	2·27	0·10	+22·34
	Ranchi	2·36	0·27	+61·92
Gujarat	Sabarkantha	2·14	2·86	+24·88
	Amreli	2·43	4·35	+21·06
	Banaskantha	2·75	1·90	+36·32
Jammu and Kashmir	Baramulla	1·50	0·04	+76·35
Kerala	Cannanore	1·57	0·06	+141·09
	Palghat	2·47	0·19	+0·85
	Quilon	2·83	0	+0·56

TABLE V.3

Classification of districts by use of electricity and liquid fuel in industry in urban areas—concld.

State	District	Urban establishments run by		Percentage increase/ decrease of urban population, 1951-61
		Electricity	Liquid fuel	
1	2	3	4	5
	V—Urban ratio of electricity use very low (1·00—2·99%)—concld.			
Madhya Pradesh	Betul	1·04	0·21	+39·50
	Chhindwara	1·11	0·08	+103·05
	West Nimar	1·13	1·69	+47·68
	Hoshangabad	1·43	0·81	+24·19
	Ratlam	1·97	1·05	+23·26
	Durg	2·12	0·06	+200·53
	Raipur	2·19	0·25	+81·17
	Jabalpur	2·31	0·04	+58·18
Madras	Kanyakumari	2·80	0·02	—30·56
	Tirunelveli	2·82	0·05	+5·11
Maharashtra	Nanded	1·03	1·01	+12·70
	Sholapur	1·81	1·21	+10·56
	Kolaba	1·85	3·51	+11·09
	Sangli	2·01	0·75	—32·93
	Ahmadnagar	2·13	0·57	—12·61
	Buldhana	2·22	0·51	+22·17
	Jalgaon	2·75	1·93	—15·02
Mysore	Bidar	1·41	2·92	—10·60
	North Kanara	1·44	1·21	—2·18
	Tumkur	1·77	0·01	+31·42
	South Kanara	1·81	0·20	+40·06
	Raichur	1·90	3·54	—23·04
Rajasthan	Barmer	0·13	1·27	+21·19
	Jhalawar	1·02	4·15	—23·78
	Jalor	1·21	0·84	—11·90
	Sawai Madhopur	1·22	3·03	—0·10
	Pali	1·30	0·59	—14·86
	Bhilwara	1·72	0·79	—6·03
	Banswara	2·38	2·04	+26·14
Uttar Pradesh	Banda	1·00	1·19	+7·92
	Deoria	1·01	2·13	—20·94
	Gonda	1·57	1·04	+10·45
	Pilibhit	1·62	0·42	+12·24
	Rae Bareli	1·64	0·85	—21·02
	Gorakhpur	1·96	1·79	+12·43
	Etawah	2·42	2·18	+6·10
	Budaun	2·79	1·83	—18·02
	Farrukhabad	2·82	1·99	+2·30
West Bengal	Bankura	1·18	0·19	+29·11
	Murshidabad	1·25	0·19	+44·87
	Cooch Behar	1·39	0·40	+42·38
	Purulia	1·45	0·82	+17·85
	Nadia	2·94	0·11	+51·53
Tripura	Tripura	2·79	1·44	+121·05

D. The use of electricity in small establishments in Class I and Class II cities and towns

Concentration of electricity use in small industrial establishments employing a unit of 5 persons.

The statement shown on facing page gives an account of the proportion of establishments run on electricity in Class I and Class II towns and the proportion in them of small establishments run on electricity employing up to 5 persons.

STATEMENT V.12

Classification by States of cities and towns of Classes I and II (1) in which the proportion of small establishments (1-5 persons) running on electricity is less than half of total establishments employing electricity and (2) the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small establishments employing 1-5 persons

Functional Type
C=predominantly 'Services'
B=predominantly 'Trade and Transport'
A=predominantly 'Industrial'

Class I=Population 100,000 or more.
Class II=Population 50,000—99,999

	Cities and towns in which the proportion of small establishments (1-5 persons) running on electricity is less than half of total establishments employing electricity			Cities and towns in which the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small establishments employing 1-5 persons		
State	Town	Class	Functional type	Town	Class	Functional type
1	2	3	4	5	6	7
Andhra Pradesh	Visakhapatnam	I	C	Vijayawada	I	B
	Rajahmundry	I	B	Guntur	I	A
	Bandar	I	C	Warangal	I	A
	Tenali	II	B	Kakinada	I	C
	Vizianagaram	II	C	Eluru	I	A
	Kothagudem	II	A	Nellore	I	C
				Kurnool	I	A
				Nizamabad	II	A
				Adoni	II	A
				Proddatur	II	A
Assam	Gauhati	I	C			
	Shillong	II	C			
	Dibrugarh	II	B			
Bihar				Jamshedpur	I	A
				Monghyr	II	A
Gujarat	Navsari	II	A	Ahmedabad	I	A
				Baroda	I	A
				Surat	I	A
				Rajkot	I	C
				Bhavnagar	I	A
				Jamnagar	I	C
Kerala	Calicut	I	C	Trivandrum	I	C
	Quilon	II	A	Alleppey	I	A
				Ernakulam	II	C
				Mattancherry	II	B
				Palghat	II	C
				Trichur	II	C
				Kottayam	II	C
Madhya Pradesh	Bhilainagar	II	A	Raipur	I	B
Madras	Madras	I	C	Madurai	I	A
	Coimbatore	I	A	Tiruchirapalli	I	A
	Tuticorin	I	A	Salem	I	A
	Dindigul	II	A	Thanjavur	I	C
	Valparai	II	A	Nagercoil	I	A
	Tiruppur	II	A	Kumbakonam	II	A
	Erode	II	B	Tirunelveli	II	A
	Nagapattinam	II	B	Cuddalore	II	C
	Virdunagar	II	B	Rajapalayam	II	A
	Pollachi	II	C	Palayamcottai	II	C
				Karur	II	A
				Pudukottai	II	C
				Aruppukkottai	II	A
				Ootacamund	II	C

STATEMENT V.12

Classification by States of cities and towns of Classes I and II (1) in which the proportion of small establishments (1-5 persons) running on electricity is less than half of total establishments employing electricity and (2) the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small establishments employing 1-5 persons—concld.

	Cities and towns in which the proportion of small establishments (1-5 persons) running on electricity is less than half of total establishments employing electricity			Cities and towns in which the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small establishments employing 1-5 persons		
State	Town	Class	Functional type	Town	Class	Functional type
1	2	3	4	5	6	7
Maharashtra	Greater Bombay	I	A	Nagpur	I	A
	Ichalkaranji	II	A	Poona	I	A
				Sholapur	I	A
				Kolhapur	I	A
				Thana	I	A
Mysore	Mangalore	I	A	Bangalore	I	A
	Bijapur	II	C	Mysore	I	C
	Gadag Betgeri	II	A	Kolar Gold Fields	I	A
				Davanagere	II	A
Orissa	Rourkela	II	A	Cuttack	I	C
Punjab	Amritsar	I	A	Ludhiana	I	A
	Jullundur	I	A	Patiala	I	C
	Chandigarh	II	C	Pathankot	II	C
	Batala	II	A	Yamunanagar	II	A
Uttar Pradesh	Mirzapur-*cum*-Vindhyachal	I	A	Kanpur	I	A
	Ghaziabad	II	A	Lucknow	I	C
	Pilibhit	II	C	Agra	I	A
				Gorakhpur	I	B
				Firozabad	II	A
				Amroha	II	A
				Bahraich	II	C
				Sitapur	II	C
West Bengal	Calcutta	I	B	Kharagpur	I	B
	Howrah	I	A	Burdwan	I	C
	South Suburban	I	A	Asansol	II	B
	Bhatpara	I	A	Serampore	II	A
	Baly	I	A	Hooghly-Chinsurah	II	C
	Garden Reach	I	A	Titagar	II	A
	Kamarhati	I	A	Chandannagar	II	A
	South Dum-Dum	I	A	Bankura	II	C
	Baranagar	I	A	Midnapur	II	C
	Panihati	II	A			
	Siliguri	II	B			
	Burnpur	II	A			
	Barrackpur	II	A			
Delhi	Delhi	I	C			
	New Delhi	I	C			
Manipur	Imphal	II	A			

The statement shown on facing page shows the classification of cities and towns of Classes I and II by functional types together with an account of (1) those in which the proportion of small establishments (1-5 persons) running on

electricity is less than half of total establishments employing electricity and (2) those in which the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small electrified establishments employing 1-5 persons.

STATEMENT V.13

Statewise classification of cities and towns of Classes I and II by functional types sub-classified by certain characteristics

Functional type
C=predominantly 'Services'
B=predominantly 'Trade and Transport'
A= predominantly 'Industrial'

Class I=Population 100,000 or more
Class II=Population 50,000—99,999

State	Functional type C			Functional type B			Functional type A		
	Total	Class I	Class II	Total	Class I	Class II	Total	Class I	Class II
1	2	3	4	5	6	7	8	9	10
Andhra Pradesh	7	5	2	3	2	1	9	4	5
Assam	2	1	1	1	..	1	..	..	..
Bihar	6	4	2	1	..	1	7	3	4
Gujarat	6	2	4	..	..	..	9	4	5
Jammu and Kashmir ..	2	2	..	..	..	..	..	..	..
Kerala	6	2	4	1	..	1	2	1	1
Madhya Pradesh	1	..	1	3	1	2	8	5	3
Madras	8	2	6	3	..	3	17	7	10
Maharashtra	7	3	4	3	1	2	16	9	7
Mysore	8	2	6	..	..	..	7	4	3
Orissa	3	1	2	..	..	..	1	..	1
Punjab	7	2	5	2	..	2	8	3	5
Rajasthan	6	5	1	1	1	..	3	..	3
Uttar Pradesh	19	6	13	4	3	1	12	8	4
West Bengal	7	1	6	4	2	2	20	8	12
Delhi	2	2	..	..	..	..	..	..	..
Manipur	..	..	..	..	..	..	1	..	1
Tripura	1	..	1	..	..	..	..	..	..
Total (244)	**98**	**40**	**58**	**26**	**10**	**16**	**120**	**56**	**64**
(1) Towns in which the proportion of small establishments (1-5) running on electricity is less than half of total establishments employing electricity ..	**13**	**7**	**6**	**8**	**2**	**6**	**31**	**15**	**16**
2) Towns in which the proportion of electrified establishments employing more than 5 persons is more than half as much again but less than double the number of small electrified establishments employing 1-5 persons	25	11	14	6	4	2	40	24	16
Total (123)	**38**	**18**	**20**	**14**	**6**	**8**	**71**	**39**	**32**

Numerically speaking, the small establishments employing up to 5 persons, running on electricity, enjoy the upper hand over larger employment brackets in Service towns of Class II population size. In Class I Service cities, however, establishments running on electricity and employing more than 5 persons are dominant in a numerical majority. In Trade and Transport towns, cities in which the medium and large establishments, running on electricity, are dominant, are in a numerical minority. It is in industrial towns, however, that medium and large establishments are clearly dominant in the majority of Class I cities and at least half of Class II towns. In the overall view slightly more than half (123 out of 240) of Classes I and II towns enjoy marked numerical predominance in

establishments running on electricity and employing more than 5 persons over those employing up to a limit of 5 persons.

The following Table V.4 also shows that single person establishments running on electricity are by no means numerous. On the contrary they are invariably small in number. This shows that the single craftsman, with no entrepreneural or capital backing, finds it difficult to learn new techniques of production, acquire new tools or scrape up enough money to go in for technological improvement and increased production, added to which possibly are difficulties of securing enough orders, raw material, running capital and marketing. All these contribute to the noticeably small size of the single person enterprise employing electricity.

TABLE V.4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by			Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
			Total	1 person	2-5 persons		
1	2	3	4	5	6	7	8
ANDHRA PRADESH							
Class I							
1 Hyderabad	C	5,671	1,114	66	682	19·64	13·19
2 Vijayawada	B	1,470	235	36	89	15·99	8·50
3 Guntur	A	720	124	10	59	17·22	9·58
4 Visakhapatnam	C	371	46	1	21	12·40	5·93
5 Warangal	A	1,119	79	21	26	7·06	4·20
6 Rajahmundry	B	611	112	4	42	18·33	7·53
7 Kakinada	C	742	107	17	37	14·42	7·28
8 Eluru	A	1,288	123	5	77	9·55	6·37
9 Nellore	C	697	73	14	26	10·47	5·74
10 Bandar (Masulipatnam)	C	433	57	9	19	13·16	6·47
11 Kurnool	A	377	48	5	25	12·73	7·96
Class II							
12 Nizamabad	A	472	40	4	17	8·47	4·45
13 Tenali	B	491	65	4	28	13·24	6·52
14 Vizianagaram	C	702	73	5	25	10·40	4·27
15 Adoni	A	421	68	17	19	16·15	8·55
16 Kothagudem	A	107	4	..	2	3·74	1·87
17 Vijayapuri	A	111	10	..	8	9·01	7·21
18 Anantapur	C	219	53	10	28	24·20	17·35
19 Proddatur	A	1,225	45	4	19	3·67	1·88
ASSAM							
Class I							
1 Gauhati	C	429	61		19	14·22	4·43
Class II							
2 Shillong	C	133	32		9	24·06	6·77
3 Dibrugarh	B	207	30		2	14·49	5·80
BIHAR							
Class I							
1 Patna	C	3,548	515	108	244	14·52	9·92
2 Jamshedpur	A	1,654	249	49	117	15·05	10·04
3 Gaya	C	2,128	235	40	162	11·04	9·49
4 Bhagalpur	A	2,802	177	44	86	6·32	4·64
5 Ranchi	A	1,063	279	50	146	26·25	18·44
6 Muzaffarpur	C	884	117	36	63	13·24	11·20
7 Darbhanga	C	1,290	68	15	44	5·27	4·57

TABLE V.4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment—contd.

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by			Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
			Total	1 person	2-5 persons		
1	2	3	4	5	6	7	8
BIHAR—*concld.*							
Class II							
8 Monghyr	A	697	75	7	42	10·76	7·03
9 Bihar	A	1,010	66	10	50	6·53	5·94
10 Arrah	C	859	51	10	37	5·94	5·47
11 Chapra	C	775	65	18	41	8·39	7·61
12 Katihar	B	421	48	19	17	11·40	8·55
13 Dhanbad	A	340	97	27	46	28·53	21·47
14 Jamalpur	A	510	35	5	24	6·86	5·69
GUJARAT							
Class I							
1 Ahmedabad	A	7,571	2,195	249	1,110	28·99	17·95
2 Baroda	A	2,180	621	151	262	28·49	18·94
3 Surat	A	6,365	4,189	207	2,308	65·81	39·51
4 Rajkot	C	1,981	551	121	226	27·81	17·52
5 Bhavnagar	A	354	198	19	87	55·93	29·94
6 Jamnagar	C	687	317	67	134	46·14	29·26
Class II							
7 Nadiad	A	694	193	28	105	27·81	19·16
8 Porbandar	A	553	130	35	74	23·51	19·71
9 Junagadh	C	501	123	42	59	24·55	20·16
10 Broach	C	562	85	19	55	15·12	13·17
11 Godhra	C	541	115	35	63	21·26	18·11
12 Patan	A	705	82	18	54	11·63	10·21
13 Navsari	A	237	153	17	51	64·56	28·69
14 Cambay	A	1,153	557	117	276	36·81	25·97
15 Morvi	C	478	115	39	41	24·06	16·74
JAMMU AND KASHMIR							
Class I							
1 Srinagar	C	3,096	366	58	189	11·82	7·98
2 Jammu	C	1,150	261	70	125	22·70	16·96
KERALA							
Class I							
1 Trivandrum	C	1,513	186	27	89	12·29	7·67
2 Calicut	C	1,395	177	3	62	12·69	4·66
3 Alleppey	A	981	149	12	70	15·19	8·56
Class II							
4 Ernakulam	C	1,225	150	5	78	12·24	6·78
5 Quilon	A	771	155	9	63	20·10	9·34
6 Mattancherry	B	686	78	4	39	11·37	6·27
7 Palghat	C	783	74	14	25	9·45	4·98
8 Trichur	C	681	171	21	89	25·11	16·15
9 Kottayam	C	503	154	7	77	30·62	16·70
MADHYA PRADESH							
Class I							
1 Indore	A	3,600	777	211	367	21·58	16·06
2 Jabalpur	A	2,939	830	288	352	28·24	21·78
3 Gwalior	A	2,318	309	71	184	13·33	11·00
4 Bhopal	A	1,536	313	59	204	20·38	17·12
5 Ujjain	A	1,491	238	99	100	15·96	13·35
6 Raipur	B	1,106	279	57	121	25·23	16·09

TABLE V.4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment—contd.

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by			Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
			Total	1 person	2-5 persons		
1	2	3	4	5	6	7	8
MADHYA PRADESH—*concld.*							
Class II							
7 Sagar	A	6,136	223	88	91	3·63	2·92
8 Ratlam	B	1,202	87	18	54	7·24	5·99
9 Bilaspur	B	820	76	13	44	9·27	6·95
10 Bhilainagar	A	367	86	4	18	23·43	5·99
11 Burhanpur	A	1,699	487	119	289	28·66	24·01
12 Khandwa	C	621	84	24	41	13·53	10·47
MADRAS							
Class I							
1 Madras	C	10,874	1,651	96	678	15·18	7·12
2 Madurai	A	6,771	532	37	240	7·86	4·09
3 Coimbatore	A	3,579	377	24	157	10·53	5·06
4 Tiruchirapalli	A	2,241	301	26	152	13·43	7·94
5 Salem	A	10,088	516	45	261	5·11	3·03
6 Tuticorin	A	783	148	15	57	18·90	9·20
7 Vellore	A	1,284	107	11	62	8·33	5·69
8 Thanjavur	C	1,354	109	17	54	8·05	5·24
9 Nagercoil	A	1,578	110	6	56	6·97	3·93
Class II							
10 Dindigul	A	1,007	157	3	72	15·59	7·45
11 Kanchipuram	A	849	115	9	79	13·55	10·37
12 Kumbakonam	A	1,853	187	17	104	10·09	6·53
13 Tirunelveli	A	1,422	150	23	71	10·55	6·61
14 Valparai	A	172	31	..	1	18·02	0·58
15 Tiruppur	A	1,452	312	14	85	21·49	6·82
16 Cuddalore	C	886	50	6	25	5·64	3·50
17 Erode	B	697	121	8	28	17·36	5·16
18 Rajapalayam	A	681	96	7	42	14·10	7·20
19 Nagapattinam	B	419	38	3	16	9·07	4·53
20 Virdunagar.	B	632	129	7	56	20·41	9·97
21 Pollachi	C	430	72	9	22	16·74	7·21
22 Mayuram	C	562	42	1	27	7·47	4·98
23 Palayamcottai	C	420	27	1	14	6·43	3·57
24 Karur	A	741	59	12	22	7·96	4·59
25 Pudukottai	C	558	65	4	30	12·08	6·32
26 Gudiyatham	A	1,084	46	4	31	4·24	3·23
27 Aruppukkottai	A	1,123	39	4	20	3·47	2·14
28 Ootacamund	C	231	30	9	10	12·99	8·23
MAHARASHTRA							
Class I							
1 Greater Bombay	A	26,023	7,023	969	2,418	27·70	13·02
2 Nagpur	A	11,834	876	251	275	7·40	4·44
3 Poona	A	5,730	961	344	298	16·77	11·20
4 Sholapur	A	4,579	149	38	54	3·25	2·01
5 Kolhapur	A	2,822	364	42	194	12·90	8·36
6 Amravati	C	1,230	197	70	82	16·02	12·36
7 Nasik	A	1,113	209	62	98	18·78	14·38
8 Malegaon	A	2,642	935	61	652	35·39	26·99
9 Ahmadnagar	C	2,026	258	92	110	12·73	9·97
10 Akola	C	1,123	203	80	82	18·08	14·43
11 Ulhasnagar	B	984	196	35	99	19·92	13·62
12 Thana	A	453	66	22	13	14·57	7·73
13 Dhulia	A	1,290	375	74	210	29·07	22·02

TABLE V.4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment—contd.

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by			Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
			Total	1 person	2-5 persons		
1	2	3	4	5	6	7	8
MAHARASHTRA—*concld.*							
Class II							
14 Aurangabad	C	801	72	34	27	8·99	7·62
15 Nanded	A	680	59	15	36	8·68	7·50
16 Jalgaon	C	850	119	38	38	14·00	11·29
17 Bhusawal	B	417	51	19	22	12·23	9·83
18 Sangli	A	1,509	146	43	60	9·68	6·83
19 Kalyan	B	319	90	19	51	28·21	21·94
20 Jalna	C	1,022	12	6	6	1·17	1·17
21 Poona Cantt.	C	646	145	43	55	22·45	15·17
22 Gondia	A	1,526	76	28	37	4·98	4·26
23 Miraj	A	1,350	69	28	22	5·11	3·70
24 Chanda	A	1,377	63	21	31	4·58	3·78
25 Ichalkaranji	A	1,822	384	18	136	21·08	8·45
26 Barsi	A	501	48	18	16	9·58	6·79
MYSORE							
Class I							
1 Bangalore	A	7,524	1,996	363	859	26·53	16·24
2 Mysore	C	2,490	328	62	149	13·17	8·47
3 Hubli	A	1,081	169	43	76	15·63	11·01
4 Kolar Gold Fields	A	578	77	16	24	13·32	6·92
5 Mangalore	A	2,496	165	10	62	6·61	2·88
6 Belgaum	C	1,903	310	98	116	16·29	11·25
Class II							
7 Gulbarga	A	121	49	6	38	40·50	36·36
8 Bellary	C	167	53	32	11	31·74	25·75
9 Bijapur	C	523	3	1	..	0·57	0·19
10 Davanagere	A	560	83	25	18	14·82	7·68
11 Dharwar	C	663	71	23	28	10·71	7·69
12 Gadag Betgeri	A	1,398	52	3	22	3·72	1·79
13 Shimoga	C	679	85	17	45	12·52	9·13
14 Raichur	C	191	18	5	9	9·42	7·33
15 Hospet	C	98	35	21	7	35·71	28·57
ORISSA							
Class I							
1 Cuttack	C	1,910	179	28	66	9·37	4·92
Class II							
2 Rourkela	A	165	30	5	6	18·18	6·67
3 Berhampur	C	1,208	49	8	32	4·06	3·31
4 Puri	C	385	9	1	6	2·34	1·82
PUNJAB							
Class I							
1 Amritsar	A	2,470	1,087	35	382	44·01	16·88
2 Ludhiana	A	3,367	1,308	115	667	38·85	23·23
3 Jullundur	A	1,365	667	25	255	46·86	20·51
4 Patiala	C	559	106	11	51	18·96	11·09
5 Ambala Cantt.	C	651	314	63	150	48·23	32·72
Class II							
6 Chandigarh	C	119	43	2	16	36·13	15·13
7 Rohtak	B	641	105	24	66	16·38	14·04
8 Ambala	C	488	79	13	42	16·19	11·27
9 Karnal	C	422	72	7	51	17·06	13·74
10 Panipat	A	1,171	121	14	73	10·33	7·43

TABLE V. 4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment—contd.

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by			Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
			Total	1 person	2-5 persons		
1	2	3	4	5	6	7	8
PUNJAB—*concld.*							
11 Hissar	A	402	102	11	78	25·37	22·14
12 Bhiwani	A	621	75	7	58	12·08	10·47
13 Patnankot	C	154	51	4	28	33·12	20·78
14 Bhatinda	B	249	51	3	37	20·48	16·06
15 Yamunanagar	A	154	41	5	18	26·62	14·94
16 Batala	A	775	432	8	186	55·74	25·03
17 Hoshiarpur	C	502	87	9	61	17·33	13·94
RAJASTHAN							
Class I							
1 Jaipur	C	2,925	673	185	370	23·01	18·97
2 Ajmer	B	1,411	300	76	175	21·26	17·79
3 Jodhpur	C	1,220	232	102	90	19·02	15·74
4 Bikaner	C	1,167	188	54	101	16·11	13·28
5 Kota	C	711	108	9	77	15·19	12·10
6 Udaipur	C	983	203	49	114	20·65	16·58
Class II							
7 Alwar	C	454	80	16	53	17·62	15·20
8 Ganganagar	A	412	73	15	34	17·72	11·89
9 Beawar	A	264	35	6	23	13·26	10·98
10 Sikar	A	297	2	..	2	0·67	0·67
UTTAR PRADESH							
Class I							
1 Kanpur	A	4,321	826	93	384	19·12	11·04
2 Lucknow	C	4,461	730	100	361	16·36	10·33
3 Varanasi (M.C.), Rly. Colony and Hindu University ..	A	8,124	653	129	375	8·04	6·20
4 Agra	A	4,582	704	70	382	15·36	9·86
5 Allahabad (M. C.), and Subedarganj Rly. Colony)	C	2,514	447	132	171	17·78	12·05
6 Bareilly (M.B.), Northern Rly. Colony and Izatnagar Rly. Colony ..	A	1,166	358	66	222	30·70	24·70
7 Meerut (M.B.) and Malyana	A	2,248	138	23	83	6·14	4·72
8 Saharanpur	B	408	65	7	37	15·93	10·78
9 Aligarh	C	1,066	153	19	104	14·35	11·54
10 Gorakhpur	B	1,234	69	20	15	5·59	2·84
11 Moradabad	A	1,725	283	50	179	16·41	13·28
12 Jhansi	B	957	54	21	24	5·64	4·70
13 Rampur	A	650	125	12	91	19·23	15·85
14 Dehra Dun	C	157	128	45	47	81·53	58·60
15 Mathura	C	1,223	125	17	79	10·22	7·85
16 Shahjahanpur	C	719	60	8	46	8·34	7·51
17 Mirzapur-*cum*-Vindhyachal	A	1,123	50	4	15	4·45	1·69
Class II							
18 Firozabad	A	1,247	66	9	32	5·29	3·29
19 Farrukhabad-*cum*-Fatehgarh	C	1,089	59	5	47	5·42	4·78
20 Muzaffarnagar	C	238	63	16	32	26·47	20·17
21 Faizabad-*cum*-Ayodhya ..	C	746	87	24	49	11·66	9·79
22 Kanpur Cantt. Armapur Estate & Chakeri Aerodrome	C	274	30	6	15	10·95	7·66
23 Meerut Cantt.	C	227	9	4	5	3·96	3·53
24 Ghaziabad	A	159	49	3	13	30·82	10·06

TABLE V.4

Cities and towns of population size Class I (over 100,000) and Class II (50,000—99,999) classified by industrial establishments running on electricity by selected size group of employment—concld.

Cities and Towns (50,000+)	Functional type	Total number of establishments	Establishments run on electricity by: Total	1 person	2-5 persons	Col. 4 as % of Col. 3	Cols. 5+6 as % of Col. 3
1	2	3	4	5	6	7	8
UTTAR PRADESH—*concld.*							
25 Etawah	C	1,059	70	20	40	6·61	5·67
26 Amroha	A	520	53	14	20	10·19	6·54
27 Sambhal	A	899	66	46	16	7·34	6·90
28 Hathras	B	538	61	17	27	11·34	8·18
29 Jaunpur	C	679	28	5	23	4·12	4·12
30 Hardwar	C	87	32	6	21	36·78	31·03
31 Budaun	C	270	14	12	2	5·19	5·19
32 Pilibhit	C	31	4	..	1	12·90	3·23
33 Bahraich	C	419	62	1	33	14·80	8·11
34 Hapur	C	349	61	7	42	17·48	14·04
35 Sitapur	C	276	43	5	21	15·58	9·42
WEST BENGAL							
Class I							
1 Calcutta	B	32,937	8,892	449	3,622	27·00	12·36
2 Howrah	A	4,323	1,754	62	603	40·57	15·38
3 South Suburban	A	622	244	11	63	39·23	11·90
4 Bhatpara	A	515	97	19	26	18·83	8·74
5 Kharagpur	B	590	46	7	19	7·80	4·41
6 Baly including outer Baly	A	689	320	17	48	46·44	9·43
7 Garden Reach	A	508	36	4	10	7·09	2·76
8 Kamarhati	A	575	210	15	55	36·52	12·17
9 South Dum-Dum	A	415	145	3	20	34·94	5·54
10 Burdwan	C	889	165	21	66	18·56	9·79
11 Baranagar	A	657	221	21	73	33·64	14·31
Class II							
12 Asansol	B	498	101	7	55	20·28	12·45
13 Panihati	A	421	112	20	29	26·60	11·64
14 Serampore	A	637	105	35	32	16·48	10·52
15 Hooghly-Chinsurah	C	253	39	4	18	15·42	8·70
16 Titagar	A	228	62	12	29	27·19	17·98
17 Nabadwip	A	823	45	10	22	5·47	3·89
18 Krishnanagar	C	361	37	11	15	10·25	7·20
19 Kanchrapara	A	331	79	24	40	23·87	19·34
20 Chandannagar	A	384	54	10	21	14·06	8·07
21 Siliguri	B	464	74	2	27	15·95	6·25
22 Burnpur	A	187	15	..	6	8·02	3·21
23 Barrackpore	A	295	50	5	18	16·95	7·80
24 Bankura	C	863	62	4	28	7·18	3·71
25 Bahrampur	C	400	47	6	27	11·75	8·25
26 Midnapur	C	440	60	10	30	13·64	9·09
27 Naihati	A	364	65	27	18	17·86	12·36
28 North Barrackpur	A	215	44	10	25	20·47	16·28
29 Basirhat	C	238	12	5	5	5·04	4·20
30 Halisahar	A	201	55	23	24	27·36	23·38
31 Santipur	A	1,042	24	5	15	2·30	1·92
DELHI							
Class I							
1 Delhi	C	7,933	4,205	252	1,811	53·01	26·01
2 New Delhi	C	178	109	5	35	61·24	22·47
MANIPUR							
Class II							
1 Imphal	A	2,725	39	..	12	1·43	0·44
TRIPURA							
Class II							
1 Agartala	C	514	55	14	23	10·70	7·20

E. Classification of districts by use of electricity in industry

Table V.5 presents for districts as a whole the rural and urban patterns of electricity use in industrial establishments. The table also shows the total number of inhabited villages and towns in each district and the number electrified and also whether a district headquarter generates its own electricity or draws its supply from a grid or does both. The table also estimates the proportion of workers working in establishments employing less than 100 persons and running on electricity.

The following is an abstract of Table V.5.

STATEMENT V.14

Classification of districts by ranges of electricity used in industrial establishments

State	Total number of districts	Range			
		7·95+	2·72—7·95	0·75—2·71	0—0·74
1	2	3	4	5	6
Andhra Pradesh	20	3	7	6	4
Assam	11	1	7	2	1
Bihar	17	2	5	8	2
Gujarat	17	10	5	1	1
Jammu and Kashmir	9	1	1	2	5
Kerala	9	5	3	1	..
Madhya Pradesh	43	2	3	16	22
Madras	13	3	10	..	..
Maharashtra	26	5	9	8	4
Mysore	19	9	7	3	..
Orissa	13	..	..	1	12
Punjab	19	12	5	1	1
Rajasthan	26	11	3	8	4
Uttar Pradesh	54	13	14	18	9
West Bengal	16	4	3	7	2
Andaman and Nicobar Islands	1	1	..	..	..
Delhi	1	1	..	..	..
Himachal Pradesh	6	..	..	..	6
Laccadive, Minicoy and Amindivi Islands	1	..	..	..	1
Manipur	1	..	..	..	1
Tripura	1	..	1	..	..
Dadra and Nagar Haveli	1	..	..	..	1
Pondicherry	4	1	1	..	2
North-East Frontier Agency	1	..	..	..	1
Nagaland	3	..	..	..	3
SIKKIM	1	..	..	1	..

The following districts have nil values : Dangs (Gujarat), Ladakh and Doda (J. & K.) Lahaul & Spiti (Punjab), Uttar Kashi, Tehri Garhwal, Pithoragarh (Uttar Pradesh), L. M. & A. Islands, Dadra & Nagar Haveli N.E.F.A, Nagaland, Yanam and Mahe (Pondicherry).

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishments below 100 using electricity to total workers in Div. 2 & 3 (B-IV. C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both (NE) None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified	
1	2	3	4	5	6	7	8	9	10	11	12	13
		I—Districts of high electricity use in industry (above 7·95%)										
Andhra Pradesh	Kurnool	8·19	1·23	6·96	3·63	0·18	3·45	1,096	175	16	16	2
	East Godavari	8·61	2·82	5·79	3·65	1·18	2·47	1,346	377	14	14	2
	Hyderabad	17·02	0·76	16·26	8·46	0·20	8·26	956	72	15	15	3
Assam	United Khasi and Jaintia Hills	12·56	1·54	11·02	13·01	2·73	10·28	1,992	3	5	2	1
Bihar	Patna	8·90	3·21	5·69	7·22	1·81	5·41	2,335	495	10	10	3
	Dhanbad	10·75	3·38	7·37	5·98	1·88	4·10	1,462	131	19	14	2

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments—contd.

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishment below 100 using electricity to total workers in Div. 2 & 3 (B-IV-C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both (NE) None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified	
1	2	3	4	5	6	7	8	9	10	11	12	13
		I—Districts of high electricity use in industry (above 7·95%)—contd.										
Gujarat	Junagadh	8·02	0·64	7·38	5·94	0·60	5·34	1,069	27	17	16	2
	Surendranagar	8·27	0·10	8·17	4·50	0·03	4·47	661	4	11	11	2
	Bhavnagar	8·82	0·36	8·46	7·25	0·14	7·11	881	22	13	11	1
	Broach	10·41	0·85	9·56	3·77	0·51	3·26	1,217	7	4	4	2
	Jamnagar	11·17	0·39	10·78	7·39	0·10	7·29	701	20	15	13	3
	Rajkot	16·59	0·79	15 80	12·80	0·30	12·50	855	57	14	12	3
	Baroda	18·89	2·10	16·79	9·98	0·95	9·03	1,691	51	9	8	2
	Kaira	19·58	6·06	13·52	13·87	4·36	9·51	965	168	17	15	2
	Ahmedabad	22·71	0·68	22·03	7·30	0·20	7·10	737	27	14	12	1
	Surat	39·58	3·12	36·46	31·06	3·64	27·42	2,112	98	17	15	2
Jammu and Kashmir	Jammu	8·59	1·60	6·99	25·99	6·55	19·44	1,037	41	7	6	3
Kerala	Alleppey	8·91	5·20	3·71	2·30	0·84	1·46	99	75	8	8	2
	Quilon	9·22	6·39	2·83	3·21	1·51	1·70	98	74	3	3	2
	Ernakulam	10·56	5·73	4·83	4·73	2·04	2·69	107	85	12	12	2
	Trichur	13·75	9·15	4·60	8·01	5·54	2·47	238	161	7	7	2
	Kottayam	13·98	6·39	7·59	7·94	4·21	3·73	101	59	7	7	2
Madhya Pradesh	East Nimar	8·65	0·22	8·43	9·93	0·11	9·82	1,082	20	3	3	2
	Indore	11·35	0·40	10·95	9·01	0·11	8·90	640	16	4	2	3
Madras	Madurai	8·42	1·33	7·09	7·25	0·63	6·62	875	551	32	31	2
	Madras	15·18	..	15·18	13·29	0	13·29	0	0	1	1	2
	Nilgiri	18·76	10·78	7·98	31·67	21·86	9·81	37	32	13	13	2
Maharashtra	Poona	9·37	0·96	8·41	10·47	1·39	9·08	1,498	25	22	15	2
	Nasik	9·74	0·13	9·61	7·74	0·26	7·48	1,652	0	15	10	1
	Akola	11·34	5·23	6·11	8·29	2·57	5·72	1,508	72	9	9	2
	Greater Bombay	27·70	..	27·70	12·44	0	12·44	0	0	1	1	2
	Thana	34·90	2·27	32·63	18·45	2·08	16·37	1,599	16	20	14	2
Mysore	Coorg	9·23	3·41	5·82	3·41	0·49	2·92	277	3	10	8	2
	Kolar	12·08	4·01	8·07	8·55	1·92	6·63	2,743	828	13	13	2
	Hassan	15·28	4·37	10·91	6·21	1·36	4·85	2,291	164	12	12	2
	Shimoga	16·68	5·94	10·74	6·09	1·40	4·69	1,728	365	14	14	2
	Gulbarga	17·03	11·23	5·80	1·20	0·59	0·61	1,298	0	10	6	1
	Mandya	19·51	13·31	6·20	6·26	4·68	1·58	1,333	242	11	11	2
	Bellary	21·61	8·27	13·34	2·12	0·67	1·45	585	103	7	7	2
	Chikmagalur	22·34	10·44	11·90	8·63	4·82	3·81	961	227	9	9	2
	Bangalore	27·62	1·84	25·78	13·54	0·60	12·94	2,296	861	21	21	2
Punjab	Patiala	8·47	1·49	6·98	6·91	0·79	6·12	1,518	87	14	14	2
	Karnal	8·53	2·71	5·82	6·02	1·72	4·30	1,350	107	11	11	2
	Ferozepur	13·22	1·64	11·58	6·46	0·92	5·54	1,426	136	14	13	2
	Hissar	14·50	1·43	13·07	4·38	0·31	4·07	1,033	66	11	9	2
	Rohtak	16·44	8·22	8·22	4·57	2·63	1·94	761	125	7	7	2
	Ambala	20·10	2·42	17·68	10·89	0·61	10·28	2,467	118	15	12	2
	Kapurthala	21·25	2·94	18·31	18·81	1·98	16·83	525	43	4	4	2
	Gurgaon	21·70	5·20	16·50	9·97	2·76	7 21	1,452	114	14	14	2
	Jullundur	24·01	6·33	17·68	17·68	3·85	13·83	1,184	226	11	11	2
	Ludhiana	30·68	5·16	25·52	21·57	4·63	16·94	859	182	5	5	2
	Amritsar	34·59	5·24	29·35	22·43	1·90	20·53	1,173	785	9	9	2
	Gurdaspur	36·88	5·25	31·63	16·50	0·90	15·60	1,500	382	14	13	2
Rajasthan	Kota	8·76	1·74	7·02	2·43	0·39	2·04	1,860	1	5	3	2
	Jaipur	8·77	0·34	8·43	4·15	0·27	3·88	2,694	12	10	3	1
	Ganganagar	9·36	1·89	7·47	3·89	1·29	2·60	1,538	10	10	7	2
	Ajmer	9·59	0·27	9·32	5·02	0·03	4·99	950	2	8	7	1
	Jodhpur	10·74	0·09	10·65	5·75	0·04	5·71	716	3	4	3	1
	Udaipur	11·47	1·62	9·85	3·38	0·47	2·91	3,159	2	6	3	1
	Bundi	12·41	0·25	12·16	2·04	0·01	2·03	718	0	4	3	1
	Bikaner	12·56	0·41	12·15	7·98	0·11	7·87	525	17	6	6	1
	Dungarpur	13·04	0	13·04	1·92	0	1·92	816	0	2	2	1
	Sirohi	13·08	0·26	12·82	3·60	0·01	3·59	417	0	5	4	1
	Churu	14·51	0·93	13·58	3·05	0·14	2·91	843	7	11	11	2
Uttar Pradesh	Bijnor	7·96	4·51	3·45	1·21	0·80	0·41	2,108	4	10	6	2
	Bulandshahr	8·52	4·34	4·18	4·36	2·25	2·11	1,539	0	13	10	2
	Naini Tal	9·05	5·22	3·83	5·65	3·76	1·89	1,729	22	8	6	3
	Agra	9·06	0·20	8·86	6·23	0·11	6·12	1,188	0	12	8	1
	Saharanpur	9·22	3·03	6·19	2·59	0·62	1·97	1,668	1	9	9	2
	Shahjahanpur	9·29	4·13	5·16	3·59	1·66	1·93	2,048	5	5	5	2
	Aligarh	10·62	3·35	7·27	2·69	0·57	2·12	1,714	0	5	5	2
	Rampur	11·02	2·15	8·87	3·03	0·50	2·53	1,101	4	2	1	3
	Lucknow	12·62	0·21	12·41	8·99	0·34	8·65	907	0	4	3	3
	Moradabad	13·09	4·62	8·47	5·57	1·58	3·99	2,449	3	11	10	2
	Kanpur	13·64	0·59	13·05	5·35	0·08	5·27	1,893	0	3	3	1
	Bareilly	17·66	1·39	16·27	5·27	0·64	4·63	1,924	7	6	6	3
	Dehra Dun	22·47	4·22	18·25	7·89	2·61	5·28	761	1	8	7	3

*Diesel generating sets are available and run in emergency to meet part load.

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments—contd.

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishments below 100 using electricity to total workers in Div. 2 & 3 (B-IV.C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified (NE)	
1	2	3	4	5	6	7	8	9	10	11	12	13
		I—Districts of high electricity use in industry (above 7·95%)—concld.										
West Bengal	Darjeeling	8·80	2·18	6·62	31·63	18·00	13·63	536	17	4	4	3
	24-Parganas	9·66	1·02	8·64	4·65	0·51	4·14	3,812	88	49	48	2
	Howrah	20·36	1·31	19·05	10·74	0·59	10·15	787	22	23	15	2
	Calcutta	27·00	..	27·00	28·17	0	28·17	0	0	1	1	3
Andaman and Nicobar Islands	Andaman and Nicobar Islands	16·67	1·52	15·15	8·44	0	8·44	399	5	1	1	1
Delhi	Delhi	52·21	0·24	51·97	26·27	0·04	26·23	276	55	3	3	3
Pondicherry	Karaikal	18·50	7·87	10·63	16·42	6·83	9·59	118	51	1	1	2
		II—Districts of medium electricity use in industry (2·72—7·95%)										
Andhra Pradesh	Chittoor	3·54	1·17	2·37	2·60	0·51	2·09	1,429	507	13	13	2
	Guntur	3·90	0·88	3·02	2·23	0·25	1·98	932	248	20	19	2
	Srikakulam	4·23	2·22	2·01	2·36	1·59	0·77	3,246	148	13	13	2
	Anantapur	4·63	0·73	3·90	4·19	0·79	3·40	922	273	14	14	2
	Visakhapatnam	6·63	1·91	4·72	2·10	0·46	1·64	3,524	166	10	10	2
	Krishna	6·87	2·10	4·77	6·26	1·72	4·54	946	320	13	13	2
	West Godavari	7·35	2·08	5·27	3·76	0·88	2·88	826	282	10	10	2
Assam	Darrang	3·45	1·44	2·01	2·64	1·79	0·85	2,441	1	5	3	1
	Sibsagar	3·60	1·13	2·47	2·37	1·00	1·37	2,200	2	6	6	1
	Cachar	4·20	0·24	3·96	1·54	0·08	1·46	2,389	0	6	4	1
	Garo Hills	4·81	1·92	2·89	4·09	3·70	0·39	2,415	0	1	1	1
	Lakhimpur	5·43	2·06	3·37	2·89	1·04	1·85	3,271	2	9	6	1
	Kamrup	5·76	0·88	4·88	1·19	0·27	0·92	2,971	5	13	6	2
	Nowgong	5·79	0·55	5·24	1·63	0·37	1·26	1,716	2	4	3	1
Bihar	Ranchi	2·80	0·44	2·36	3·96	0·62	3·34	3,858	46	9	9	2
	Bhagalpur	3·05	1·22	1·83	2·78	0·73	2·05	2,489	8	5	3	1
	Shahabad	3·34	2·03	1·31	2·62	1·58	1·04	4,757	278	9	8	2
	Gaya	4·17	1·90	2·27	3·36	1·48	1·88	6,236	353	10	10	2
	Singhbhum	5·59	1·55	4·04	2·65	0·77	1·88	4,401	46	12	10	2
Gujarat	Amreli	2·72	0·29	2·43	1·66	0·11	1·55	595	7	13	8	2
	Banaskantha	3·11	0·36	2·75	1·08	0·55	0·53	1,359	1	4	3	1
	Kutch	4·78	0·37	4·41	2·89	0·15	2·74	905	58	6	6	3
	Mehsana	6·49	1·05	5·43	3·02	0·36	2·66	1,109	37	14	9	2
	Panchmahals	7·16	0·08	7·08	7·42	0·09	7·33	1,915	0	8	6	1
Jammu and Kashmir	Srinagar	6·56	0·81	5·75	10·58	1·67	8·91	689	55	3	3	2
Kerala	Kozhikode	3·74	0·50	3·24	4·17	0·51	3·66	310	87	17	13	2
	Trivandrum	5·15	1·17	3·98	2·59	0·39	2·20	87	49	13	13	2
	Palghat	5·46	2·99	2·47	4·12	2·60	1·52	298	141	7	6	2
Madhya Pradesh	Ujjain	3·31	0·09	3·22	4·80	0·04	4·76	1,111	8	6	6	2
	Sehore	3·98	0·06	3·92	4·97	0·07	4·90	1,557	10	7	6	2
	Gwalior	7·80	0·10	7·70	4·90	0·03	4·87	760	5	4	3	1
Madras	Tirunelveli	3·99	1·17	2·82	2·47	0·56	1·91	909	357	44	43	2
	Salem	4·27	1·17	3·10	4·46	1·38	3·08	1,503	427	25	25	2
	South Arcot	5·43	1·75	3·68	4·00	1·34	2·66	2,005	388	20	19	2
	North Arcot	5·72	2·13	3·59	3·64	1·34	2·30	1,681	845	30	30	2
	Kanyakumari	6·19	3·39	2·80	1·80	0·81	0·99	46	314	4	4	2
	Tiruchirapalli	6·45	1·92	4·53	5·27	1·07	4·20	1,405	208	33	33	2
	Coimbatore	7·12	2·04	5·08	6·56	1·77	4·79	897	558	34	33	2
	Ramanathapuram	7·14	1·23	5·91	5·18	0·61	4·57	1,427	341	35	35	2
	Chingleput	7·25	3·40	3·85	3·48	1·54	1·94	1,440	954	34	33	2
	Thanjavur	7·78	3·20	4·58	7·91	3·32	4·59	1,899	362	34	34	2
Maharashtra	Jalgaon	3·20	0·45	2·75	3·47	0·25	3·22	1,435	10	14	12	1
	Sangli	3·40	1·39	2·01	5·71	2·37	3·34	526	34	6	6	1
	Yeotmal	3·76	0·30	3·46	3·89	0·11	3·78	1,629	36	8	7	2
	Wardha	4·23	0·31	3·92	3·07	0·11	2·96	972	73	6	6	2
	Kolhapur	4·42	0·20	4·22	9·28	0·20	9·08	1,086	89	11	9	3
	Nagpur	4·41	0·47	3·94	5·77	0·26	5·51	1,653	232	12	12	2
	Kolaba	4·81	2·96	1·85	3·43	2·00	1·43	1,778	2	12	6	1
	Dhulia	5·25	0·01	5·24	5·87	0·10	5·77	1,360	1	7	4	1
	Amravati	6·10	1·14	4·96	6·58	0·37	6·21	1,609	112	13	13	2

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments—contd.

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishments below 100 using electricity to total workers in Div. 2 & 3 (B-IV.C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified (NE)	
1	2	3	4	5	6	7	8	9	10	11	12	13
II—Districts of medium electricity use in industry (2·72—7·95%)—concld.												
Mysore	Tumkur	3·79	2·02	1·77	5·48	3·22	2·26	2,444	514	11	11	2
	Belgaum	3·83	0·42	3·41	3·38	0·35	3·03	1,180	2	15	9	1
	Dharwar	4·72	0·21	4·51	3·30	0·14	3·16	1,358	42	17	16	2
	Bidar	5·17	3·76	1·41	0·87	0·67	0·20	590	0	5	5	1
	Mysore	5·28	1·09	4·19	7·01	0·97	6·04	1,505	339	18	18	2
	Raichur	6·75	4·85	1·90	1·87	1·35	0·52	1,364	13	10	8	2
	Chitradurga	7·45	2·58	4·87	4·40	0·64	3·76	1,239	393	12	12	2
Punjab	Simla	4·24	0·65	3·59	11·13	1·02	10·11	1,023	31	5	5	2*
	Mahendragarh	4·93	0·48	4·45	0·94	0·07	0·87	546	13	5	5	2
	Bhatinda	5·81	0·20	5·61	2·23	0·05	2·18	665	21	14	9	2
	Hoshiarpur	6·15	2·04	4·11	3·29	0·80	2·49	2,070	108	12	12	2
	Sangrur	6·82	1·01	5·81	3·48	0·29	3·19	1,006	89	17	17	2
Rajasthan	Alwar	4·03	0	4·03	2·02	0	2·02	1,853	3	3	2	1
	Bharatpur	5·40	0·50	4·90	1·94	0·35	1·59	1,838	0	9	4	1
	Jhunjhunu	5·72	0·16	5·56	0·67	0·03	0·64	693	1	11	6	2
Uttar Pradesh	Garhwal	3·30	0·13	3·17	1·24	0·05	1·19	3,208	0	6	3	1
	Farrukhabad	3·55	0·73	2·82	1·72	0·25	1·47	1,636	6	5	5	3
	Hardoi	3·88	0·85	3·03	1·58	0·28	1·30	1,886	5	6	5	3
	Etah	4·11	0·79	3·32	2·43	0·46	1·97	1,531	1	7	4	2
	Sitapur	4·26	0·82	3·44	2·37	0·78	1·59	2,330	5	6	6	2
	Mathura	4·50	0·35	4·15	4·10	0·23	3·87	861	0	6	5	2
	Bahraich	4·51	0·80	3·71	3·33	0·28	3·05	1,873	3	3	2	2
	Meerut	5·09	1·59	3·50	3·69	0·92	2·77	1,480	8	15	15	2
	Kheri	5·25	1·97	3·28	2·70	1·18	1·52	1,635	2	4	3	2
	Varanasi	5·64	0·53	5·11	3·07	0·25	2·82	3,624	5	7	7	1
	Muzaffarnagar	5·70	2·42	3·28	3·88	2·14	1·74	928	5	7	7	2
	Pilibhit	6·00	4·38	1·62	2·16	1·54	0·62	1,093	0	3	2	2
	Allahabad	7·32	0·25	7·07	4·12	0·06	4·06	3,526	1	4	3	1
	Budaun	7·50	4·71	2·79	2·32	1·43	0·89	1,818	1	5	3	2
West Bengal	Nadia	3·83	0·89	2·94	2·45	0·31	2·14	1,282	16	12	10	2
	Hooghly	5·48	0·58	4·90	2·22	0·13	2·09	1,911	35	16	16	2
	Burdwan	7·10	1·73	5·37	3·81	1·26	2·55	2,665	53	19	19	2
Tripura	Tripura	2·94	0·15	2·79	1·20	0·05	1·15	4,932	9	6	5	1
Pondicherry	Pondicherry	7·68	2·87	4·81	4·86	1·15	3·71	267	254	2	2	2
III—Districts of low electricity use in industry (0·75—2·71%)												
Andhra Pradesh	Khammam	1·16	0·12	1·04	0·86	0·04	0·82	1,092	24	5	5	2
	Cuddapah	1·22	0·34	0·88	1·56	0·30	1·26	897	197	9	8	2
	Warangal	1·29	0·11	1·18	0·83	0·05	0·78	978	54	8	7	2
	Nizamabad	1·38	0·31	1·07	0·89	0·09	0·80	865	51	6	5	2
	Adilabad	1·82	0·25	1·57	0·81	0·12	0·69	1,543	43	10	10	2
	Nellore	2·50	0·85	1·65	1·40	0·37	1·03	1,626	183	9	9	2
Assam	United Mikir and North Cachar Hills	0·79	0·79	0	0·04	0·04	0	1,869	1	1	0	1
	Goalpara	1·52	0·34	1·18	0·20	0·03	0·17	3,708	0	9	4	1@
Bihar	Purnea	0·93	0·09	0·84	1·16	0·08	1·08	3,687	8	8	4	1†
	Saharsa	1·33	0·76	0·57	2·39	1·99	0·40	1,195	14	6	3	1
	Champaran	1·51	0·51	1·00	1·33	0·33	1·00	2,642	149	9	7	1‡
	Saran	1·61	0·40	1·21	0·92	0·20	0·72	4,425	111	6	5	1
	Muzaffarpur	2·06	0·63	1·43	1·67	0·68	0·99	4,147	171	6	6	1
	Palamau	2·12	1·60	0·52	3·43	2·33	1·10	3,194	27	5	4	2
	Hazaribagh	2·37	1·11	1·26	3·30	1·79	1·51	6,162	133	10	7	2
	Monghyr	2·65	0·64	2·01	1·69	0·46	1·23	3,464	156	13	13	3
Gujarat	Sabarkantha	2·54	0·40	2·14	1·13	0·66	0·47	1,500	1	5	2	2
Jammu and Kashmir	Anantnag	1·33	0·45	0·88	3·61	2·14	1·47	1,191	24	6	5	2
	Baramulla	1·90	0·40	1·50	5·73	1·31	4·42	1,042	15	9	6	2
Kerala	Cannanore	2·02	0·45	1·57	1·98	0·44	1·54	235	54	18	16	2
Madhya Pradesh	Guna	0·84	0·07	0·77	1·48	0·25	1·23	1,922	0	6	4	1
	Seoni	0·86	0	0·86	2·16	0	2·16	1,589	1	1	1	2
	Satna	0·89	0·06	0·83	1·29	0·06	1·23	1,753	20	4	4	1
	Balaghat	0·93	0·27	0·66	0·92	0·22	0·70	1,285	10	4	4	2
	Morena	0·95	0·42	0·53	2·68	1·62	1·06	1,290	7	6	2	2
	Mandsaur	0·95	0·06	0·89	1·70	0·13	1·57	1,576	4	12	7	2
	Dewas	1·02	0·15	0·87	2·00	0·72	1·28	1,039	1	7	1	2
	Bilaspur	1·05	0·22	0·83	2·16	0·36	1·80	3,529	15	10	9	2

*MES authorities have their own generating sets which they run in emergency.

@District Headquarter is not considered as town but it is electrified.

† The power station is located at Katihar which is a sub-divisional town of the district.

‡ The power station is located at Bettiah which is a sub-divisional town of the district.

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments—contd.

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishments below 100 using electricity to total workers in Div. 2 & 3 (B-IV.C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both (NE)None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified	
1	2	3	4	5	6	7	8	9	10	11	12	13
III—Districts of low electricity use in industry (0·75—2·71%)—concld.												
Madhya Pradesh —(*concld.*)	Betul	1·12	0·08	1·04	1·22	0·04	1·18	1,276	5	4	4	2
	West Nimar	1·15	0·02	1·13	0·91	0·01	0·90	1,715	0	13	10	1
	Hoshangabad	1·55	0·12	1·43	2·45	0·08	2·37	1,399	17	9	6	2
	Chhindwara	1·71	0·60	1·11	2·62	0·72	1·90	1,896	43	8	7	2
	Ratlam	2·02	0·05	1·97	3·02	0·27	2·75	1,038	1	5	3	2
	Jabalpur	2·36	0·05	2·31	5·56	0·07	5·49	2,267	63	11	7	1
	Durg	2·40	0·28	2·12	4·50	0·24	4·26	4,041	37	8	7	2
	Raipur	2·58	0·39	2·19	6·20	0·48	5·72	3,811	46	8	6	3
Maharashtra	Ratnagiri	0·92	0·13	0·79	1·73	0·66	1·07	1,516	5	13	6	1
	Aurangabad	0·99	0·05	0·94	1·10	0·01	1·09	1,879	4	10	9	1
	Nanded	1·03	0	1·03	0·67	0	0·67	1,325	0	11	5	2
	Chanda	1·06	0·28	0·78	1·97	0·58	1·39	2,755	18	5	5	2
	Satara	1·57	0·72	0·85	3·60	1·93	1·67	1,160	29	10	8	1
	Sholapur	1·93	0·12	1·81	1·82	0·13	1·69	946	1	10	5	1
	Ahmadnagar	2·31	0·18	2·13	3·74	0·69	3·05	1,318	2	5	5	1
	Buldhana	2·42	0·20	2·22	5·49	0·17	5·32	1,225	20	9	9	1
Mysore	Bijapur	0·82	0·20	0·62	0·50	0·22	0·28	1,245	3	14	10	1
	North Kanara	2·02	0·58	1·44	0·88	0·26	0·62	1,272	6	9	6	1
	South Kanara	2·27	0·46	1·81	3·44	0·65	2·79	668	150	13	8	2
Orissa	Cuttack	0·76	0·10	0·66	2·16	0·19	1·97	5,883	30	7	6	2
Punjab	Kangra	1·04	0·75	0·29	2·48	1·74	0·74	691	206	7	7	2
Rajasthan	Nagaur	0·87	0·27	0·60	0·37	0·22	0·15	1,199	1	8	5	1
	Jhalawar	1·02	0	1·02	0·47	0	0·47	1,423	2	4	3	2
	Tonk	1·05	0·10	0·95	0·19	0·01	0·18	1,002	1	5	3	1
	Sawai Madhopur	1·28	0·06	1·22	0·22	0·01	0·21	1,524	4	5	4	1
	Pali	1·56	0·26	1·30	0·57	0·10	0·47	826	1	5	2	1
	Jalor	2·29	1·08	1·21	0·74	0·20	0·54	591	0	2	2	1
	Banswara	2·38	0	2·38	1·25	0	1·25	1,426	2	2	1	1
	Bhilwara	2·39	0·67	1·72	1·12	0·27	0·85	1,500	0	3	2	1
Uttar Pradesh	Fatehpur	0·88	0·35	0·53	0·40	0·15	0·25	1,382	1	2	2	2
	Hamirpur	0·90	0·35	0·55	0·25	0·08	0·17	917	0	4	3	2
	Jhansi	0·92	0·11	0·81	0·77	0·02	0·75	1,461	1	10	4	1
	Bara Banki	1·00	0·38	0·62	0·71	0·32	0·39	2,054	2	5	5	2
	Mirzapur	1·00	0·17	0·83	2·27	0·16	2·11	2,930	1	6	3	1
	Banda	1·03	0·03	1·00	0·73	0·19	0·54	1,194	0	4	2	1
	Chamoli	1·04	1·04	0	0·30	0·30	0	1,415	0	0	0	NE
	Jaunpur	1·11	0·25	0·86	0·42	0·08	0·34	3,214	0	5	4	2
	Faizabad	1·56	0·74	0·82	1·07	0·37	0·70	2,758	4	5	4	2
	Unnao	1·68	0·80	0·88	1·07	0·31	0·76	1,696	2	1	1	2
	Gonda	1·68	0·11	1·57	1·77	0·18	1·59	2,835	2	5	5	2
	Ghazipur	1·69	1·08	0·61	0·45	0·29	0·16	2,502	4	2	2	2
	Mainpuri	1·72	0·77	0·95	1·03	0·44	0·59	1,385	2	6	3	2
	Ballia	1·80	1·53	0·27	0·39	0·34	0·05	1,900	6	2	2	2
	Deoria	1·87	0·86	1·01	0·43	0·10	0·33	3,552	8	3	3	2
	Rae Bareli	2·04	0·40	1·64	0·49	0·11	0·38	1,748	3	2	2	2
	Gorakhpur	2·58	0·62	1·96	1·14	0·06	1·08	4,086	11	2	2	3
	Etawah	2·67	0·25	2·42	2·23	0·32	1·91	1,479	0	4	3	2
West Bengal	Midnapore	1·09	0·16	0·93	0·95	0·13	0·82	10,618	15	14	7	2
	Bankura	1·45	0·27	1·18	2·03	0·57	1·46	3,553	6	5	4	2
	Cooch Behar	1·55	0·16	1·39	2·43	0·82	1·61	1,138	13	6	6	1
	Murshidabad	1·61	0·36	1·25	0·57	0·16	0·41	1,932	12	9	9	2
	Jalpaiguri	1·73	0·80	0·93	2·60	1·56	1·04	774	4	7	4	1
	Purulia	1·83	0·38	1·45	1·50	0·20	1·30	2,490	10	5	3	2
	Birbhum	2·34	1·49	0·85	3·24	2·76	0·48	2,234	25	6	6	2
Sikkim	Sikkim	0·82	0	0·82	4·08	0	4·08	462	0	1	1	1
IV—Districts of very low electricity use in industry (0—0·74%)												
Andhra Pradesh	Nalgonda	0·28	0·10	0·18	0·40	0·10	0·30	1,124	50	8	8	2
	Mahbubnagar	0·54	0·22	0·32	0·07	0·02	0·05	1,456	37	14	13	2
	Medak	0·66	0·31	0·35	0·64	0·23	0·41	1,227	49	8	8	2
	Karimnagar	0·70	0·51	0·19	0·41	0·24	0·17	1,053	57	8	7	2
Assam	Mizo Hills	0·28	0	0·28	0·26	0	0·26	730	0	1	0	NE
Bihar	Darbhanga	0·62	0·27	0·35	0·65	0·30	0·35	3,143	157	6	6	1
	Santal Parganas	0·73	0·14	0·59	1·35	0·31	1·04	10,068	88	10	9	2
Gujarat	Dangs	0	0	0	0	0	0	312	0	0	0	NE
Jammu and Kashmir	Ladakh	0	0	0	0	0	0	237	0	1	0	NE
	Doda	0	0	0	0	0	0	654	0	6	2	NE
	Udhampur	0·07	0	0·07	1·64	0	1·64	620	4	4	3	3
	Poonch	0·25	0	0·25	0·52	0	0·52	547	0	3	2	1
	Kathua	0·62	0·34	0·28	2·54	1·32	1·22	542	17	4	4	2
Madhya Pradesh	Sidhi	0·05	0	0·05	0·10	0	0·10	1,733	1	1	0	1
	Rajgarh	0·07	0	0·07	0·28	0	0·28	1,673	0	5	4	1

TABLE V.5

Classification of districts by ranges of electricity used in industrial establishments—concld.

State	District	Establishments running on electricity as percentage of total establishments			Proportion of workers in establishments below 100 using electricity to total workers in Div. 2 & 3 (B-IV.C)			Number of inhabited villages		Number of towns		Electric supply derived from (1) Local gen. (2) Grid (3) Both None
		Total	Rural	Urban	Total	Rural	Urban	Total	Electrified	Total	Electrified	
1	2	3	4	5	6	7	8	9	10	11	12	13
		IV—Districts of very low electricity use in industry (0—0·74%)—concld.										
Madhya Pradesh —*concld.*	Tikamgarh	0·21	0	0·21	0·46	0	0·46	872	0	1	1	1
	Chhatarpur	0·22	0·04	0·18	0·31	0·08	0·23	1,076	5	5	5	1
	Panna	0·22	0·03	0·19	0·40	0·08	0·32	934	1	1	1	1
	Mandla	0·22	0	0·22	0·95	0	0·95	2,088	0	2	1	1
	Bastar	0·23	0	0·23	0·24	0	0·24	3,240	0	2	2	1
	Raigarh	0·24	0	0·24	0·11	0	0·11	2,185	1	4	3	1
	Shahdol	0·27	0·03	0·24	0·49	0·09	0·40	1,974	1	5	2	1
	Shajapur	0·27	0·01	0·26	0·34	0·02	0·32	1,064	1	5	3	2
	Jhabua	0·29	0	0·29	0·23	0	0·23	1,331	0	6	2	1
	Raisen	0·29	0·16	0·13	0·60	0·34	0·26	1,401	9	3	3	2
	Vidisha	0·31	0	0·31	0·39	0	0·39	1,498	0	4	4	2
	Datia	0·34	0	0·34	0·48	0	0·48	416	0	1	1	1
	Surguja	0·37	0·11	0·26	0·98	0·49	0·49	2,397	0	6	2	1
	Damoh	0·37	0	0·37	0·43	0	0·43	1,144	0	2	2	2
	Shivpuri	0·54	0	0·54	0·99	0	0·99	1,308	0	3	1	1
	Sagar	0·60	0·01	0·59	1·34	0·05	1·29	1,846	10	8	5	1
	Narsimhapur	0·62	0·09	0·53	1·08	0·08	1·00	993	8	4	4	2†
	Rewa	0·67	0	0·67	2·22	0	2·22	2,296	5	1	1	2
	Bhind	0·69	0	0·69	1·27	0	1·27	898	0	4	2	1
	Dhar	0·69	0	0·69	0·76	0	0·76	1,471	4	6	1	2
Maharashtra	Bhir	0·15	0	0·15	0·05	0	0·05	1,031	1	7	4	1
	Osmanabad	0·25	0	0·25	0·22	0	0·22	1,388	0	13	5	1
	Parbhani	0·35	0·08	0·27	0·55	0·14	0·41	1,517	1	12	5	1
	Bhandara	0·40	0·06	0·34	0·66	0·11	0·55	1,486	38	5	5	2
Orissa	Baudh-Khondmals	0·03	0	0·03	0·12	0	0·12	4,471	1	1	1	1
	Bolangir	0·09	0·01	0·08	0·46	0·09	0·37	2,524	0	5	4	1
	Kalahandi	0·10	0·05	0·05	0·27	0·22	0·05	2,902	3	3	2	1
	Mayurbhanj	0·10	0·01	0·09	0·43	0·04	0·39	3,671	0	2	2	2
	Dhenkanal	0·12	0·01	0·11	0·38	0·03	0·35	2,512	2	4	3	2
	Puri	0·16	0·08	0·08	0·58	0·17	0·41	4,374	40	5	5	2
	Balasore	0·20	0·05	0·15	1·08	0·40	0·68	3,823	2	5	5	2
	Koraput	0·22	0	0·22	0·69	0	0·69	5,579	1	7	7	2
	Keonjhar	0·24	0·08	0·16	1·90	0·81	1·09	1,973	1	2	2	1
	Sambalpur	0·30	0·05	0·25	1·15	0·27	0·88	3,393	2	7	7	2
	Ganjam	0·39	0·04	0·35	0·78	0·18	0·60	3,773	12	10	10	2
	Sundargarh	0·66	0	0·66	1·25	0	1·25	1,588	2	4	4	2
Punjab	Lahaul and Spiti	0	0	0	0	0	0	20	0	0	0	1
Rajasthan	Sikar	0·26	0·09	0·17	0·04	0·01	0·03	798	0	7	4	2
	Chitorgarh	0·31	0·12	0·19	0·08	0·01	0·07	2,025	1	6	3	1
	Barmer	0·32	0·19	0·13	0·18	0·11	0·07	822	0	2	2	1
	Jaisalmer	0·46	0	0·46	0·12	0	0·12	485	0	2	1	1
Uttar Pradesh	Uttar Kashi	0	0	0	0	0	0	662	0	1	0	NE
	Tehri Garhwal	0	0	0	0	0	0	1,940	0	3	2	2
	Jalaun	0·14	0·09	0·05	0·02	0·01	0·01	942	0	4	3	2
	Basti	0·16	0·12	0·04	0·09	0·06	0·03	6,966	7	1	1	2
	Sultanpur	0·19	0·16	0·03	0·20	0·18	0·02	2,492	3	1	1	2
	Pithoragarh	0·20	0·20	0	0·05	0·05	0	1,668	0	0	0	NE
	Almora	0·26	0·02	0·24	0·86	0·01	0·85	3,877	2	3	2	2
	Azamgarh	0·26	0·16	0·10	0·26	0·21	0·05	4,916	5	5	4	2
	Pratapgarh	0·52	0·04	0·48	0·46	N	0·46	2,195	0	1	1	2
West Bengal	West Dinajpur	0·47	0·08	0·39	1·27	0·12	1·15	3,130	4	6	5	1
	Malda	0·60	0·04	0·56	0·49	0·01	0·48	1,603	3	2	2	1
Himachal Pradesh	Kinnaur	0	0	0	0	0	0	77	0	0	0	NE
	Chamba	0·16	0·07	0·09	2·20	1·64	0·56	1,123	94	1	1	3
	Bilaspur	0·27	0·27	0	1·18	0·32	0·86	926	28	2	2	2
	Mahasu	0·30	0·11	0·19	5·54	3·27	2·27	2,893	126	5	5	*
	Mandi	0·33	0·21	0·12	4·29	1·25	3·04	4,454	86	3	3	2
	Sirmur	0·33	0·07	0·26	1·69	0·76	0·93	965	23	2	2	2
Laccadive, Minicoy and Amindivi Islands	Laccadive, Minicoy and Amindivi Islands	0	0	0	0	0	0	10	0	0	0	NE
Manipur	Manipur	0·29	0	0·29	0·83	0	0·83	1,866	48	1	1	1
Dadra and Nagar Haveli	Dadra and Nagar Haveli	0	0	0	0	0	0	72	2	0	0	1
North-East Frontier Agency	North-East Frontier Agency	0	0	0	0	0	0	2,451	4	0	0	1
Nagaland	Kohima	0	0	0	0	0	0	263	0	2	2	1
	Mokokchung	0	0	0	0	0	0	285	2	1	1	1
	Tuensang	0	0	0	0	0	0	266	2	0	0	1
Pondicherry	Yanam	0	0	0	0	0	0	0	0	1	1	2
	Mahe	0	0	0	0	0	0	3	3	1	1	2

*In Mahasu the district Headquarter, *viz.* Kasumpti is not a town. It is, however, connected to Nogli Hydel Power House which also connects other Census towns in the district.

† Fed by Kareli Diesel Station.

NOTE: (i) Number of electrified villages shown in column 10 in respect of Punjab represents the villages born in the jurisdiction list and not census villages.

(ii) Number of electrified towns shown in column 11 in respect of Mysore State represents Town Groups and Towns.

CHAPTER VI

THE ORGANISED SECTOR OF REGISTERED FACTORIES

A. Registered Factories in 1958

AN ATTEMPT WILL BE made in the General Report on the Census of 1961 on the progress of registered factories and factory employment between 1951 and 1961 and the concentration of registered factories and factory employment in cities and towns of the six population ranges. This discussion will be confined to the statistics of 1958 which was the test year for which figures were readily available uniformly for all India.

The distribution of factories and workers of the more important industries in 1958 per 10,000 of registered factories and workers is given below in descending order of factories :

STATEMENT VI.1

Distribution of factories and workers of the more important industries in 1958 *per* 10,000 *of registered factories*

Rank in order of *proportion* of factories	Description	Per 10,000		
		Registered factories	Workers	Rank in order of proportion of workers
1	2	3	4	5
1	Food except beverages	3,366	1,704	2
2	All textiles	1,264	4,109	1
	(*a*) Cotton mills	471	2,768	
	(*b*) Jute mills	26	836	
	(*c*) Silk mills	373	228	
	(*d*) Knitting mills	118	59	
	(*e*) Woollen mills	36	54	3
3	Tobacco	718	683	6
4	Printing and publishing	706	331	4
5	Ginning, baling, pressing of cotton, jute and wool	705	571	7
6	Metal products (except machinery and transport)	543	316	
7	Wood and cork products (except wooden furniture and fixtures)	449	155	12
	(*a*) Saw mills	333	79	
8	Transport equipment	368	303	8
9	Miscellaneous industries	365	211	11
10	Chemicals and chemical products	332	372	5
11	Tea	272	301	9
12	Non-metallic mineral products (except petroleum and coal)	129	154	13
13	Tanneries and leather finishing	114	55	18
14	Electric machinery and apparatus	101	121	15
15	Footwear and clothing	76	51	20
16	Basic metals (heavy)	73	53	19
17	Furniture and fixtures	71	45	23
18	Rubber and rubber products	70	109	16
19	Cashewnuts	57	253	10
20	Paper and paper products	54	124	14
21	Mica	54	50	21
22	Beverages	42	24	27
23	Coir factories	40	46	22
24	Cordage, rope and twine	22	14	29
25	Plywood	21	25	26
26	Boots and shoes	19	21	28
27	Cycles	10	27	24
28	Cement	9	96	17
29	Rail road equipment	4	11	30
30	Motor vehicles	2	27	25

That India is only in the first stages of her industrial revolution is borne out by the fact that the more important positions in the proportions of factories are generally associated either with consumption needs or with the processing of primary products. While food processing enjoys the pride of place in respect of proportion of factories, cotton spinning and weaving claims the largest proportion of workers. Employment in jute mills numerically constitutes the third most important sector. Tobacco occupies the second place in factories and the fourth in workers. Printing and publishing enjoys a surprisingly high position; this industry readily attracts registration. Metal products excluding machinery and transport equipment occupy significant places both in terms of factories and employment.

A very encouraging sign is the high places already occupied in 1958 by transport equipment, chemicals and chemical products, electrical machinery and apparatus. But the positions occupied by basic metals (heavy) rubber and rubber products were still low, while those occupied by cycles, cement, railway equipment and motor vehicles were at the bottom.

The following statement compares the number of registered factories and registered factory employment in selected industries for all India in 1951 and 1958 :

STATEMENT VI.2

Registered factories and factory employment in selected industries in India 1951 *and* 1958

		No. of factories		Employment	
		1951	1958	1951	1958
	Total of all registered industries	**32,932**	**38,050**	**2,687,378**	**2,902,186**
230 240 250	Ginning, baling, pressing of fibres	2,272	2,682	130,437	165,804
20	Food industries	9,533	12,809	423,123	494,572
	(*a*) Tea	1,194	1,036	102,189	87,286
	(*b*) Coffee	32	48	1,907	7,926
	(*c*) Cashewnuts	202	217	56,240	73,383
	(*d*) Starch	77	129	2,030	3,653
721	Cold storage	43	89	1,235	2,362
21	Beverages	192	160	8,300	7,057
	(*a*) Distilleries	57	52	5,012	4,211
	(*b*) Breweries	1	8	52	707
22	Tobacco	3,181	2,730	139,707	198,087
	(*a*) Cigarette	17	15	10,312	10,838
23-27	All textiles	3,463	4,809	952,563	1,192,407
	(*a*) Cotton mills	1,347	1,791	522,775	803,354
	(*b*) Jute mills	109	98	302,145	242,694
	(*c*) Silk mills	621	1,421	54,778	66,057
	(*d*) Woollen mills	81	135	13,494	15,787
	(*e*) Carpet weaving	69	70	4,497	4,228
	(*f*) Knitting mills	319	447	9,592	17,167
	(*g*) Cordage, rope, twine	73	83	3,327	4,120
	(*h*) Coir	149	154	16,122	13,417
27 & 31	Footwear and wearing apparel	207	288	11,359	14,857
	(*a*) Boots and shoes	38	72	5,039	5,916
28 (less 281)	Wood and cork except furniture	936	1,710	27,872	45,055
	(*a*) Saw mills	643	1,257	14,817	23,026
	(*b*) Plywood	44	82	3,303	7,186
281	Wooden furniture	166	221	4,662	10,186
364	Metal furniture	38	42	2,353	2,629
29	Paper and paper products	106	204	27,675	35,881
30	Printing and publishing	2,001	2,688	77,404	96,020
31	Leather and leather products (except foot-wear)	548	481	17,512	17,032
310	Tanneries and leather finishing	506	434	16,622	15,788

STATEMENT VI. 2

Registered factories and factory employment in selected industries in India 1951 *and* 1958—concld.

		No. of factories		Employment	
		1951	1958	1951	1958
32	Rubber and rubber products ..	150	265	24,427	31,561
	(*a*) Tyres	9	34	4,546	6,443
33	Chemicals and chemical products	1,038	1,265	87,048	108,002
	(*a*) Artificial	57	78	6,339	10,113
	(*b*) Heavy chemicals	70	67	9,913	12,295
	(*c*) Plastic chemicals and pharmaceutical	6	15	136	609
	(*d*) Fine chemicals..	159	249	12,920	21,149
	(*e*) Lac and shellac ..	163	132	9,049	5,912
	(*f*) Matches	154	178	17,972	20,784
	(*g*) Paints etc.	94	131	6,730	7,553
	(*h*) Soap	120	93	7,626	8,630
34-35	Non-metallic mineral products	1,741	1,635	145,392	167,284
340	(*a*) Bricks and tiles	799	490	47,319	44,736
357	(*b*) Glass and glass products ..	220	257	31,508	38,534
	(*c*) Pottery, china, earthenware	69	100	12,639	16,088
	(*d*) Cement	19	34	18,623	27,812
360	Smelting and refining of metals ..	19	30	4,176	6,045
360	Rolling into basic forms ..	12	93	1,135	4,214
369	Metal products (excepting machinery and transport)	1,716	2,065	61,621	91,679
37	Electric machinery apparatus, appliances and supply ..	222	385	30,286	35,269
	(*a*) Radio and phonographs ..	17	55	2,549	6,438
	(*b*) Insulated wires and cables ..	4	53	1,476	5,229

Leaving out several important industries which present problems of classification and comparability improvement is noticeable not only in the total number of factories and total employment but in many important sectors between 1951 and 1958 particularly in (1) ginning pressing and baling (2) food industries (3) coffee (4) cashewnuts (5) starch (6) cold storage (7) cotton mills (8) silk mills (9) woollen mills (10) knitting mills (11) cordage, ropes, twines (12) coir (13) boots and shoes (14) saw mills (15) plywood (16) wooden furniture (17) metal furniture (18) paper and paper products (19) printing and publishing (20) rubber and rubber products (21) tyres (22) chemicals and chemical products (23) glass and glass products (24) pottery, china and earthenware (25) cement (26) smelting and refining of metals (27) rolling of metal into basic forms (28) metal products excepting machinery and transport equipment (29) electric machinery, apparatus, appliances etc. (30) insulated wires and cables.

Andhra Pradesh

Food processing factories claim just under 50 per cent of all registered factories and about 22 per cent of factory workers. Rice mills are pre-eminent in every way, claiming more than two thirds of all food processing factories and about 50 per cent of all factory workers in food factories. Rice mills are closely followed by oil mills (434 factories, 11,221 workers). Sugar mills are the third largest sector of factory employment (5,802) though the number of mills is small (13).

The largest sector of factory employment is provided by Tobacco (92,976). Textile mills of all kinds, among which cotton mills (employment 10,866 in 45 mills) jute mills (employment 8,211 in 4 mills) and silk mills (employment 1,981 in 20 mills) are pre-eminent claim a total of 22,057 workers in 81 establishments. Non-metallic mineral products (ISIC 34) are next in numerical importance (employment 8,460 in 160 mills). Ginning,

pressing and baling of cotton, jute and wool (employment 6,047 in 184 mills).

occupies the next place followed by the more important industries named below :

STATEMENT VI.3

Number of registered factories and workers in the more important industries of Andhra Pradesh, 1958

		No. of factories	Employment
200	Rice mills	1,543	22,158
222	Cigarette	3	1,850
280	Saw mills	178	1,438
281	Furniture and fixtures	51	2,663
290	Paper mills	3	2,174
30	Printing and publishing	160	2,532
310	Tanneries and leather finishing	57	1,291
33	Chemicals and chemical products	69	2,587
341	Cement	5	2,825
348	Mica	42	1,563
369	Metal products (excepting machinery and transport equipment)	136	4,258
384	Transport equipment-repair of motor vehicles	122	3,867
39	Miscellaneous industries	78	2,285
882	Personal services: Restaurants, cafes, etc.	165	3,480

The total number of registered factories in 1958 was 4,551, in 1961 it was 4,918. The total factories employment in 1958 was 201,650, in 1961 223,371.

Assam

In Assam tea is the king (employment 43,463 in 435 factories in 1958). The State suffers from lack of diversity and the more important industries of registered factory employment are as follows :

STATEMENT VI.4

Number of registered factories and workers in the more important industries of Assam, 1958

		No. of factories	Employment
01	Ginning, baling and pressing	8	700
280	Saw mills	94	1,564
285	Plywood	21	1,879
30	Printing and publishing	20	811
334	Matches	1	784
367	Metal containers and steel trunks	4	639
384	Repair of motor vehicles	25	753

Mining of oil and coal is excluded.

Bihar

Apart from the mining of coal, limestone and iron ore the important sectors of registered factory employment in Bihar are as follows :

STATEMENT VI.5

Number of registered factories and workers in the more important industries of Bihar, 1958

		No. of factories	Employment
240	Jute presses	34	694
20	Food industries	2,931	36,339
	(*a*) Flour mills	1,840	4,629
	(*b*) Rice mills	569	5,424
	(*c*) Sugar mills	35	22,303
	(*d*) Edible oils (other than hydrogenated oil)	392	2,151
721	Cold storage	24	599

STATEMENT VI.5

Number of registered factories and workers in the more important industries of Bihar, 1958—concld.

		No. of factories	Employment
22	Tobacco	354	10,129
	(*a*) Cigarette	1	1,984
232	Cotton mills	7	1,803
24	Jute mills	3	6,126
27&31	Footwear and wearing apparel	5	1,462
280	Saw mills	206	1,464
290	Pulp and paper pulp	1	1,269
290	Paper	1	1,734
30	Printing and publishing	336	4,641
332	Fertilizers	1	5,088
330	Heavy chemicals	8	497
331	Lac and shellac	64	1,989
324	Petroleum and coal	9	2,068
325	Coke ovens	5	1,581
34	Non-metallic mineral products	227	29,114
341	(*a*) Cement	7	4,767
348	(*b*) Mica	153	12,340
36	Basic metals	5	2,254
360	Smelting and refining of metals	3	2,240
369	Metal products (excepting machinery and transport equipment)	56	4,024
379	Electrical machinery, apparatus and appliances	5	2,695
378	Radios and phonographs	1	446
376	Insulated wires and cables	1	1,874
38	Transport equipment	98	2,151
384	(*a*) Repair of motor vehicles	97	1,784
39	Miscellaneous industries	63	774

Thus contrary to popular notions, the industrial texture of Bihar was both rich and varied in 1958. In point of number of registered factories it was the fourth State (4,507) after Bombay (9,819) (Maharashtra and Gujarat) Madras, (4,777) and Andhra (4,551), having had half as much again of factories as its neighbour West Bengal (3,121). In point of employment it stood eighth. The range of goods produced is wide and important in the modern industrial sense and cannot fail to have far reaching acceleration effects.

Jammu and Kashmir

The chief industries in Jammu and Kashmir in 1958 were:

STATEMENT VI.6

Number of registered factories and workers in the more important industries of Jammu and Kashmir, 1958

		No. of factories	Employment
207	Edible oils	5	242
26	Silk industry	23	3,619
25	Woollen mills	3	555
270	Carpet weaving	8	954
27&31	Footwear and clothing	4	103
280	Saw mills	6	100
282	Joinery and carpentry	1	180
30	Printing and publishing	4	306
33	Chemicals and chemical products	5	459
337	(*a*) Turpentine and resin	1	131
334	(*b*) Matches	1	125
384	Repair of motor vehicles	3	288
39	Miscellaneous industries	5	291

Apart from mining and quarrying, organised industry in Jammu and Kashmir was mostly in the sphere of consumer goods with a total of 87 mills employing 7,603 in 1958. The figures have gone up to 139 factories employing 10,964 persons in 1961.

Kerala

The chief industries of Kerala in 1958 employing more than 500 persons each were as follows : -

STATEMENT VI.7

Number of registered factories and workers in the more important industries of Kerala, 1958

		No. of factories	Employment
20	Food industries	671	79,972
	(*a*) Rice mills	143	1,790
	(*b*) Edible oils (other than hydrogenated oil)	199	2,127
217	Tea	122	5,905
218	Coffee	5	917
	Cashewnut industry	173	67,408
22	Tobacco—bidi	95	3,242
232	Cotton mills	231	19,283
277	Coir	153	13,399
279	Miscellaneous textiles and fibre (rayon)	1	763
278	Umbrellas	18	1,243
280	Saw mills	122	3,579
285	Plywood	15	1,637
289	Miscellaneous wood industries	75	4,205
281	Furniture and fixtures	26	1,044
290	Paper mills	1	989
30	Printing and publishing	161	3,876
32	Rubber and rubber products	86	2,273
	Miscellaneous—Rubber	70	2,201
33	Chemicals and chemical products	47	4,204
332	Fertilizers	3	1,315
339	Miscellaneous — Chemicals	6	569
334	Matches	21	629
336	Soap	6	1,230
34	Non-metallic mineral products	161	13,489
340	Bricks and tiles	154	12,521
36	Basic metal industries	4	1,107
384	Repair of motor vehicles	92	2,826
39	Miscellaneous industries	22	1,022

With 2,060 registered factories and a total factory employment of 160,720 the small State of Kerala is industrially one of the richest and most forward looking in India with a strong bias for modern industrial skills while her industries concerned with the processing of primary products are no less valuable and organised. The figure for 1961 was 2,412 registered factories and employment of 252,961.

Madhya Pradesh

By contrast Madhya Pradesh, one of the largest and most populous State of India cannot be said to be industrially advanced at all. In 1958 it had a total of 1,745 factories with a total employment of only 140,973. The more important industries in 1958 were as follows. In 1961 there were 1,928 factories with an employment of 155,564.

STATEMENT VI.8

Number of registered factories and workers in the more important industries of Madhya Pradesh, 1958

		No. of factories	Employment
230	Ginning, baling and pressing of cotton	367	24,358
20	Food industries	529	19,599
200	(*a*) Rice mills	255	7,362
201	(*b*) Sugar mills	10	4,118
207	(*c*) Edible oils (other than hydrogenated oil)	116	4,320
21	Beverages	11	621
22	Tobacco	280	18,308
232	Cotton mills	26	42,781
24	Jute mills	1	815
26	Silk mills	6	891
279	Miscellaneous textile mills (rayon etc.)	2	982
280	Saw mills	116	2,873
290	Paper mills	2	1,183
291-292	Paper board, straw board	2	911
30	Printing and publishing	53	2,341
33	Chemicals and chemical products	87	4,788
331	Lac and shellac	24	1,052
34	Non-metallic mineral products	90	12,600
340	(*a*) Bricks and tiles	18	1,089
341	(*b*) Cement	3	3,207
343	(*c*) Stone dressing and crushing	16	838
347	(*d*) Asbestos products	1	1,381
369	Metal products	45	1,124
38	Transport equipment	50	2,339
384	(*a*) Repair of motor vehicles	37	1,745
39	Miscellaneous industries	29	2,371
215	Ice	14	1,517

1958 was the age before Bhilai and the Heavy Electricals in Bhopal. Since then the face of Madhya Pradesh has been changing fast.

-Madras

The following were the more important industries employing more than 500 persons in registered factories in 1958 :

STATEMENT VI.9

Number of registered factories and workers in the more important industries of Madras, 1958

		No. of factories	Employment
230	Cotton ginning, baling and pressing	227	13,036
	Miscellaneous baling, pressing	35	1,106
20	Food industries	1,557	36,411
200	(*a*) Rice mills	887	14,097
201	(*b*) Sugar mills	5	4,280
207	(*c*) Edible oils	259	3,899
217	Tea	113	6,126
218	Coffee	14	1,631
	Starch	111	2,443
21	Beverages	34	602
22	Tobacco	318	12,543
221	(*a*) Cigar	69	2,816
23,24, 25 & 26	All textile mills	745	120,139
232	(*a*) Cotton mills	201	104,438
26	(*b*) Silk mills	37	823
270	(*c*) Carpet weaving	31	694
271	(*d*) Knitting mills	120	2,360
27 & 31	Footwear and clothing	43	1,872
28 (less 281)	Wood and cork (except furniture)	28	1,040
281	Furniture	31	1,876

STATEMENT VI.9

Number of registered factories and workers in the more important industries of Madras, 1958—concld.

		No. of factories	Employment
30	Printing and publishing	432	13,787
310	Tanneries and leather finishing	236	8,295
32	Rubber and rubber products	12	634
33	Chemicals and chemical products	211	18,553
330	(*a*) Heavy chemicals	2	2,245
334	(*b*) Matches	123	12,598
34	Non-metallic mineral products	32	5,153
341	(*a*) Cement	3	2,637
347	(*b*) Asbestos	1	745
36	Basic metal industries	13	505
369	Metal products	148	5,346
37	Electrical machinery, apparatus and appliances	41	1,923
38	Transport equipment	263	17,070
39	Miscellaneous industries	187	7,117

The range is wide and rich except in basic metal industries. The *inter se* balance among the different sectors also looks good.

Mysore

Madras's neighbour Mysore has not in the past grown as much in industry as Madras or Andhra Pradesh, although Mysore has had a long and outstanding record in electricity, steel and iron. The following were the more important industries in Mysore in 1958. The total number of registered factories was 1,218 and the total employment 108,185.

STATEMENT VI.10

Number of registered factories and workers in the more important industries of Mysore, 1958

		No. of factories	Employment
230	Cotton ginning, pressing and baling	238	17,775
20	Food industries	256	18,884
200	(*a*) Rice mills	87	1,306
201	(*b*) Sugar mills	4	2,521
207	(*c*) Edible oils	83	3,195
217	Tea	12	929
218	Coffee	26	5,266
	Cashewnut industry	7	4,310
22	Tobacco	97	6,656
	(*a*) Cigarette	1	1,587
232	Cotton mills	73	34,367
26	Silk mills	113	5,626
28(less 281)	Wood and cork (except furniture)	60	2,970
280	Saw mills	47	1,650
285	Plywood	7	1,035
290	Paper mills	2	579
30	Printing and publishing	86	1,962
33	Chemicals and chemical products	58	2,326
34	Non-metallic mineral products	70	9,087
340	(*a*) Bricks and tiles	49	6,588
341	(*b*) Cement	2	728
343	(*c*) Stone dressing and crushing	8	503
369	Metal products (except machinery and transport equipment)	16	645
379	Electrical machinery, apparatus and appliances	4	2,179
378	Radio and phonographs	3	1,993
38	Transport equipment	65	2,941
384	(*a*) Repair of motor vehicles	64	1,855

The Kolar Gold Mines, Bhadravati and Hindustan Aircrafts are not included in this list.

Orissa

The most significant point about Orissa is the rapid strides she has made despite a late start. How rapid the strides are will appear from the fact that in 1958 it had only 317 registered factories, in 1961, 488. In 1958 factory employment was only 22,625, in 1961 47,739.

The following compares the situations in 1958 and 1961 in respect of the more important industries in Orissa:

STATEMENT VI.11

Number of registered factories and workers in the more important industries of Orissa, 1958 and 1961

		No. of factories		Employment	
		1958	1961	1958	1961
200	Rice mills	95	142	3,615	5,812
220	Bidi	44	61	1,901	1,373
23,24,25, 26&27	Textile mills	16	18	5,106	5,340
280	Saw mills	88	122	1,271	1,784
29	Paper and paper products	1	2	3,448	3,268
30	Printing and publishing	20	30	1,321	1,657
340	Bricks and tiles	..	2	..	2,504
350-352	Pottery, china	2	2	377	738
341	Cement	1	1	2,645	880
36	Basic metals	..	5	..	830
369	Tube making and wire drawing	..	6	..	868
369	Rough castings	..	3	..	155
360	Smelting and refining of metals	..	1	..	353
37	General jobbing and engineering	..	12	..	967
380-381	Repair and manufacture of rail road equipment	..	3	..	296
384	Repair of motor vehicles	14	16	473	564

Substantial improvements are noticeable in the milling of grain, textiles, paper, printing and publishing, porcelain and china, and repair of motor vehicles. Entirely new lines of production which will have incalculable effect in the trend toward modernisation have sprung into existence in the course of three years, chiefly, bricks and tiles, (refractories etc.), basic metals (Rourkela and Hirakud), tube making and wire drawing (Charduar), rough castings, smelting and refining of metals, general jobbing and engineering and repair and manufacture of rail road equipment. The most outstanding event of the last decade apart from Rourkela, has been the network of electricity grids 1958-1961 have indeed been the three most momentous years in the industrial life of Orissa and there is evidence of continuing acceleration in 1964.

Punjab

The following are the more important industries in the State. There were 1,921 registered factories with a total employment of 78,206 in 1958:

STATEMENT VI.12

Number of registered factories and workers in the more important industries of Punjab, 1958

		No. of factories	Employment
230	Cotton ginning, baling and pressing	230	11,200
20	Food industries	187	8,243
200	(*a*) Flour mills	29	1,303
200	(*b*) Rice mills	39	570
201	(*c*) Sugar mills	6	3,342
207	(*d*) Edible oils	52	1,281

STATEMENT VI.12

Number of registered factories and workers in the more important industries of Punjab, 1958—concld.

		No. of factories	Employment
217	Tea	18	344
	Starch	2	580
21	Beverages	6	596
23-27	All textiles	813	30,009
232	(*a*) Cotton mills	230	11,064
26	(*b*) Silk mills	313	7,688
25	(*c*) Woollen mills	95	5,398
27	(*d*) Lace mills	9	851
	(*e*) Carpet weaving	4	710
	(*f*) Knitting mills	109	2,467
27 and 31	Footwear and clothing	8	812
28 (less 281)	Wood and cork (except furniture)	52	1,229
280	(*a*) Saw mills	37	970
290	Paper mills	2	1,886
30	Printing and publishing	79	2,881
32	Miscellaneous rubber and rubber products	26	613
33	Chemicals and chemical products	35	932
34	Non-metallic mineral products	26	3,066
341	(*a*) Cement	2	1,694
360	Basic metal industries (rolling)	25	385
369	Metal products	201	7,038
379	Electrical machinery, apparatus, appliances	47	2,412
376	Insulators and cables	4	620
38	Transport equipment	72	4,065
385	(*a*) Bicycles	5	2,300
39	Miscellaneous industries	89	1,858

Although both the number of registered factories and the extent of factory employment was still modest in Punjab in 1958 the extent of variegation and modernisation was high. The astounding progress that Punjab has made in recent years will appear from the fact that in 1958 and 1961 the number of registered factories were respectively 1,921 and 3,468 where employment in registered factories rose from 78,206 in 1958 to 127,018 in 1961.

Rajasthan

The following table compares the position in 1958 and 1961.

STATEMENT VI.13

Number of registered factories and workers in the more important industries of Rajasthan, 1958 and 1961

		No. of factories		Employment	
		1958	1961	1958	1961
01	Ginning, pressing and baling of cotton, wool etc.	136	193	6,069	7,665
20	Food industries	68	75	2,574	3,432
201	(*a*) Sugar mills	4	7	961	1,101
22	Tobacco	66	45	1,843	997
232	Cotton mills	18	22	11,087	10,951
270	Carpet weaving	4	6	275	179
280	Saw mills	47	123	248	680
30	Printing and publishing	98	173	1,741	2,099
33	Chemicals and chemical products	3	5	157	381
34	Non-metallic mineral products	47	50	7,752	6,706
341	(*d*) Cement	2	2	5,170	3,716
343	(*b*) Stone dressing and crushing	29	30	1,103	1,376
348	(*c*) Mica	8	9	503	487
36	Basic metal industries	8	52	452	3,650
360	(*a*) Rolling into basic forms	8	9	452	702
369	Metal products (except machinery and equipment)	12	14	2,125	2,246
38	Transport equipment	16	42	573	14,413
	(*a*) Railway workshop	...	11	...	12,541
	(*b*) Repair of motor vehicles	13	24	383	754
39	Miscellaneous industries	14	26	654	760
50	Electricity gas and steam	..	36	..	3,328

The number of registered factories in 1958 was 559; in 1961 it was 914. Factory employment in 1958 and 1961 was respectively 36,621 and 57,507. Increases in employment have been largely the result of registration of railway workshops and electricity generation plants.

Uttar Pradesh

The more important industries in Uttar Pradesh in point of registered factories are as follows :

STATEMENT VI.14

Number of registered factories and workers in the more important industries of Uttar Pradesh, 1958

		No. of factories	Employment
01	Ginning, baling and pressing of cotton, wool, jute etc.	18	872
20	Food industries	615	68,647
	(*a*) Flour mills	20	1,042
	(*b*) Rice mills	110	2,470
	(*c*) Dal mills	86	1,292
	(*d*) Sugar mills	198	53,585
	(*e*) Edible oils	106	5,713
	(*f*) Hydrogenated oil	4	1,173
217	Tea	15	951
721	Cold storage	34	796
21	Beverages	14	1,330
	(*a*) Distilleries	12	1,178
22	Tobacco	14	2,635
	(*a*) Cigarettes	1	2,108
23-27	All textiles	115	62,921
	(*a*) Cotton mills	51	50,650
	(*b*) Jute mills	3	6,144
	(*c*) Woollen mills	8	2,979
	(*d*) Carpet-weaving	8	934
	(*e*) Knitting mills	16	906
27 and 31	Footwear and clothing	44	3,577
311	(*a*) Footwear	42	3,404
28 (less 281)	Wood and cork	27	1,407
	(*a*) Plywood	3	547
29	Paper and paper products	12	2,078
30	Printing and publishing	194	9,465
31	Leather and leather products (except footwear)	31	3,253
311	(*a*) Tanneries and leather finishing	28	3,084
33	Chemicals and chemical products	61	5,643
330	(*a*) Heavy chemicals	5	671
335	(*b*) Fine chemicals	26	1,415
34	Non-metallic mineral products	186	15,805
357	(*a*) Glass and glass products	149	14,128
341	(*b*) Cement	1	718
36	Basic metal industries	30	1,006
369	Metal products	102	4,096
379	Electrical machinery, apparatus etc.	8	350
38	Transport equipment	124	7,872
384	(*a*) Repair of motor vehicles	101	5,774
385	(*b*) Manufacture of bicycles	7	378
39	Miscellaneous industries	128	7,790
215	Ice	42	927

West Bengal

In 1958 West Bengal had 3,121 registered factories with an employment of 515,499. The distribution among the main industries was as follows :

STATEMENT VI.15

Number of registered factories and workers in the more important industries of West Bengal, 1958

		No. of factories	Employment
01	Ginning, baling and pressing of fibres	34	1,536
20	Food industries	906	55,648
	(*a*) Flour mills	19	1,520
	(*b*) Rice mills	446	20,325
	(*c*) Dal mills	25	555
	(*d*) Bakery products	34	1,918
	(*e*) Edible oils	67	2,119
	(*f*) Hydrogenated oil	7	1,071
217	Tea	278	26,871
21	Beverages	15	1,039
	(*a*) Distilleries	4	635
22	Tobacco	42	4,446
	(*a*) Cigarette	3	1,673
23-27	All textiles	264	275,239
232	(*a*) Cotton mills	62	44,345
24	(*b*) Jute mills	87	221,398
26	(*c*) Silk mills	7	1,479
25	(*d*) Woollen mills	4	1,163
271	(*e*) Knitting mills	68	1,635
239	(*f*) Cordage, twine, rope	12	2,342
27 & 31	Footwear and clothing	27	1,168
	(*a*) Umbrellas	16	693
28 (less281)	Wood and cork (except furniture)	168	6,074
280	(*a*) Saw mills	80	2,341
285	(*b*) Plywood	34	2,030
286-287	(*c*) Boxes and packing cases	32	745
281	Furniture and fixtures	41	2,174
	(*a*) Wooden furniture	18	869
	(*b*) Metal furniture	23	1,305
29	Paper and paper products	43	12,282
290	(*a*) Paper mills	5	10,316
30	Printing and publishing	244	14,419
31	Leather and leather products (except footwear)	77	1,432
	(*a*) Tanneries and leather finishing	73	1,222
32	Rubber and rubber products	32	20,482
	(*a*) Tyres	2	4,615
	(*b*) Rubber footwear	12	12,015
33	Chemicals and chemical products	190	21,199
	(*a*) Fertilizers (bone mills etc.)	14	1,567
	(*b*) Heavy chemicals	9	1,972
	(*c*) Fine chemicals	50	6,809
	(*d*) Lac and shellac	27	2,309
	(*e*) Matches	5	2,442
	(*f*) Paints etc.	33	2,701
	(*g*) Soap	17	1,588
34	Non-metallic mineral products	93	18,285
	(*a*) Bricks and tiles	12	1,227
357	Glass and glass products	34	8,842
350	Pottery, china etc.	20	5,574
343	Stone dressing and crushing	11	569
347	Asbestos	1	674
36	Basic metal industries	39	4,481
	(*a*) Smelting and refining	8	2,009
	(*b*) Rolling into basic forms	9	1,295
369	Metal products (except machinery and transport equipment)	497	29,134
37	Electrical appliances etc.	70	14,478
38	Transport equipment	122	17,495
	(*a*) Railways	9	1,982
	(*b*) Manufacture of motor vehicles	1	2,859
	(*c*) Repair of motor vehicles	82	5,510
	(*d*) Manufacture of cycles	9	1,780
39	Miscellaneous industries	169	11,161
	(*a*) Scientific industries	17	1,044

The variety and richness of the industrial fabric of West Bengal was exceeded only by Bombay (Gujarat and Maharashtra) in 1958.

Delhi

The following are important industries in Delhi. In 1958 there were 665 registered factories with a total employment of 42,044 or about as much factory employment as in the whole of Orissa in 1961, with a greater diversity except in certain basic industries.

STATEMENT VI.16

Number of registered factories and workers in the more important industries of Delhi, 1958

		No. of factories	Employment
20	Food industries	53	2,114
23-27	All textiles	86	18,927
	(*a*) Cotton mills	17	17,159
	(*b*) Knitting mills	23	434
	(*c*) Cordage, rope, twine	21	429
27 & 31	Footwear and clothing	20	1,057
	(*a*) Clothing	12	863
30	Printing and publishing	117	5,283
33	Chemicals and chemical products	34	2,133
	(*a*) Heavy chemicals	3	962
34	Non-metallic mineral products	25	1,771
369	Metal products	113	3,289
	(*a*) Metal containers, trunks etc.	43	1,224
379	Electrical appliances etc.	58	2,035
	(*a*) Radios and phonographs	21	778
	(*b*) Insulated wires and cables	23	625
38	Transport equipment	63	2,261
	(*a*) Coach building	62	2,189
39	Miscellaneous industries	36	1,234

The balance diversity and expansion that are being unobtrusively and yet steadfastly achieved in the industrial texture of Delhi is timely fascinating. This is largely a tribute to the growing importance of Delhi as the premier commercial, banking, transportation and industrial nerve centre in northern India.

Himachal Pradesh

STATEMENT VI.17

Number of registered factories and workers in the more important industries of Himachal Pradesh, 1958

		No. of factories	Employment
20	Food industries	2	87
217	Tea	1	69
21	Beverages	4	500
	(*a*) Distilleries	1	63
	(*b*) Breweries	3	437
	All textiles	1	55
281	Wooden furniture	1	93
337	Turpentine and resin	2	89
38	Transport equipment	3	86
	(*a*) Repair of motor vehicles	3	86

The total number of registered factories in 1958 was 13 and the employment 910.

Manipur

STATEMENT VI.18

Number of registered factories and workers in the more important industries of Manipur, 1958

		No. of factories	Employment
20	Food industries	36	127
280	Saw mills	1	9

The total number of registered mills was 37 and the employment 136.

Tripura

The total number of registered mills in 1958 was 54 and the total employment 1,936. The distribution was as follows :

STATEMENT VI.19

Number of registered factories and workers in the more important industries of Tripura, 1951 *and* 1958

		No. of factories		Employment	
		1951	1958	1951	1958
20	Food industries	53	41	10,236	1,470
217	Tea	51	38	10,196	1,453
21	Beverages	1	..	10	..
22	Tobacco	10	3	298	79
278	Umbrellas	..	1	..	13
280	Saw mills	..	3	..	27
30	Printing and publishing	..	1	..	36
34	Bricks and tiles	..	2	..	112

It is difficult to account for diminution in the number of tea workers. Neither is it possible to account for the large number of establishments and employment in textiles in 1951 unless all handlooms were registered in 1951 under the old laws of Tripura Administration.

B. Locational preferences

The following industries are restricted in their geographical distribution.

STATEMENT VI.20

Important industries which are found concentrated in a few States of India, 1958

		State	No. of factories in 1958	Employment in 1958
240	Jute presses	**India**	**91**	**2,803**
		Andhra Pradesh	38	749
		Bihar	34	694
		Uttar Pradesh	5	293
		West Bengal	14	1,067
250	Wool baling and pressing	**India**	**18**	**624**
		Bombay	2	68
		Punjab	4	129
		Rajasthan	9	371
		Uttar Pradesh	1	34
		Delhi	2	22
204	Canning and preservation of fish and other sea foods	**India**	**9**	**583**
		Bombay	1	71
		Kerala	4	425
		Mysore	4	87

STATEMENT VI.20

Important industries which are found concentrated in a few States of India, 1958—contd.

		State	No. of factories in 1958	Employment in 1958
202	Gur refineries	**India**	**647**	**12,048**
		Assam	1	13
		Bihar	10	266
		Bombay	607	10,694
		Madhya Pradesh	5	188
		Mysore	1	156
		Uttar Pradesh	23	731
218	Coffee	**India**	**8**	**7,926**
		Andhra Pradesh	1	19
		Bombay	2	93
		Kerala	5	917
		Madras	14	1,631
		Mysore	26	5,266
209	*Cashewnut industry*	***India***	***217***	***73,383***
		Andhra Pradesh	28	827
		Bombay	3	750
		Kerala	173	67,408
		Madras	6	88
		Mysore	7	4,310
338	Salt refineries	**India**	**147**	**9,899**
		Andhra Pradesh	1	7
		Bombay	128	9,300
		Kerala	2	120
		Madras	14	337
		Mysore	1	120
		Delhi	1	15
213	Breweries etc., malt	**India**	**8**	**707**
		Madhya Pradesh	1	100
		Mysore	4	170
		Himachal Pradesh	3	437
214	Soft drinks	**India**	**12**	**196**
		Andhra Pradesh	2	24
		Bombay	8	118
		Uttar Pradesh	1	48
		West Bengal	1	6
221	Cigars	India	91	3,381
		Andhra Pradesh	13	281
		Kerala	9	284
		Madras	69	2,816
222	Cigarettes	**India**	**15**	**10,838**
		Andhra Pradesh	3	1,850
		Bihar	1	1,984
		Bombay	6	1,636
		Mysore	1	1,587
		Uttar Pradesh	1	2,108
		West Bengal	3	1,673
225	Jerda factories	**India**	**167**	**6,507**
		Andhra Pradesh	1	44
		Bombay	122	4,537
		Mysore	38	1,673
		Uttar Pradesh	5	235
		West Bengal	1	18
24	Jute mills	**India**	**98**	**242,694**
		Andhra Pradesh	4	8,211
		Bihar	3	6,126
		Madhya Pradesh	1	815
		Uttar Pradesh	3	6,144
		West Bengal	87	221,398

STATEMENT VI.20

Important industries which are found concentrated in a few States of India, 1958—contd.

		State	No. of factories in 1958	Employment in 1958
272	Lace mills	**India**	**51**	**1,670**
		Bombay	27	494
		Madras	1	22
		Punjab	9	851
		Uttar Pradesh	5	107
		West Bengal	3	55
		Delhi	6	141
277	Coir factories	**India**	**154**	**13,417**
		Bombay	1	18
		Kerala	153	13,399
274	Made up textile goods except wearing apparel	**India**	**22**	**850**
		Bihar	2	64
		Bombay	8	305
		Jammu and Kashmir	4	103
		Madras	1	28
		Punjab	1	9
		West Bengal	6	341
285	Plywood	**India**	**82**	**7,186**
		Assam	21	1,879
		Bihar	1	26
		Bombay	1	32
		Kerala	15	1,637
		Mysore	7	1,035
		Uttar Pradesh	3	547
		West Bengal	34	2,030
286-287	Boxes wooden and packing cases	**India**	**75**	**2,058**
		Bombay	17	806
		Kerala	24	467
		Punjab	2	40
		West Bengal	32	745
364	Metal furniture	**India**	**42**	**2,629**
		Bombay	18	1,229
		Mysore	1	95
		West Bengal	23	1,305
290	Pulp	**India**	**5**	**1,381**
		Bihar	1	1,269
		Bombay	2	53
		Uttar Pradesh	1	23
		West Bengal	1	36
321	Rubber footwear	**India**	**17**	**12,578**
		Bombay	4	532
		Uttar Pradesh	1	31
		West Bengal	12	12,015
337	Turpentine and resin	India	6	708
		Jammu and Kashmir	1	131
		Punjab	2	20
		Uttar Pradesh	1	468
		Himachal Pradesh	2	89
337	Plastic chemicals	India	15	609
		Bombay	10	518
		Madras	4	50
		West Bengal	1	41
339	Vegetable, animal oils and fats	**India**	**18**	**694**
		Andhra Pradesh	4	103
		Bombay	5	114
		Kerala	1	40
		Madhya Pradesh	1	179
		Madras	3	60
		West Bengal	4	198

STATEMENT VI:20

Important industries which are found concentrated in a few States of India, 1958—concld.

		State	No. of factories in 1958	Employment in 1958
331	Lac and shellac	India	132	5,912
		Bihar	64	1,989
		Bombay	8	232
		Madhya Pradesh	24	1,052
		Orissa	1	33
		Uttar Pradesh	8	297
		West Bengal	27	2,309
347	Asbestos	India	11	4,952
		Andhra Pradesh	2	345
		Bihar	1	217
		Bombay	5	1,590
		Madhya Pradesh	1	1,381
		Madras	1	745
		West Bengal	1	674
348	Mica	India	204	14,424
		Andhra Pradesh	42	1,563
		Bihar	153	12,340
		Bombay	1	18
		Rajasthan	8	503
375	Electric lamps (other than glass bulb making)	India	15	1,176
		Bihar	1	265
		Bombay	4	89
		Mysore	1	186
		Punjab	5	195
		Uttar Pradesh	1	42
		West Bengal	3	399
377	Storage batteries	India	28	3,932
		Bombay	12	1,450
		Madras	4	419
		Punjab	2	40
		West Bengal	7	1,960
		Delhi	3	63
376	Insulated wires and cables	India	53	5,229
		Bihar	1	1,874
		Bombay	18	871
		Madras	1	81
		Punjab	4	620
		Uttar Pradesh	2	48
		West Bengal	4	1,110
		Delhi	23	625
375	Electric fans, radiators and other accessories	India	58	8,259
		Bombay	17	1,586
		Madras	1	22
		Punjab	10	414
		Uttar Pradesh	1	25
		West Bengal	20	5,766
		Delhi	9	446
383	Manufacturing motor vehicles	India	8	7,813
		Bombay	7	4,954
		West Bengal	1	2,859
872	Recreation services	India	55	4,704
		Bombay	29	2,570
		Madras	19	1,883
		West Bengal	7	251
870	Cinema studios	India	55	4,704
		Bombay	29	2,570
		Madras	19	1,883
		West Bengal	7	251
882	Restaurants and cafes	India	258	7,069
		Andhra Pradesh	165	3,480
		Bihar	5	125
		Madras	88	3,464

The following is an abstract of the above statement showing how certain industries are concentrated in particular States :

STATEMENT VI.21

Abstract of concentration of industries by States, 1958

Bombay	29	Punjab	9
West Bengal	23	Madhya Pradesh	6
Uttar Pradesh	16	Delhi	6
Madras	15	Assam	2
Andhra Pradesh	13	Jammu and Kashmir	2
Bihar	13	Rajasthan	2
Mysore	11	Himachal Pradesh	2
Kerala	9	Orissa	1

C. Concentration of industries

Although the following industries have a wide distribution throughout India they have pronounced concentrations in the States noted against them :

STATEMENT VI.22

Industries which were widely distributed throughout India in 1958 but had concentrations in certain States only

		State	No. of factories in 1958	Employment in 1958
1	Ginning, baling and pressing of fibres	**India**	**2,682**	**165,804**
		Bombay	1,160	82,053
		Madhya Pradesh	367	24,358
		Mysore	238	17,775
		Madras	262	14,142
		Punjab	234	11,329
2	Flour mills	**India**	**2,049**	**12,735**
		Bihar	1,840	4,629
		Bombay	33	1,780
		West Bengal	19	1,520
3	Rice mills	**India**	**4,527**	**83,017**
		Andhra Pradesh	1,543	22,158
		West Bengal	446	20,325
		Madras	887	14,097
		Bihar	569	5,424
4	Dal mills	**India**	**541**	**8,058**
		Bombay	135	2,418
		Madhya Pradesh	94	1,707
		Uttar Pradesh	86	1,292
5	Bakery products	**India**	**219**	**6,643**
		Bombay	140	3,178
		West Bengal	34	1,918
6	Sugar mills	**India**	**304**	**111,662**
		Uttar Pradesh	198	53,585
		Bihar	35	22,303
		Bombay	24	13,216
		Andhra Pradesh	13	5,802
7	Sugar confectionery	**India**	**86**	**2,230**
		Bombay	52	933
		Andhra Pradesh	9	379
		Madras	8	279
8	Hydrogenated oil	**India**	**35**	**6,569**
		Bombay	10	2,620
		Uttar Pradesh	4	1,173
		West Bengal	7	1,071

STATEMENT VI.22

Industries which were widely distributed throughout India in 1958 but had concentrations in certain States only—contd.

		State	No. of factories in 1958	Employment in 1958
9	Tea factories	**India**	**1,036**	**87,286**
		Assam	435	43,463
		West Bengal	278	26,871
		Madras	113	6,126
		Kerala	122	5,905
10	Distilleries	**India**	**52**	**4,211**
		Uttar Pradesh	12	1,178
		West Bengal	4	635
		Punjab	3	574
11	Bidi	**India**	**1,985**	**100,499**
		Bombay	452	36,515
		Madhya Pradesh	280	18,308
		Andhra Pradesh	414	17,352
		Bihar	345	8,069
12	Cotton mills	**India**	**1,791**	**803,354**
		Bombay	818	450,385
		Madras	201	104,438
		Uttar Pradesh	51	50,650
		West Bengal	62	44,345
13	Silk mills	**India**	**1,421**	**66,057**
		Bombay	877	42,916
		Punjab	313	7,688
		Mysore	113	5,626
14	Woollen mills	**India**	**135**	**15,787**
		Punjab	95	5,398
		Bombay	12	4,757
15	Knitting mills	**India**	**447**	**17,167**
		Bombay	46	7,742
		Punjab	109	2,467
		Madras	120	2,360
		West Bengal	68	1,635
16	Footwear, other wearing apparel and made up textile goods	**India**	**288**	**14,857**
		Uttar Pradesh	44	3,577
		Bombay	80	2,728
		Madras	43	1,872
17	Saw mills	**India**	**1,267**	**23,026**
		Bombay	212	3,739
		Kerala	122	3,579
		Madhya Pradesh	116	2,873
		West Bengal	80	2,341
18	Wooden furniture	**India**	**221**	**10,186**
		Andhra Pradesh	49	2,620
		Madras	30	1,847
		Bombay	48	1,777
19	Paper mills	**India**	**39**	**25,466**
		West Bengal	5	10,316
		Orissa	1	3,448
		Andhra Pradesh	3	2,174
		Punjab	2	1,886
20	Printing and publishing	**India**	**2,688**	**96,020**
		Bombay	683	30,618
		West Bengal	244	14,419
		Madras	432	13,787
		Uttar Pradesh	194	9,465

STATEMENT VI.22

Industries which were widely distributed throughout India in 1958 but had concentrations in certain States only—contd.

		State	No. of factories in 1958	Employment in 1958
21	Tanneries and leather finishing	**India**	**434**	**15,788**
		Madras	236	8,295
		Uttar Pradesh	28	3,084
		Andhra Pradesh	57	1,291
		West Bengal	73	1,222
22	Chemicals and chemical products	**India**	**1,265**	**108,002**
		Bombay	371	35,684
		West Bengal	190	21,199
		Madras	211	18,553
		Bihar	89	8,371
23	Artificial manures	**India**	**78**	**10,113**
		Bihar	1	5,088
		West Bengal	14	1,567
		Kerala	3	1,315
24	Heavy chemicals	**India**	**67**	**12,295**
		Bombay	29	4,777
		Madras	2	2,245
		West Bengal	9	1,972
25	Fine chemicals and pharmaceuticals	**India**	**249**	**21,149**
		Bombay	98	9,125
		West Bengal	50	6,809
		Uttar Pradesh	26	1,415
		Madras	18	1,033
26	Matches	**India**	**178**	**20,784**
		Madras	123	12,598
		West Bengal	5	2,442
		Bombay	10	2,074
		Uttar Pradesh	1	1,292
27	Soap	**India**	**93**	**8,630**
		Bombay	25	4,422
		West Bengal	17	1,588
		Kerala	6	1,230
28	Glass and glass products	**India**	**257**	**38,534**
		Uttar Pradesh	149	14,128
		West Bengal	34	8,842
		Bombay	43	8,604
29	Pottery, china and earthenware	**India**	**100**	**16,088**
		West Bengal	20	5,574
		Bombay	24	3,725
		Madhya Pradesh	8	2,885
30	Basic metal industries	**India**	**277**	**15,489**
		Bombay	146	5,150
		West Bengal	39	4,481
		Bihar	5	2,254
		Kerala	4	1,107
		Uttar Pradesh	30	1,006
31	Metal containers and steel trunks	**India**	**771**	**30,946**
		Bombay	247	11,088
		West Bengal	99	7,049
		Madras	71	2,770
		Punjab	90	2,478
32	Bolts, nuts, nails, springs, chains etc.	**India**	**220**	**12,616**
		West Bengal	80	7,876
		Bombay	75	2,280
		Punjab	33	1,551
33	Type foundry	**India**	**46**	**1,362**
		Madras	19	687
		West Bengal	6	270
		Bombay	11	215

STATEMENT VI.22

Industries which were widely distributed throughout India in 1958 but had concentrations in certain States only—concld.

		State	No. of factories in 1958	Employment in 1958
34	Welding	**India**	**40**	**1,579**
		West Bengal	5	652
		Bombay	18	452
		Madras	5	392
35	Safes and vaults	**India**	**71**	**7,280**
		Bombay	36	4,535
		Andhra Pradesh	5	1,689
36	Electrical, general and jobbing engineering	**India**	**77**	**4,427**
		Bombay	22	1,443
		Madras	32	1,284
		West Bengal	10	1,013
37	Manufacture of bicycles	**India**	**40**	**7,704**
		Punjab	5	2,300
		West Bengal	9	1,780
		Bombay	4	1,578
		Madras	5	1,089
38	Professional scientific measuring and controlling instruments	**India**	**74**	**3,509**
		West Bengal	17	1,044
		Uttar Pradesh	18	986
		Bombay	15	552

STATEMENT VI.23

Abstract of statement VI.22

Bombay	32	Bihar	7
West Bengal	28	Kerala	5
Madras	19	Madhya Pradesh	5
Uttar Pradesh	13	Mysore	2
Punjab	9	Assam	1
Andhra Pradesh	8	Orissa	1

The two tables of regional distribution and regional concentration bring out very clearly the extent to which registered factories and factory employment are concentrated in a few States.

The following statement shows the pre-eminence enjoyed by a number of States in 1958 both in respect of (a) preference of location where the industry is located in a few areas and (b) concentration where the industry is widely distributed all over India.

STATEMENT VI.24

Locational preference and concentration in certain States, 1958

State	Preference of location where industry is regionally restricted: Number of industries	Preference of location where industry is regionally restricted: Number of industries in which maximum factory employment is provided by the State	Concentration of industries where industry is widely distributed over India: Number of industries	Concentration of industries where industry is widely distributed over India: Number of industries in which maximum factory employment is provided by the State
Bombay	29	9	32	19
West Bengal	23	10	28	5
Uttar Pradesh	16	2	13	4
Madras	15	1	19	3
Andhra Pradesh	13	1	8	2
Bihar	13	3	7	2
Mysore	11	1	2	..
Kerala	9	3	5	..
Punjab	9	1	9	2
Madhya Pradesh	6	..	5	..
Delhi	6	..	..	..
Assam	2	..	1	1
Jammu and Kashmir	2	..	..	..
Rajasthan	2	1	..	..
Himachal Pradesh	2	1	..	..
Orissa	1	..	1	..

CHAPTER VII

WORKERS IN THE ORGANISED AND UNORGANISED SECTORS OF NON-HOUSEHOLD AND HOUSEHOLD INDUSTRY

WE HAVE EXAMINED the distribution of establishments in the household and non-household sectors. It will be rewarding to appraise this analysis of establishments by the distribution of workers in household and non-household industry as recorded in 1961 Census in each of the major industry groups 20 to 39 of the ISIC, taking the total of workers in ISIC Division 2 and 3 as the universe.

The absolute 1961 Census figures are given in Table VII.1. The distribution of these figures per 10,000 of total workers into (a) household industry and non-household industry, (b) rural and urban and (c) each of the major ISIC groups is given in Table VII.2.

The marked preponderance of workers in household industry over those in non-household industry on the all-India level gives away the basic structure of the Indian manufacturing sector and shows how unorganised household industry cannot be ignored. The household sector is particularly strong in the rural areas where the proportion of workers in it exceeds that in non-household industry by more than three times. Although the proportion of total workers in rural and urban areas is as 58 to 42, the internal components of household and non-household proportions are almost reversed in rural and urban. Thus whereas in rural areas the proportion between workers in household industry and those in non-household industry is as 44 to 14 (=58), that in urban areas is as 11 to 31 (=42).

Taking 55 : 45 as the all-India average of distribution of all workers into household and non-household industry, the States which show higher and lower proportions than this average, are given below :

Distribution of States according to proportion of workers in household and non-household industry per 100 *of all workers in Division* 2 *and* 3

Above Indian average (Proportion of household workers higher than all-India average)		All-India average 55:45	Below Indian average (Proportion of household workers lower than all-India average)	
Andhra Pradesh	75:25		Gujarat	37:63
Assam	73:27		Kerala	48:52
Bihar	68:32		Maharashtra	36:64
Jammu and Kashmir	65:35		Punjab	53:47
Madhya Pradesh	70:30		West Bengal	25:75
Madras	57:43			
Mysore	56:44			
Orissa	84:16			
Rajasthan	66:34			
Uttar Pradesh	65:35			

The above statement needs no paraphrase.

The following statements show the distribution of States according to proportion of workers in household and non-household industry in rural and urban areas :

Distribution of States according to proportion of workers in household and non-household industry in rural areas in Division 2 and 3

Above all-India proportion (Proportion of household workers higher than all-India proportion)		All-India average 44:14=58	Below all-India proportion (Proportion of household workers lower than all-India proportion)	
Andhra Pradesh	61:10=71		Gujarat	27:12=39
Assam	68:15=83		Kerala	43:39=82
Bihar	61:15=76		Madras	38:14=52
Jammu and Kashmir	50: 9=59		Maharashtra	25: 8=33
Madhya Pradesh	56: 4=60		Punjab	44:16=60
Mysore	37:12=49		West Bengal	21:19=40
Orissa	79: 5=84			
Rajasthan	51: 9=60			
Uttar Pradesh	53:12=65			

Distribution of States according to proportion of workers in household and non-household industry in urban areas in Division 2 and 3

Above all-India proportion (Proportion of household workers higher than all-India proportion)		All-India average 11:31=42	Below all-India proportion (Proportion of household workers lower than all-India proportion)	
Andhra Pradesh	13:15=28		Gujarat	9:51=60
Assam	5:12=17		Kerala	5:13=18
Bihar	7:17=24		Maharashtra	11:55=66
Jammu and Kashmir	14:26=40		Punjab	9:30=39
Madhya Pradesh	14:25=39		West Bengal	4:56=60
Madras	19:29=48			
Mysore	18:33=51			
Orissa	5:11=16			
Rajasthan	15:24=39			
Uttar Pradesh	12:23=35			

It will be seen that all the three statements present a picture of great consistency in the respective positions enjoyed by each State except Madras which is at the cross-roads. While all other States are very pronouncedly and uniformly either on this or the other side of the all-India average, Madras betrays a wavering position inasmuch as while in the urban areas the proportion of workers in household industry is still very substantial, it is not so substantial in the rural areas. In other words, the non-household industry or organised sector has made large inroads and come to stay in the rural areas of Madras in a more decisive way than in the urban tracts. While only Gujarat, Kerala, Maharashtra, Punjab and West Bengal may be acclaimed as having decidedly broken away from dependence on household industry in favour of non-household industry both in the rural and urban areas, the proportion of workers in household industry is still appreciably more than 50 per cent of all workers in manufacturing (Division 2 and 3) in the rural areas of Andhra Pradesh, Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. What is more, the proportion of workers in household industry is more than half that of workers in non-household industry in the States of Andhra Pradesh (where the two are almost equal), Jammu and Kashmir, Madhya Pradesh, Madras, Mysore, Rajasthan and Uttar Pradesh. It is only in Assam, Bihar and Orissa that the proportion of workers in household industry in urban areas is less than half that of workers in non-household industry.

In the States of Gujarat, Kerala, Madras, Maharashtra, Punjab and West Bengal, the proportion of household industry in each is higher than that of non-household industry in rural areas. But

the tables are turned very pronouncedly in the urban areas of all these States except Madras where the proportion of household industry is in every case several times less than that of non-household industry. It therefore follows that Gujarat, Kerala, Maharashtra, Punjab and West Bengal are the only States which display pronounced features of a break away from dependence on household industry for work and living.

It is interesting to note that the basic consumer and wage goods industries are still uppermost in India, both in the household and in the non-household sectors in urban as well as rural areas and command the bulk of employment, *viz.*, cotton textiles, wood and wood products. foodstuffs, miscellaneous textiles, non-metallic mineral products (mainly domestic pottery and potter's roofing tile), basic metals and their products (much of it village blacksmithy) and tobacco products. It is perhaps no accident that in all these seven basic industries, except, again, understandably enough for basic metals and their products, proportional total employment in the household sector is considerably more than that in the non-household or semi-organised and organised sector. Leather and leather products, although it comes ninth in order of employment can be regarded as a good substitute for basic metals and their products in the wage goods sector, in which, too, employment in household industry is much stronger than in non-household. Woollen textiles and silk textiles again are still more household than non-household because of their protective and traditional uses.

But it is in the non-wage goods and more sophisticated and more modern domain of production, requiring higher levels of technology, developed tools and inanimate power that the non-household sector rapidly comes into its own and far outstrips the household sector, viz. 39 Miscellaneous manufactures, 38 Transport equipment, 24 Jute textiles, 33 Chemicals and chemical products, 34 Machinery and electrical equipment, 30 Printing and publishing, 21 Beverages, 29 Paper and paper products and 32 Rubber, petroleum and coal products.

We may now attempt an appreciation by major groups of industry.

Major Group 20 : Foodstuffs

This industry claims the third place for all-India in the range of major groups in respect of proportion of workers engaged per 10,000 of all workers. The premier industry in the matter of proportional engagement is still cotton textiles both in the household and non-household sectors. The second most important industry in this regard is manufacture of wood and wood products. The third place is taken by foodstuffs.

The industry is overwhelmingly based in rural areas, where, as may be anticipated, the household industry sector claims more than double the proportion of employment in the urban. Organised food industry in the non-household industry sector is about as important in rural as in urban areas in the matter of employment.

From the point of view of employment in the household sector in rural areas, the following States appear in order of concentration : Orissa (1,575), Bihar (1,291), Uttar Pradesh (1,105), Madhya Pradesh (598), Madras (485), Kerala (466), Jammu and Kashmir (401), Andhra Pradesh (382), Punjab (310), Rajasthan (296), West Bengal (284), Mysore (166), Maharashtra (164), Assam (155), Gujarat (119).

The following States are ranked in order of proportional employment in the non-household industry sector in rural areas : Kerala (878), Uttar Pradesh (403), West Bengal (314), Bihar (269), Maharashtra (250), Punjab (229), Madras (194) Assam (183), Andhra Pradesh (171), Jammu and Kashmir (164), Mysore (151), Orissa (134), Rajasthan (130), Gujarat (115), Madhya Pradesh (73).

The following States are ranked in order of proportional employment in the

non-household industry sector in the urban areas : Punjab (523), Maharashtra (313), Rajasthan (305), Mysore (297), West Bengal (297), Uttar Pradesh (283), Bihar (274), Gujarat (270), Madras (265), Jammu and Kashmir (253), Madhya Pradesh (250), Andhra Pradesh (198), Kerala (177), Assam (123), Orissa (100).

Major Group 21 : Beverages

Wherever prohibition has been introduced beverages have gravitated toward urban areas, but this industry is still considerable where prohibition does not obtain. In respect of employment this industry, mainly non-household, occupies the fourth place (103), from the bottom, the other three in ascending order from below being 32 Rubber, petroleum and coal products (40), 29 Paper and paper products (45), and 25 Woollen textiles (95).

Major Group 22 : Tobacco products

This is the seventh major group of industry in order of importance in proportional employment. Largely conducted as a household industry (mainly bidi) in rural areas it is an extensive non-household industry in urban areas.

This major group enjoys considerable strength in the household industry sector in the rural areas of the following States, mainly on account of bidi : Bihar (356), Madhya Pradesh (957), Maharashtra (344) and West Bengal (243). The non-household sector is strong in the rural areas of Andhra Pradesh (111), Bihar (131), Kerala (376), Mysore (129) and West Bengal (142). The strength of the non-household industry sector in the urban areas of the following States is mainly on account of cigar and cigarette factories : Andhra Pradesh, Bihar, Gujarat, Kerala, Madras, Maharashtra, Mysore, Rajasthan, Uttar Pradesh and West Bengal. Andhra Pradesh, Kerala, Madras and Mysore have many tobacco curing establishments in the non-household sector in rural areas. Madhya Pradesh's high ratio in the urban non-household industry sector is on account of bidi factories.

Major Group 23 : Textile-Cotton

Cotton textiles is still by far and away the undisputed king, being about double (2,323) the second most important industry in respect of employment : wood and wood products (1,215). It is overwhelmingly a household industry in rural areas, the proportion of employment in the non-household sector being just over one-ninth that in the household. But in urban areas the non-household industry sector is stronger than the household by about 45 per cent. Cotton textiles in the household sector is concentrated in the rural and urban areas of Andhra Pradesh (2,667), Assam (6,306), Bihar (1,528), Madras (2,845), Mysore (1,560), Orissa (2,226) and Rajasthan (1,502). Cotton textiles in the non-household sector (mainly power looms and textile mills) is mainly concentrated in the rural and urban areas of Gujarat (2,903), Madras (881) and Maharashtra (2,048). It occupies the lower rungs in Kerala (378), Madhya Pradesh (588), Mysore (569), Punjab (509), Rajasthan (434), Uttar Pradesh (400) and West Bengal (456). In all other States—Andhra Pradesh, Assam, Bihar, Jammu and Kashmir and Orissa —the proportional employment is still quite low in the urban sector.

Major Group 24 : Textile-Jute

This major group of industry occupies the 11th place in order of proportional employment. There is very little employment in this major group in Assam (although Assam is a large producer of jute), Gujarat, Jammu and Kashmir and Kerala. It is an overwhelmingly rural and household industry in Andhra Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan and Uttar Pradesh. On the contrary it is an overwhelmingly urban and non-household industry in West Bengal. In Bihar and Madhya Pradesh, the industry is important in the household sector in rural areas and in the non-household sector in urban areas.

Major Group 25 : Textile-Wool

This is a low-employment major group of industry, its place in the matter of employment being 17th among the 19

major groups. It is negligible only in Kerala. It is an overwhelmingly household industry in the rural and urban sectors in the States of Andhra Pradesh, Assam, Bihar, Jammu and Kashmir, Madhya Pradesh and Mysore. It is strong in the rural areas of Maharashtra and Mysore. On the other hand, it is primarily a non-household industry in the urban areas of Gujarat, Madras, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal.

Major Group 26 : Textile-Silk

This, too, is a low employment industry, its place being 15th among the 19 major groups of industry. The industry obtains in all States but is strongest, in respect of employment, in Mysore (269), Madras (264) and Jammu and Kashmir (253). It is mainly a household industry in the rural and urban areas of the States of Assam, Bihar, Madras and Uttar Pradesh. It is mainly a non-household industry in the rural and urban areas of Gujarat, Jammu and Kashmir, Kerala, Madhya Pradesh and Maharashtra.

Major Group 27 : Textile-Miscellaneous

This major group holds the fourth place (902) in order of employment (after cotton textiles, wood products and foodstuffs). Evidently the miscellaneous textiles and garment industries offer large employment not only in the rural and urban areas but also in the household and non-household sectors. This major group is strongest in proportional employment in Kerala (2,991) followed by Jammu and Kashmir (1,614), Punjab (1,199), Gujarat (1,078) and Uttar Pradesh (1,035). It is strong in the household industry sector in the rural areas of all States except Assam and West Bengal where the non-household industry sector is stronger even in rural areas. So far as the urban areas are concerned, this major group as non-household industry is stronger than in the household industry sector in all States. This is as may only be expected, since consumption of miscellaneous textiles and made up garments is much higher in urban than rural areas.

Major Group 28 : Wood and wood products

This is the second most important major group of industry in respect of employment (1,215), coming as it does next to cotton textiles (2,323). This distinction however is conferred on it by the high proportional employment in this major group in the household industry sector in rural areas in all-India (780) and in the States of Andhra Pradesh, Bihar, Gujarat, Jammu and Kashmir, Madhya Pradesh, Madras, Maharashtra, Mysore, Orissa, Punjab, Rajasthan, Uttar Pradesh and West Bengal. This major group is much stronger in the non-household than in the household industry sector in the urban areas of Assam, Gujarat, Jammu and Kashmir, Kerala, Madras, Maharashtra, Mysore, Punjab, Rajasthan, Uttar Pradesh and West Bengal. The non-household industry is fairly strong even in the rural areas of Assam, Kerala and West Bengal. The household and non-household sectors are fairly matched in the urban areas of Andhra Pradesh, Bihar, Madhya Pradesh, Orissa and Rajasthan.

Major Group 29 : Paper and paper products

This is a major group of low-employment industry which is overwhelmingly based in the non-household industry sector of urban areas. It holds the 18th place among the major groups of industry in the matter of proportional employment. This major group of industry is mainly concentrated in the non-household industry sector in the urban areas of Andhra Pradesh, Jammu and Kashmir, Madhya Pradesh, Maharashtra, Mysore, Orissa, Punjab and West Bengal.

Major Group 30 : Printing and publishing

This major group of industry which holds the 14th place in respect of proportional employment in all-India is overwhelmingly in the urban and non-household industry sectors (except in Kerala

where it is in both rural and urban areas). Even when rurally located it is still predominantly a non-household industry. From the point of proportional employment this major group is strong in the urban areas of Maharashtra (220), West Bengal (207), Madras (148), Uttar Pradesh (105), Kerala (103), Gujarat (102) and Punjab (101). The States of Andhra Pradesh (58), Assam (58), Bihar (56), Jammu and Kashmir (49), Madhya Pradesh (48), Mysore (91), Orissa (46) and Rajasthan (81) are much below the all India average of 122.

Major Group 31 : Leather and leather products

This major group of industry holds the 9th place in proportional employment among the 19 major groups of industry. It is predominantly in the household industry sector and in rural areas, although the non-household sector in rural areas is not negligible, while it exceeds the household industry sector in urban areas by nearly three-fourths as much again. The major group is exceptionally strong in the household sector in the rural areas of Andhra Pradesh (506), Madhya Pradesh (609), Punjab (772) and Rajasthan (1,162). It is also moderately strong in Bihar (147), Gujarat (331), Jammu and Kashmir (253), Madras (160), Maharashtra (220), Mysore (208), Orissa (51) and Uttar Pradesh (205). Proportional employment in rural areas either in the household or non-household sector is less than that in the urban areas in the non-household sector in Assam, Kerala and West Bengal. Proportional employment in non-household industry is again much stronger than in household industry in the rural as well as urban areas of these three States. Although the household industry sector is strong both in rural and urban areas of Uttar Pradesh the non-household sector is not negligible in the rural areas of that State and is, of course, much stronger in the urban areas.

Major Group 32 : Rubber, petroleum and coal products

This major group comes last among the 19 major groups of industry. It is overwhelmingly urban based and in the non-household industry sector. From the point of proportional employment, the major group is strong in Assam (167), West Bengal (131), Maharashtra (101) and Kerala (41). All other States are below the all-India average. Andhra Pradesh (8), Jammu and Kashmir (6), Madhya Pradesh (6), Mysore (10), Orissa (11), Rajasthan (12) and Uttar Pradesh (6) being particularly low.

Major Group 33 : Chemicals and chemical products

This major group holds the 12th place in respect of proportional employment in all-India. It is also predominantly urban based and in the non-household sector and is concentrated, in terms of proportional employment, in the States of Maharashtra (387), Gujarat (382), Madras (282), West Bengal (252), Kerala (159), Mysore (134) and Punjab (122).

The States that are much below the all-India average in proportional employment are : Andhra Pradesh (73), Assam (45), Bihar (115), Jammu and Kashmir (35), Madhya Pradesh (87), Orissa (43), Rajasthan (60) and Uttar Pradesh (77).

Major Groups 34-35 : Non-metallic mineral products

This twin group occupies the 5th place in point of employment in all-India, the non-household industry sector being slightly more than three-fourths of the household sector. This proves that the industry has great vitality and is solidly planted in both the household and non-household sectors in rural and urban areas.

In proportional employment the major group is particularly strong in both household and non-household sectors in the rural areas of Bihar, Kerala, Madhya Pradesh, Madras, Mysore, Punjab, Rajasthan, Uttar Pradesh and West Bengal. This is because of the location of large factories for cement, refractories, fire clay, brick (-kilns), sanitary ware, porcelain, stone ware, insulators, piping and cement ware in the rural and urban areas of these States. The position is promising

also in the States of Andhra Pradesh, Assam, Gujarat and Orissa.

Major Group 36 : Basic metals and their products

This major group occupies the 6th place among the 19 major groups of industry. It is strong (328) in proportional employment in the urban non-household industry sector, although ordinary blacksmithy still provides a large proportion of employment (220). On the whole, the non-household sector (410) is stronger than in household (262). The former is substantial (82) even in rural areas. This major group is still very strong in the household industry sector in Orissa (631), where despite the Rourkela Steel Works and the aluminium smelter in Hirakud, proportional employment in non-household industry is only 394 compared to 631 in the household sector. In Rajasthan and Andhra Pradesh, too, the proportion in household industry is substantially higher than that in non-household industry. The proportion in non-household industry is above that in household industry in Assam, Bihar, Gujarat, Madras, Maharashtra, Punjab and West Bengal. The proportion in household industry is greater than that in non-household, although by a small margin, in the States of Jammu and Kashmir, Kerala, Madhya Pradesh, Mysore and Uttar Pradesh.

Major Group 37 : Machinery and electrical equipment

This major group occupies the 13th place among the major groups of industry and is overwhelming urban based in the non-household industry sector. The industry is particularly strong in respect of proportional employment in Madhya Pradesh (153), Maharashtra (304), Mysore (211), Punjab (229) and West Bengal (285). All other States are below the all India average, although the positions of Bihar (57), Gujarat (62), Madras (81), Rajasthan (61) and Uttar Pradesh (39) are fair, proportional employment being almost entirely in the non-household sector, suggesting that the industry is of recent growth in these States with appreciable capital investments.

Major Group 38 : Transport equipment

This major group holds the 10th place in point of proportional employment in all India, and is overwhelming urban based in the non-household industry sector, whatever employment that is noticeable in the household sector being confined to cartwrights, car and animal drawn coach builders. In proportional employment the industry is particularly strong in Madras (436), Maharashtra (474), Mysore (434), Punjab (362), Uttar Pradesh (333) and West Bengal (521). The remaining States are below the all-India average of 322. Bihar (271), Andhra Pradesh (213), Assam (196), Madhya Pradesh (161), Gujarat (155), Rajasthan (140) and Kerala (125) are in the lower middle rungs while the remaining States of Jammu and Kashmir (94) and Orissa (85) are low.

Major Group 39 : Miscellaneous manufacturing industries

This major group holds the 8th place in respect of proportional employment. The household sector in rural and urban areas is quite strong although the non-household sector in urban areas emerges as the strongest single area of proportional employment within the major group. The household sector is particularly strong in the rural areas of Andhra Pradesh (257), Bihar (269), Kerala (119), Madhya Pradesh (211), Mysore (216), Orissa (411) and Uttar Pradesh (242). But the non-household sector in urban areas emerges even more forcefully by contrast to the former in Gujarat (271), Jammu and Kashmir (206), Madras (237), Maharashtra (345), Punjab (274) and West Bengal (462). The household sector in rural areas and the non-household sector in urban areas are fairly approximate to each other in Assam, Mysore and Rajasthan. The non-household industry sector is fairly strong even in the rural areas of Assam, Kerala and West Bengal.

TABLE

Workers in household and non-household sectors rural and urban

State		Total workers (Div. 2 & 3)			20-Foodstuffs		21-Beverages		22-Tobacco products	
		Total	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI
1		2	3	4	5	6	7	8	9	10
INDIA .	T	17,906,489	9,931,095	7,975,394	1,106,063	953,140	32,484	152,871	560,342	413,423
	R	10,379,327	7,943,931	2,435,396	960,245	470,846	25,584	108,337	401,397	157,234
	U	7,527,162	1,987,164	5,539,998	145,818	482,294	6,900	44,534	158,945	256,189
1 Andhra Pradesh	T	1,903,335	1,427,660	475,675	100,561	70,170	9,912	59,993	50,173	69,765
	R	1,364,653	1,168,545	196,108	72,776	32,473	7,401	56,442	31,757	21,219
	U	538,682	259,115	279,567	27,785	37,697	2,511	3,551	18,416	48,546
2 Assam . .	T	383,525	279,891	103,634	6,447	11,729	509	3,942	296	1,289
	R	317,808	261,615	56,193	5,937	7,015	488	3,798	265	517
	U	65,717	18,276	47,441	510	4,714	21	144	31	772
3 Bihar . .	T	1,327,369	901,473	425,896	191,119	72,012	10,031	8,256	57,784	30,066
	R	1,009,533	810,184	199,349	171,411	35,680	8,840	5,869	47,286	17,296
	U	317,836	91,289	226,547	19,708	36,332	1,191	2,387	10,498	12,770
4 Gujarat . .	T	847,539	311,380	536,159	13,631	32,613	96	2,221	10,876	18,619
	R	332,384	232,409	99,975	10,060	9,732	36	253	6,391	5,682
	U	515,155	78,971	436,184	3,571	22,881	60	1,968	4,485	12,937
5 Jammu and	T	95,055	61,602	33,453	4,783	3,968	90	58	30	..
Kashmir	R	56,426	47,996	8,430	3,809	1,564	5	1	1	..
	U	38,629	13,606	25,023	974	2,404	85	57	29	..
6 Kerala . .	T	1,012,140	482,668	529,472	54,043	106,743	1,068	24,319	11,679	54,103
	R	830,531	436,616	393,915	47,209	88,879	1,018	22,762	10,895	38,001
	U	181,609	46,052	135,557	6,834	17,864	50	1,557	784	16,102
7 Madhya Pradesh	T	1,128,410	791,565	336,845	78,879	36,405	2,085	3,154	152,458	18,157
	R	683,101	632,511	50,590	67,496	8,203	1,032	771	108,020	3,979
	U	445,309	159,054	286,255	11,383	28,202	1,053	2,383	44,438	14,178
8 Madras . .	T	1,988,908	1,140,606	848,302	106,836	91,241	1,114	12,946	54,580	47,240
	R	1,037,890	765,253	272,637	96,408	38,517	619	3,347	30,880	11,835
	U	951,018	375,353	575,665	10,428	52,724	495	9,599	23,700	35,405
9 Maharashtra .	T	2,047,269	742,934	1,304,335	44,582	115,294	2,410	6,655	96,694	50,286
	R	684,283	511,611	172,672	33,500	51,174	2,187	1,876	70,532	11,735
	U	1,362,986	231,323	1,131,663	11,082	64,120	223	4,779	26,162	38,551
10 Mysore . .	T	950,112	528,232	421,880	23,735	42,595	1,461	6,941	31,119	35,501
	R	464,626	355,633	108,993	15,793	14,328	1,097	2,893	20,892	12,260
	U	485,486	172,599	312,887	7,942	28,267	364	4,048	10,227	23,241
11 Orissa . .	T	543,468	457,271	86,197	89,375	12,729	765	1,264	12,262	2,608
	R	456,879	428,922	27,957	85,578	7,265	702	779	9,727	543
	U	86,589	28,349	58,240	3,797	5,464	63	485	2,535	2,065
12 Punjab . .	T	759,054	404,996	354,058	29,853	57,122	267	2,457	107	232
	R	460,414	336,795	123,619	23,517	17,414	77	669	79	47
	U	298,640	68,201	230,439	6,336	39,708	190	1,788	28	185
13 Rajasthan .	T	509,954	337,929	172,025	20,097	22,198	268	886	2,255	5,865
	R	308,880	260,588	48,292	15,083	6,628	54	124	684	855
	U	201,074	77,341	123,733	5,014	15,570	214	762	1,571	5,010
14 Uttar Pradesh .	T	2,258,747	1,457,912	800,835	275,236	154,998	1,771	5,093	29,632	19,971
	R	1,470,058	1,187,400	282,658	249,520	91,083	1,485	2,545	21,125	7,611
	U	788,689	270,512	518,177	25,716	63,915	286	2,548	8,507	12,360
15 West Bengal	T	1,760,738	441,578	1,319,160	53,844	107,622	559	8,332	50,139	58,433
	R	711,881	375,171	336,710	50,060	55,251	496	1,789	42,740	25,007
	U	1,048,857	66,407	982,450	3,784	52,371	63	6,543	7,399	33,426

VII.1

areas by major groups of industry (ISIC), India and major States, 1961

23-Textile-Cotton		24-Textile-Jute		25-Textile-Wool		26-Textile-Silk		27-Textile-Miscellaneous		
HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	
11	12	13	14	15	16	17	18	19	20	
2,835,843	1,322,424	155,066	262,232	138,425	31,608	119,245	71,771	925,404	689,266	
2,079,578	226,295	142,207	46,600	123,664	6,936	48,237	13,291	740,490	229,583	
756,265	1,096,129	12,859	215,632	14,761	24,672	71,008	58,480	184,914	459,683	
507,552	28,857	50,000	11,294	36,576	305	5,029	3,749	112,245	39,918	1
401,213	9,718	48,455	7,818	35,359	195	1,446	94	90,784	12,491	
106,339	19,139	1,545	3,476	1,217	110	3,583	3,655	21,461	27,427	
241,857	7,475	187	277	423	51	1,742	234	3,843	15,187	2
230,036	3,578	175	18	412	33	1,198	159	2,037	8,315	
11,821	3,897	12	259	11	18	544	75	1,806	6,872	
202,763	11,694	9,552	8,579	4,845	275	2,454	520	37,771	32,023	3
184,856	8,359	9,323	4,494	4,463	228	1,891	388	30,895	13,504	
17,907	3,335	229	4,085	382	47	563	132	6,876	18,519	
57,261	246,094	96	239	2,419	1,666	1,586	5,370	53,531	37,798	4
34,287	29,881	69	12	2,219	105	332	1,946	35,946	6,621	
22,974	216,213	27	227	200	1,561	1,254	3,424	17,585	31,177	
6,641	1,091	57	73	26,605	3,489	57	2,349	7,707	7,637	5
6,000	457	15	9	22,067	1,095	26	445	3,894	1,373	
641	634	42	64	4,538	2,394	31	1,904	3,813	6,264	
60,925	38,303	262	439	6	27	82	1,553	214,951	87,766	6
49,752	23,531	198	218	6	17	17	624	198,090	63,696	
11,173	14,772	64	221	N	10	65	929	16,861	24,070	
81,711	66,304	1,910	896	3,650	278	239	4,477	53,353	24,729	7
56,414	3,145	1,132	87	2,797	101	212	216	39,890	2,519	
25,297	63,159	778	809	853	177	27	4,261	13,463	22,210	
565,769	175,187	3,806	1,911	1,047	576	46,089	6,407	37,186	73,669	8
328,700	52,854	3,620	547	901	102	19,526	3,291	29,399	23,454	
237,069	122,333	186	1,364	146	474	26,563	3,116	7,787	50,215	
140,018	419,226	22,754	2,048	11,066	5,886	910	22,305	76,414	79,912	9
38,834	21,043	21,284	1,082	10,015	695	405	934	53,418	13,392	
101,184	398,183	1,470	966	1,051	5,191	505	21,371	22,996	66,520	
148,216	54,048	9,756	876	26,323	896	13,038	12,531	44,725	38,869	10
74,775	8,134	7,733	469	23,312	420	3,410	952	30,464	9,904	
73,441	45,914	2,023	407	3,011	476	9,628	11,579	14,261	28,965	
120,990	8,476	11,757	1,229	256	221	564	454	12,330	4,071	11
116,009	3,265	11,393	848	208	4	203	55	10,441	1,179	
4,981	5,211	364	381	48	217	361	399	1,889	2,892	
87,017	38,607	11,317	859	3,236	6,168	477	1,623	55,819	35,210	12
74,022	11,239	9,420	611	2,846	2,219	445	155	43,422	9,510	
12,995	27,368	1,897	248	390	3,949	32	1,468	12,397	25,700	
76,610	22,148	1,376	261	4,034	2,158	298	237	18,994	29,982	13
55,709	5,498	1,246	76	3,045	337	274	82	13,290	11,489	
20,901	16,650	130	185	989	1,821	24	155	5,704	18,493	
324,662	90,429	29,371	7,976	13,807	6,956	36,324	6,887	151,625	82,260	14
245,818	20,088	25,766	2,946	12,226	1,198	9,247	3,155	129,170	25,746	
78,844	70,341	3,605	5,030	1,581	5,758	27,077	3,732	22,455	56,514	
123,493	80,279	2,632	225,031	1,068	2,342	10,269	2,823	26,410	75,699	15
105,162	16,817	2,247	27,252	863	114	9,545	781	15,294	21,943	
18,331	63,462	385	197,779	205	2,228	724	2,042	11,116	53,756	

TABLE

Workers in household and non-household sectors rural and urban

State		28-Manufacture of wood and wood products		29-Paper and paper products		30-Printing and publishing		31-Leather and leather products		32-Rubber, petroleum and coal products	
		HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI
1		21	22	23	24	25	26	27	28	29	30
INDIA	T	1,590,478	585,050	10,581	69,753	6,784	211,986	586,248	223,192	2,145	70,099
	R	1,396,773	252,112	3,737	18,388	1,316	20,672	490,457	57,177	920	8,756
	U	193,705	332,938	6,844	51,365	5,468	191,314	95,791	166,015	1,225	61,343
1 Andhra Pradesh	T	235,688	31,707	1,184	6,417	848	10,089	103,170	8,064	56	1,623
	R	202,289	11,012	211	863	14	563	96,253	2,588	20	141
	U	33,399	20,695	973	5,554	834	9,526	6,917	5,476	36	1,482
2 Assam	T	14,639	19,977	158	266	68	2,158	320	2,925	14	6,405
	R	13,427	11,706	146	124	8	577	215	1,324	..	299
	U	1,212	8,271	12	142	60	1,581	105	1,601	14	6,106
3 Bihar	T	151,231	22,280	2,107	3,626	621	6,699	22,604	10,375	240	2,419
	R	141,610	12,063	1,599	1,826	197	763	19,507	4,146	119	656
	U	9,621	10,217	508	1,800	424	5,936	3,097	6,229	121	1,763
4 Gujarat	T	52,746	30,495	390	2,224	171	8,507	32,453	10,995	50	1,772
	R	46,231	5,582	39	1,686	10	454	28,061	1,530	20	249
	U	6,515	24,913	351	538	161	8,053	4,392	9,465	30	1,523
5 Jammu and Kashmir	T	5,437	5,066	242	626	38	424	2,894	1,581	..	56
	R	4,247	1,296	32	12	14	21	2,408	514	..	4
	U	1,190	3,770	210	614	24	403	486	1,067	..	52
6 Kerala	T	77,963	96,649	96	1,569	234	10,167	1,110	2,601	87	4,084
	R	74,201	78,037	50	1,449	142	4,267	916	1,235	63	2,612
	U	3,762	18,612	46	120	92	5,900	194	1,366	24	1,472
7 Madhya Pradesh	T	148,248	22,651	565	2,904	164	5,363	79,765	7,793	66	584
	R	130,673	5,971	146	195	25	146	68,716	1,155	31	6
	U	17,575	16,680	419	2,709	139	5,217	11,049	6,638	35	578
8 Madras	T	144,740	68,424	320	1,110	235	29,282	34,833	30,819	50	3,398
	R	116,783	31,925	35	172	36	2,032	31,861	14,545	16	448
	U	27,957	36,499	285	938	199	27,250	2,972	16,274	34	2,950
9 Maharashtra	T	152,513	65,199	940	8,393	434	44,647	57,278	20,840	223	20,522
	R	130,341	12,044	145	1,122	26	2,099	45,142	1,802	119	955
	U	22,172	53,155	795	7,271	408	42,548	12,136	19,038	104	19,567
10 Mysore	T	96,448	38,395	145	6,395	342	8,234	24,767	6,734	104	842
	R	77,493	16,270	15	1,774	38	399	19,793	1,877	35	53
	U	18,955	22,125	130	4,621	304	7,835	4,974	4,857	69	789
11 Orissa	T	101,812	6,630	689	6,178	508	1,992	3,792	1,162	265	309
	R	97,420	2,908	417	989	69	574	2,749	92	15	49
	U	4,392	3,722	272	5,189	439	1,418	1,043	1,070	250	260
12 Punjab	T	63,792	24,923	401	5,052	154	7,508	68,416	16,846	162	2,414
	R	55,115	10,085	41	1,143	16	730	58,588	6,168	39	805
	U	8,677	14,838	360	3,909	138	6,778	9,828	10,678	123	1,609
13 Rajasthan	T	48,044	12,552	372	381	278	3,808	72,285	10,828	126	434
	R	40,657	3,377	132	52	211	63	59,228	5,004	84	127
	U	7,387	9,175	240	329	67	3,745	13,057	5,824	42	307
14 Uttar Pradesh	T	207,254	48,987	1,137	5,901	1,434	22,414	65,205	47,831	287	1,189
	R	183,997	14,951	282	2,907	424	2,228	46,364	7,606	220	368
	U	23,257	34,036	855	2,994	1,010	20,186	18,841	40,225	67	821
15 West Bengal	T	77,905	68,358	1,481	17,552	806	35,479	9,217	34,906	320	22,629
	R	72,665	25,746	444	3,980	74	5,285	5,360	6,420	139	1,859
	U	5,240	42,612	1,037	13,572	732	30,194	3,857	28,486	181	20,770

VII.1

areas by major groups of industry (ISIC), India and major States, 1961—concld.

33-Chemicals and chemical products		34-35-Non-metallic mineral products		36-Basic metals and their products		37-Machinery and electrical equipment		38-Transport equipment		39-Miscellaneous manufacturing industries		
HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	
31	32	33	34	35	36	37	38	39	40	41	42	
47,135	275,095	849,220	654,302	469,733	733,504	5,380	217,706	48,684	529,080	441,835	508,892	
23,492	72,904	751,953	367,791	393,564	146,190	2,898	32,214	34,549	87,234	322,870	112,836	
23,643	202,191	97,267	286,511	76,169	587,314	2,482	185,492	14,135	441,846	118,965	396,056	
6,196	7,590	99,836	37,203	34,603	23,482	62	3,642	10,364	30,224	63,605	31,583	1
4,799	3,112	90,698	23,009	28,008	4,200	13	579	8,085	4,144	48,964	5,447	
1,397	4,478	9,138	14,194	6,595	19,282	49	3,063	2,279	26,080	14,641	26,136	
68	1,663	4,229	7,637	1,848	5,641	2	204	294	7,188	2,947	9,386	2
20	160	3,739	6,635	1,392	2,976	1	7	95	2,752	2,024	6,200	
48	1,503	490	1,002	456	2,665	1	197	199	4,436	923	3,186	
2,972	12,313	114,294	76,134	45,240	65,082	204	7,438	3,350	32,686	42,291	23,419	3
2,154	2,655	106,124	55,233	41,831	17,746	98	2,368	2,354	6,847	35,626	9,228	
818	9,658	8,170	20,901	3,409	47,336	106	5,070	996	25,839	6,665	14,191	
906	31,439	50,692	33,388	16,997	28,907	113	5,163	1,046	12,140	16,320	26,509	4
482	12,848	44,263	14,519	13,276	3,416	44	833	826	1,112	9,817	3,514	
424	18,591	6,429	18,869	3,721	25,491	69	4,330	220	11,028	6,503	22,995	
32	309	3,291	1,119	2,501	2,449	9	144	62	824	1,126	2,190	5
3	17	2,859	711	1,823	628	3	10	24	49	766	224	
29	292	432	408	678	1,821	6	134	38	775	360	1,966	
3,539	12,555	20,089	36,037	22,180	18,905	54	1,758	320	12,332	13,980	19,562	6
3,033	8,278	18,496	26,986	20,199	12,952	28	1,017	280	6,247	12,023	13,107	
506	4,277	1,593	9,051	1,981	5,953	26	741	40	6,085	1,957	6,455	
4,277	5,511	83,157	33,464	60,146	56,206	1,350	15,885	3,587	14,564	35,955	17,520	7
2,570	2,414	72,327	13,490	53,291	2,520	1,255	864	2,672	1,113	23,812	3,695	
1,707	3,097	10,830	19,974	6,855	53,686	95	15,021	915	13,451	12,143	13,825	
12,402	43,685	65,135	52,786	26,165	51,985	259	16,004	3,951	82,805	36,089	58,827	8
3,382	17,932	56,255	28,553	20,340	12,656	196	4,043	3,211	14,740	23,085	11,644	
9,020	25,753	8,880	24,233	5,825	39,329	63	11,961	740	68,065	13,004	47,183	
2,569	76,782	57,442	55,033	39,636	81,843	621	61,675	6,300	90,627	30,130	77,162	9
759	11,775	48,223	16,594	30,761	7,517	176	5,992	5,071	4,353	20,673	6,488	
1,810	65,007	9,219	38,439	8,875	74,326	445	55,683	1,229	86,274	9,457	70,674	
3,585	9,073	46,573	54,682	24,938	24,565	154	19,890	2,014	39,266	30,789	21,547	10
800	1,034	38,971	25,782	19,229	5,463	59	851	1,175	2,215	20,549	3,915	
2,785	8,039	7,602	28,900	5,709	19,102	95	19,039	839	37,051	10,240	17,632	
1,013	1,305	39,146	7,603	34,260	21,433	502	975	1,814	2,852	25,171	4,706	11
641	402	36,730	3,576	32,969	2,423	187	196	1,147	623	22,317	2,187	
372	903	2,416	4,027	1,291	19,010	315	779	667	2,229	2,854	2,519	
1,066	8,180	36,615	31,785	25,852	48,332	929	16,481	3,585	23,918	15,931	26,341	12
391	1,694	32,842	23,585	20,702	21,250	430	3,491	1,873	7,268	12,930	5,536	
675	6,486	3,773	8,200	5,150	27,082	499	12,990	1,712	16,650	3,001	20,805	
1,025	2,030	51,048	21,040	16,886	9,749	68	3,066	871	6,258	22,994	18,144	13
310	396	43,471	8,419	12,702	2,154	6	179	499	390	13,903	3,042	
715	1,634	7,577	12,621	4,184	7,595	62	2,887	372	5,868	9,091	15,102	
5,955	11,622	140,239	91,678	88,128	71,521	550	8,210	9,225	65,969	76,070	50,943	14
3,614	4,101	124,867	54,616	72,281	14,278	201	1,838	6,028	12,385	54,765	13,008	
2,341	7,521	15,372	37,062	15,847	57,243	349	6,372	3,197	53,584	21,305	37,935	
996	43,392	31,765	93,641	24,558	197,462	300	49,846	1,276	90,511	24,540	104,823	15
445	5,521	27,639	51,216	21,242	34,016	188	9,632	946	20,544	19,622	23,537	
551	37,871	4,126	42,425	3,316	163,446	112	40,214	330	69,967	4,918	81,286	

TABLE

Distribution of 10,000 *workers in household and non-household sectors in rural*

State		Total workers (Div. 2 & 3)			20-Foodstuffs		21-Beverages		22-Tobacco products	
		Total	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI
		2	3	4	5	6	7	8	9	10
INDIA . .	T	10,000	5,546	4,454	618	532	18	85	313	231
	R	5,796	4,436	1,360	536	263	14	60	224	88
	U	4,204	1,110	3,094	82	269	4	25	89	143
1 Andhra Pradesh	T	10,000	7,501	2,499	528	369	52	315	264	366
	R	7,170	6,140	1,030	382	171	39	296	167	111
	U	2,830	1,361	1,469	146	198	13	19	97	255
2 Assam . .	T	10,000	7,298	2,702	168	306	13	103	8	34
	R	8,286	6,821	1,465	155	183	12	99	7	14
	U	1,714	477	1,237	13	123	1	4	1	20
3 Bihar . .	T	10,000	6,791	3,209	1,440	543	76	62	435	227
	R	7,606	6,104	1,502	1,291	269	67	44	356	131
	U	2,394	687	1,707	149	274	9	18	79	96
4 Gujarat . .	T	10,000	3,674	6,326	161	385	1	26	128	220
	R	3,922	2,742	1,180	119	115	N	3	75	67
	U	6,078	932	5,146	42	270	1	23	53	153
5 Jammu and Kashmir	T	10,000	6,481	3,519	503	417	10	6	3	..
	R	5,936	5,049	887	401	164	1	N	N	..
	U	4,064	1,432	2,632	102	253	9	6	3	..
6 Kerala . .	T	10,000	4,769	5,231	534	1,055	11	240	115	535
	R	8,206	4,314	3,892	466	878	10	225	107	376
	U	1,794	455	1,339	68	177	1	15	8	159
7 Madhya Pradesh	T	10,000	7,015	2,985	699	323	18	28	1,351	161
	R	6,054	5,605	449	598	73	9	7	957	35
	U	3,946	1,410	2,536	101	250	9	21	394	126
8 Madras . .	T	10,000	5,735	4,265	537	459	6	65	274	238
	R	5,218	3,847	1,371	485	194	3	17	155	60
	U	4,782	1,888	2,894	52	265	3	48	119	178
9 Maharashtra .	T	10,000	3,629	6,371	218	563	12	32	472	246
	R	3,342	2,499	843	164	250	11	9	344	57
	U	6,658	1,130	5,528	54	313	1	23	128	189
10 Mysore . .	T	10,000	5,560	4,440	250	448	15	73	328	374
	R	4,890	3,743	1,147	166	151	11	30	220	129
	U	5,110	1,817	3,293	84	297	4	43	108	245
11 Orissa . .	T	10,000	8,414	1,586	1,645	234	14	23	226	48
	R	8,407	7,892	515	1,575	134	13	14	179	10
	U	1,593	522	1,071	70	100	1	9	47	38
12 Punjab . .	T	10,000	5,336	4,664	393	752	4	32	2	3
	R	6,066	4,437	1,629	310	229	1	9	1	1
	U	3,934	899	3,035	83	523	3	23	1	2
13 Rajasthan .	T	10,000	6,627	3,373	394	435	5	17	44	115
	R	6,057	5,110	947	296	130	1	2	13	17
	U	3,943	1,517	2,426	98	305	4	15	31	98
14 Uttar Pradesh .	T	10,000	6,455	3,545	1,219	686	8	23	131	88
	R	6,508	5,257	1,251	1,105	403	7	12	93	33
	U	3,492	1,198	2,294	114	283	1	11	38	55
15 West Bengal .	T	10,000	2,508	7,492	306	611	3	47	285	332
	R	4,043	2,131	1,912	284	314	3	10	243	142
	U	5,957	377	5,580	22	297	N	37	42	190

VII.2

and urban areas by major groups of industry (ISIC), India and major States, 1961

23-Textile-Cotton		24-Textile-Jute		25-Textile-Wool		26-Textile-Silk		27-Textile-Miscellaneous		
HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	
11	12	13	14	15	16	17	18	19	20	
1,584	739	87	146	77	18	67	40	517	385	
1,161	127	80	26	69	4	27	7	414	128	
423	612	7	120	8	14	40	33	103	257	
2,667	152	263	59	192	2	26	20	590	210	1
2,108	51	255	41	186	1	7	1	477	66	
559	101	8	18	6	1	19	19	113	144	
6,306	195	5	7	11	1	46	6	100	396	2
5,998	93	5	N	11	1	31	4	53	217	
308	102	N	7	N	N	15	2	47	179	
1,528	88	72	65	36	2	18	4	285	241	3
1,393	63	70	34	33	2	14	3	233	102	
135	25	2	31	3	N	4	1	52	139	
676	2,903	1	3	28	20	19	63	632	446	4
405	352	1	N	26	2	4	23	424	78	
271	2,551	N	3	2	18	15	40	208	368	
699	115	6	8	2,799	367	6	247	811	803	5
631	48	1	1	2,321	115	3	47	410	144	
68	67	5	7	478	252	3	200	401	659	
602	378	3	4	N	N	1	15	2,124	867	6
492	232	2	2	N	N	N	6	1,957	629	
110	146	1	2	N	N	1	9	167	238	
724	588	17	8	32	2	2	40	473	219	7
500	28	10	1	25	1	2	2	354	22	
224	560	7	7	7	1	N	38	119	197	
2,845	881	19	10	5	3	232	32	187	370	8
1,653	266	18	3	5	1	98	16	148	118	
1,192	615	1	7	N	2	134	16	39	252	
684	2,048	111	10	54	29	4	109	373	390	9
190	103	104	5	49	4	2	5	261	65	
494	1,945	7	5	5	25	2	104	112	325	
1,560	569	103	9	277	9	137	132	471	409	10
787	86	82	5	245	4	36	10	321	104	
773	483	21	4	32	5	101	122	150	305	
2,226	156	216	23	5	4	10	8	227	75	11
2,134	60	209	16	4	N	4	1	192	22	
92	96	7	7	1	4	6	7	35	53	
1,147	509	149	11	43	81	6	21	735	464	12
976	148	124	8	38	29	6	2	572	125	
171	361	25	3	5	52	N	19	163	339	
1,502	434	27	5	79	42	6	5	373	588	13
1,092	108	24	1	60	7	5	2	261	225	
410	326	3	4	19	35	1	3	112	363	
1,437	400	130	35	61	31	161	31	671	364	14
1,088	89	114	13	54	5	41	14	572	114	
349	311	16	22	7	26	120	17	99	250	
701	456	15	1,278	6	13	58	16	150	430	15
597	95	13	155	5	1	54	4	87	125	
104	361	2	1,123	1	12	4	12	63	305	

TABLE

Distribution of 10,000 *workers in household and non-household sectors in rural*

State		28-Manufacture of wood and wood products		29-Paper and paper products		30-Printing and publishing		31-Leather and leather products		32-Rubber, petroleum and coal products	
		HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI
1		21	22	23	24	25	26	27	28	29	30
INDIA .	T	888	327	6	39	4	118	327	125	1	39
	R	780	141	2	10	1	11	274	32	N	5
	U	108	186	4	29	3	107	53	93	1	34
1 Andhra	T	1,238	167	6	34	5	53	542	42	N	8
Pradesh	R	1,063	58	1	5	N	3	506	13	N	N
	U	175	109	5	29	5	50	36	29	N	8
2 Assam .	T	382	521	4	7	2	56	8	76	N	167
	R	350	305	4	3	N	15	5	34	0	8
	U	32	216	N	4	2	41	3	42	N	159
3 Bihar .	T	1,139	168	16	27	5	51	170	78	2	18
	R	1,067	91	12	14	2	6	147	31	1	5
	U	72	77	4	13	3	45	23	47	1	13
4 Gujarat .	T	622	360	5	26	2	100	383	130	1	21
	R	545	66	1	20	N	5	331	18	1	3
	U	77	294	4	6	2	95	52	112	N	18
5 Jammu and	T	572	533	26	66	4	45	304	166	..	6
Kashmir	R	447	137	4	1	1	2	253	54	..	1
	U	125	396	22	65	3	43	51	112	..	5
6 Kerala	T	770	955	1	16	2	101	11	26	1	40
	R	733	771	1	15	1	42	9	12	1	26
	U	37	184	N	1	1	59	2	14	N	14
7 Madhya	T	1,314	201	5	26	1	47	707	69	1	5
Pradesh	R	1,158	53	1	2	N	1	609	10	N	N
	U	156	148	4	24	1	46	98	59	1	5
8 Madras .	T	728	344	2	6	1	147	175	155	N	17
	R	587	161	N	1	N	10	160	73	N	2
	U	141	183	2	5	1	137	15	82	N	15
9 Maharashtra	T	745	318	5	41	2	218	280	102	1	100
	R	637	59	1	5	N	10	220	9	N	5
	U	108	259	4	36	2	208	60	93	1	95
10 Mysore .	T	1,015	404	1	67	4	87	261	71	1	9
	R	816	171	N	19	1	4	208	20	N	1
	U	199	233	1	48	3	83	53	51	1	8
11 Orissa .	T	1,873	122	13	114	9	37	70	21	5	6
	R	1,792	54	8	18	1	11	51	2	N	1
	U	81	68	5	96	8	26	19	19	5	5
12 Punjab	T	841	328	5	67	2	99	901	222	2	32
	R	726	133	N	15	N	10	772	81	N	11
	U	115	195	5	52	2	89	129	141	2	21
13 Rajasthan	T	942	246	7	7	6	75	1,418	212	3	9
	R	797	66	3	1	4	1	1,162	98	2	3
	U	145	180	4	6	2	74	256	114	1	6
14 Uttar	T	918	217	5	26	6	99	289	212	1	5
Pradesh	R	815	66	1	13	2	10	205	34	1	1
	U	103	151	4	13	4	89	84	178	N	4
15 West Bengal	T	443	388	8	100	5	202	52	198	2	129
	R	413	146	2	23	1	30	30	36	1	11
	U	30	242	6	77	4	172	22	162	1	118

'N' indicates that the figures are negligible.

VII.2

and urban areas by major groups of industry (ISIC), India and major States, 1961—concld.

33-Chemicals and chemical products		34-35-Non-metallic mineral products		36-Basic metals and their products		37-Machinery and electrical equipment		38-Transport equipment		39-Miscellaneous manufacturing industries		
HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	HHI	NHHI	
31	32	33	34	35	36	37	38	39	40	41	42	
26	154	474	365	262	410	3	122	27	295	247	284	
13	41	420	205	220	82	2	18	19	49	180	63	
13	113	54	160	42	328	1	104	8	246	67	221	
33	40	525	195	182	123	N	19	54	159	334	166	1
26	16	477	121	147	22	N	3	42	22	257	29	
7	24	48	74	35	101	N	16	12	137	77	137	
2	43	110	199	48	147	N	5	8	188	77	245	2
1	4	97	173	36	78	N	N	3	72	53	162	
1	39	13	26	12	69	N	5	5	116	24	83	
22	93	861	574	341	490	1	56	25	246	319	176	3
16	20	800	416	315	133	N	18	18	51	269	69	
6	73	61	158	26	357	1	38	7	195	50	107	
11	371	598	394	200	341	1	61	12	143	193	313	4
6	152	522	171	156	40	N	10	10	13	116	42	
5	219	76	223	44	301	1	51	2	130	77	271	
3	32	346	118	263	258	1	15	7	87	118	230	5
N	2	301	75	192	66	N	1	3	5	80	24	
3	30	45	43	71	192	1	14	4	82	38	206	
35	124	198	356	219	187	1	17	3	122	138	193	6
30	82	183	267	200	128	N	10	3	62	119	129	
5	42	15	89	19	59	1	7	N	60	19	64	
38	49	737	296	533	498	12	141	32	129	319	155	7
23	22	641	119	472	22	11	8	24	10	211	33	
15	27	96	177	61	476	1	133	8	119	108	122	
62	220	328	265	132	261	1	80	20	416	181	296	8
17	90	283	143	102	63	1	20	16	74	116	59	
45	130	45	122	30	198	N	60	4	342	65	237	
12	375	281	269	194	400	3	301	31	443	147	377	9
3	57	236	81	150	37	1	29	25	21	101	32	
9	318	45	188	44	363	2	272	6	422	46	345	
38	96	490	575	262	259	2	209	21	413	324	227	10
9	11	410	271	202	58	1	9	12	23	216	41	
29	85	80	304	60	201	1	200	9	390	108	186	
19	24	720	140	631	394	9	18	33	52	463	87	11
12	7	676	66	607	44	3	4	21	11	411	40	
7	17	44	74	24	350	6	14	12	41	52	47	
14	108	482	419	341	637	12	217	47	315	210	347	12
5	22	433	311	273	280	5	46	25	96	170	73	
9	86	49	108	68	357	7	171	22	219	40	274	
20	40	1,001	413	331	191	1	60	17	123	451	356	13
6	8	852	165	249	42	N	3	10	8	273	60	
14	32	149	248	82	149	1	57	7	115	178	296	
26	51	621	406	390	317	3	36	41	292	337	226	14
16	18	553	242	320	63	1	8	27	55	242	58	
10	33	68	164	70	254	2	28	14	237	95	168	
6	246	180	532	140	1,122	2	283	7	514	139	595	15
3	31	157	291	121	193	1	55	5	117	111	133	
3	215	23	241	19	929	1	228	2	397	28	462	

CHAPTER VIII

REGISTERED FACTORIES IN 1961

A. Distribution

THE STATISTICS FOR THIS chapter were compiled from the returns of the Chief Inspector of Factories of the respective States and Union Territories for 1961. They were classified into three groups: (a) factories employing up to and including 19 persons; (b) factories employing 20 to 99 persons (both inclusive) and (c) factories employing 100 persons or more. The first group (employing less than 20 persons) will be referred to hereafter as small factories, the second as medium, and the third as large. While the first will generally provide a rough index of internal savings and their investment in industry, it will not give us an unequivocal answer straightaway as to how much of this industry is in the modern and how much in the traditional sector. Rather, the answer to this particular question in respect of this first group will be found in earlier parts of this Report where an analysis of establishments by type of manufacture, by type of fuel used and by class range of workers employed has been attempted. The second group of medium employment industries (20—99) may be taken to represent the transition from traditional forms of small organisation to the modern types of large organisation, management and investment and may still be regarded as the result of investment of local savings. The third group of industries employing 100 or more represents, so far as location is concerned, the result of much deliberation on the availability and ultimate cost of raw material, cost of production reflected in labour costs and power, transport, managerial expenses, assembly and maintenance costs and markets, and considerations of national, regional or local importance and future expansion and does not always stand for local savings locally invested but a deliberate locational choice. It is the third group really in which the choice of location enters in a big way, except for those units which have slowly expanded by stages, and which really determines a district's or a region's or a state's essential industrial strength, because it represents for the majority of cases much more than investment of purely local savings and purely local ordering of raw materials, cost of production and markets.

Statement VIII.1 gives the distribution of factories classified by range of workers employed in India and each State in 1961. Statement VIII.2 gives the distribution per 100 factories and workers in all India in each class range by each State. Statement VIII.3 gives the distribution per 100 of all factories and workers in each State in each of three class ranges.

Statement VIII.2 may be considered first.

Maharashtra stands out as pre-eminent in the proportion of total factory workers as well in that of total factories. It yields ground only to Bihar in the matter of proportion of factories employing less than 20 persons but is pre-eminent and far ahead of other States in all other columns, except for a slightly lower figure than Bengal's (0·37 per cent) in the proportion of workers in factories employing 100 persons or more.

West Bengal comes second in respect of percentage of workers in registered factories, although in respect of percentage of registered factories it (8·62) is far behind Bihar (12·27), Madras (11·18) and Andhra Pradesh (9·84), not to speak of Maharashtra (16·48). This deficit is largely accounted for by West Bengal's poor performance in small registered factories employing less than 20 persons. In this particular group of small factories,

West Bengal takes the 7th place in respect of both percentage of factories and percentage of workers in them. In the domain of medium factories West Bengal occupies the second place after Maharashtra as also in large factories where, however, in matter of employment it takes the first place, with a slight lead over Maharashtra.

Although Madras takes the third place in respect of percentage of factories (after Maharashtra and Bihar), it takes the fourth place in the matter of percentage of factory employment (after Maharashtra, West Bengal and Gujarat). Madras is very strong in small factories, holding as it does the 3rd place in percentage of small factories and the second place in percentage of employment in this field, indicating that the internal savings of the state are going in a big way toward the setting up of small high profit yielding industrial concerns. Madras is fairly prominent in medium factories, too, holding the fifth and fourth places respectively in percentage of factories and employment (after Maharashtra, West Bengal, Andhra Pradesh and Mysore in the former and after Maharashtra, West Bengal and Andhra Pradesh in the latter). In large factories Madras takes the 6th place both in percentage of factories and employment. In the former it comes after Maharashtra, West Bengal, Kerala, Gujarat and Mysore and in the latter after West Bengal, Maharashtra, Gujarat, Uttar Pradesh and Kerala. Of all the States Madras seems to enjoy the third best, smoothest and uniformly high linkage between small, medium and large industries and employment in them, next to Maharashtra and Gujarat. The linkage between small, medium and large factories in Madras seems to be even better than in Maharashtra, Gujarat or any other State, except perhaps Punjab which shows associations very similar to those obtaining in Madras, inasmuch as the statistics suggest that in Madras internal savings seem to be making the classical and self-generating progress from savings in agriculture to small factories, small to medium and medium to large, the large completing the circuit again back to where it all began. By contrast Gujarat and Maharashtra seem to suggest that the large factories have an entity and geneology all their own, although the small and medium establishments look quite closely linked.

Although after Madras, the succession seems a little blurred, Gujarat appears to claim the 4th place by virtue more of her percentage of employment (3rd) than that of factories (6th). While it occupies the 6th and 5th places respectively in point of percentage of factories and employment both in small and medium factories, it occupies the 4th place in its percentage of large factories (after Maharashtra, West Bengal and Kerala) and the 3rd place in its percentage of employment (after West Bengal and Maharashtra).

The next most consistent picture seems to be provided by Andhra Pradesh, which, to my mind, takes the 5th place. This State takes the 4th place in number of factories and the 7th in employment and her most hopeful feature lies the ploughing in of local savings (in agriculture and home remittances) evident in the number and strength of her small and medium factories and employment in them. It is remarkable that Andhra Pradesh quietly takes the 4th place in small factories and the 3rd place in employment in them as well as in the number of factories and employment in medium concerns. She is also making good progress in large factories, in which she takes the 10th place in number and the 9th in employment. It is obvious that she is on the classic and self-generating path of small to medium and from medium to large, to which her agriculture provides the underpinning.

On the overall view, I would rate Uttar Pradesh sixth after Andhra Pradesh despite the fact that Uttar Pradesh does not enjoy any outstanding distinction in respect of any feature except that she is 5th in percentage of total factory employment and 4th in percentage of employment in large factories. But her other places are consistently high. She takes the 8th place

in percentage of total factories and in both percentage of number and employment in small factories. She takes the 8th and 7th places respectively in percentage of number and employment in medium factories and the 7th place in percentage of large factories.

I would rate Kerala 7th in succession not only because of the 6th place she enjoys in percentage of employment but also because of the consistency of her place in other features. She takes the 9th place in percentage of factories, and also in both percentages of factories and employment in small concerns. She takes the 9th place again in number of medium factories and the 10th place in employment in them. She scores very high in the number of large factories, coming third after Maharashtra and West Bengal, and comes 5th in employment in large factories. Apart from her other strengths, Kerala's quiet and growing might in the field of registered factories and employment in them over the entire span of small, medium and large concerns, provides the concealed backbone to her seemingly vulnerable and over-populated economy.

Bihar ranks as high as Kerala in the overall picture and takes the eighth place, although her place is second in total factories and 9th in employment. She takes the first place in the number of small factories but the 6th place in employment in them. She takes the 11th place both in respect of number and employment in medium factories and the 9th and 8th places respectively in number and employment in large factories. But her place in the all-India hierarchy would go up much higher if her mines were taken into account. Bihar shows great promise in the small and medium sectors, while already enjoying a high performance in large factories. This appears to provide part of the clue to the strong shift noticed during 1951-61 in Bihar from agriculture to non-agriculture.

The ninth place is taken by Punjab whose promising linkage between small, medium and large factories has already been commented upon. It is significant that she already enjoys the 7th place in number of factories and the 5th and 4th places respectively in number and employment in small factories.

Mysore takes the 10th place, her strength lying chiefly in medium and large factories. In medium factories she occupies the 4th and 6th places respectively in number of factories and employment. In large factories the respective places are 5th and 7th. But her small industries have yet to make progress and the linkage between local savings, mainly in agriculture, and small factories is still far from pronounced.

Madhya Pradesh closely follows Mysore in the overall picture and occupies the 11th place. She maintains a very consistent position around this all India rank in all categories, but shows even greater performance in medium factories where her rank in numbers is 7th and in employment 8th. This is over and above Madhya Pradesh's considerable achievement in mining and quarrying and it is quite obvious that Madhya Pradesh holds a central position, not only physically on the map of India, but on the industrial map, a circumstance liable to be overlooked on account of Madhya Pradesh's size and large patches of backwardness.

Assam occupies the 12th place in respect of all characteristics except (a) the number of large factories, in which its position is 8th, and (b) employment in small factories and employment in medium factories in which its position is 13th and 12th respectively.

Delhi occupies the 13th (extremely creditable and significant from her very small area), Rajasthan the 14th, Orissa the 15th, Jammu and Kashmir the 16th (and that with very striking uniformity in all characteristics), Himachal Pradesh the 17th, Tripura the 18th and Andaman and Nicobar Islands the 19th places. The internal ranks of the various characteristics of each of these states closely conform to their overall ranks.

A rearrangement of Statement VIII.3 brings into sharper relief the elements of balance or the lack of it among the three categories—small, medium and large—in both number and employment. Thus Statement VIII.4 shows the distribution of states by low, medium and high values in small, medium and large factories :

STATEMENT VIII.1

Factories classified by range of workers employed, India and States, 1961

State	Total		1—19		20—99		100+	
	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers
INDIA	**49,960**	**3,915,131**	**24,759**	**242,490**	**19,315**	**785,373**	**5,886**	**2,887,268**
Andhra Pradesh ..	4,918	223,371	2,857	27,118	1,813	70,051	248	126,202
Assam	1,241	80,047	512	5,087	459	22,602	270	52,358
Bihar	6,133	209,290	4,936	20,474	941	37,736	256	151,080
Gujarat	3,840	360,528	1,861	22,744	1,478	60,693	501	277,091
Jammu and Kashmir ..	139	10,964	34	458	76	2,995	29	7,511
Kerala	2,412	252,961	684	7,328	1,046	39,008	682	206,625
Madhya Pradesh	1,928	155,564	529	6,280	1,177	47,743	222	101,541
Madras	5,587	300,387	3,435	34,288	1,705	68,294	447	197,805
Maharashtra ..	8,233	787,379	3,744	46,222	3,390	146,736	1,099	594,421
Mysore	2,406	219,298	134	1,634	1,774	57,785	498	159,879
Orissa	488	47,739	215	2,791	236	9,387	37	35,561
Punjab	3,468	127,018	2,330	26,390	970	39,273	168	61,355
Rajasthan ..	914	57,507	575	5,306	279	13,500	60	38,701
Uttar Pradesh ..	2,751	298,174	1,153	14,170	1,163	47,925	435	236,079
West Bengal ..	4,307	719,793	1,236	15,844	2,221	98,697	850	605,252
Andaman and Nicobar Islands	11	1,882	1	13	7	467	3	1,402
Delhi	1,060	59,150	464	5,957	519	19,878	77	33,315
Himachal Pradesh	28	2,063	3	49	21	924	4	1,090
Manipur	34	119	34	119	..	..	..	..
Tripura	62	1,897	22	218	40	1,679	..	..

STATEMENT VIII.2

Distribution per 100 *factories and workers in India in each class range by States*, 1961

State	Total		1—19		20—99		100+	
	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers
INDIA	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**
Andhra Pradesh	9·84	5·71	11·54	11·18	9·39	8·92	4·21	4·37
Assam	2·48	2·04	2·07	2·10	2·38	2·88	4·59	1·81
Bihar	12·27	5·35	19·94	8·44	4·87	4·80	4·35	5·23
Gujarat	7·69	9·21	7·52	9·38	7·65	7·73	8·51	9·60
Jammu and Kashmir ..	0·28	0·28	0·14	0·19	0·39	0·38	0·49	0·26
Kerala	4·83	6·46	2·76	3·02	5·42	4·97	11·59	7·16
Madhya Pradesh	3·86	3·97	2·14	2·59	6·09	6·08	3·77	3·52
Madras	11·18	7·67	13·87	14·14	8·83	8·70	7·60	6·85
Maharashtra ..	16·48	20·11	15·12	19·06	17·55	18·68	18·67	20·59
Mysore	4·82	5·60	0·54	0·67	9·18	7·36	8·46	5·54
Orissa	0·98	1·22	0·87	1·15	1·22	1·19	0·63	1·23
Punjab	6·94	3·24	9·41	10·88	5·02	5·00	2·85	2·12
Rajasthan ..	1·83	1·47	2·32	2·19	1·44	1·72	1·02	1·34
Uttar Pradesh	5·51	7·62	4·66	5·84	6·02	6·10	7·39	8·18
West Bengal ..	8·62	18·39	4·99	6·54	11·50	12·57	14·44	20·96
Andaman and Nicobar Islands	0·02	0·05	N	0·01	0·04	0·06	0·05	0·05
Delhi	2·12	1·51	1·87	2·46	2·69	2·53	1·31	1·15
Himachal Pradesh	0·06	0·05	0·01	0·02	0·11	0·12	0·07	0·04
Manipur	0·07	N	0·14	0·05	..	..	..	..
Tripura	0·12	0·05	0·09	0·09	0·21	0·21	..	..

'N' indicates that the figures are negligible.

STATEMENT VIII.3

Distribution per 100 of factories and workers in each State into three class ranges of employment, 1961

State	Total		1—19		20—99		100+	
	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers	Number of factories	Number of workers
INDIA	**100·00**	**100·00**	**49·56**	**6·19**	**38·66**	**20·06**	**11·78**	**73·75**
Andhra Pradesh	100·00	100·00	58·09	12.14	36·87	31·36	5·04	56·50
Assam	100·00	100·00	41·26	6·35	36·98	28·24	21·76	65·41
Bihar	100·00	100.00	80·48	9·78	15·34	18·03	4·18	72·19
Gujarat	100·00	100·00	48·46	6·31	38·49	16·83	13·05	76·86
Jammu and Kashmir	100·00	100·00	24·46	4·18	54·68	27·32	20·86	68·50
Kerala	100·00	100·00	28·36	2·90	43·37	15·42	28·27	81·68
Madhya Pradesh	100·00	100·00	27·44	4·04	61·05	30·69	11·51	65·27
Madras	100·00	100·00	61·48	11·41	30·52	22·74	8·00	65·85
Maharashtra ..	100·00	100·00	45·47	5·87	41·18	18·64	13·35	75·49
Mysore	100·00	100·00	5·57	0·75	73·73	26·35	20·70	72·90
Orissa	100.00	100·00	44·06	5·85	48·36	19·66	7·58	74·49
Punjab	100.00	100·00	67·19	20·78	27·97	30·92	4·84	48·30
Rajasthan	100·00	100·00	62·91	9·23	30·53	23·47	6·56	67·30
Uttar Pradesh ..	100·00	100·00	41·91	4·75	42·28	16·07	15·81	79·18
West Bengal ..	100·00	100·00	28·70	2·20	51·57	13·71	19·73	84·09
Andaman and Nicobar Islands ..	100·00	100·00	9·09	0·69	63·64	24·81	27·27	74·50
Delhi	100·00	100·00	43·77	10·07	48·96	33·61	7·27	56·32
Himachal Pradesh	100·00	100·00	10·71	2·38	75·00	44·79	14·29	52·83
Manipur	100·00	100·00	100·00	100·00	..	..	..	..
Tripura	100·00	100·00	35·48	11·49	64·52	88·51	..	

STATEMENT VIII.4

Distribution of States by low, medium and high values in (a) *number of factories and* (b) *employment in small* (1—19), *medium* (20—99) *and large* (100+) *factories per cent of all factories in each State*

		Factories	Workers
Low values	Small factories	Less than 40 per cent	Less than 5 per cent
	Medium factories	Less than 30 per cent	Less than 20 per cent
	Large factories	Less than 10 per cent	Less than 50 per cent
Medium values	Small factories	40—50 per cent	5—10 per cent
	Medium factories	30—50 per cent	20—30 per cent
	Large factories	10—20 per cent	50—75 per cent
High values	Small factories	Over 50 per cent	Over 10 per cent
	Medium factories	Over 50 per cent	Over 30 per cent
	Large factories	Over 20 per cent	Over 75 per cent

STATEMENT VIII.4

Distribution of States by low, medium and high values in (a) *number of factories and* (b) *employment in small* (1—19), *medium* (20—99) *and large* (100+) *factories per cent of all factories in each State*—concld.

	Small factories	Medium factories	Large factories
Andhra Pradesh ..	(a) High	Medium	Low
	(b) High	High	Medium
Assam	(a) Medium	Medium	High
	(b) Medium	Medium	Medium
Bihar	(a) High	Low	Low
	(b) Medium	Low	Medium
Gujarat	(a) Medium	Medium	Medium
	(b) Medium	Low	High
Jammu and Kashmir ..	(a) Low	High	High
	(b) Low	Medium	Medium
Kerala	(a) Low	Medium	High
	(b) Low	Low	High
Madhya Pradesh	(a) Low	High	Medium
	(b) Low	High	Medium
Madras	(a) High	Medium	Low
	(b) High	Medium	Medium
Maharashtra	(a) Medium	Medium	Medium
	(b) Medium	Low	High
Mysore	(a) Low	High	High
	(b) Low	Medium	Medium
Orissa	(a) Medium	Medium	Low
	(b) Medium	Low	Medium
Punjab	(a) High	Low	Low
	(b) High	High	Low
Rajasthan	(a) High	Medium	Low
	(b) Medium	Medium	Medium
Uttar Pradesh	(a) Medium	Medium	Medium
	(b) Low	Low	High
West Bengal	(a) Low	High	Medium
	(b) Low	Low	High
Andaman and Nicobar Islands	(a) Low	High	High
	(b) Low	Medium	Medium
Delhi	(a) Medium	Medium	Low
	(b) High	High	Medium
Himachal Pradesh	(a) Low	High	Medium
	(b) Low	High	Medium
Manipur	(a) High	..	..
	(b) High	..	..
Tripura	(a) Low	High	
	(b) High	High	

(a) Value of factories.
(b) Value of employment.

B. Locational concentrations of factory employment

The statistics relating to this section will be found in Table VIII.2.

Each column of this table was arranged in ascending order of values for all the districts and quartiles were marked off. Thereafter the quartile values of the tered factories employing 100 or more ploying 100 persons or more were fixed upon as the decisive criterion on the level of industrialization. It was felt that whereas registered factories (a) employing less than 20 persons and (b) employing 20—99 persons generally describe the industrial climate inasmuch as they provide the clue to the extent of local savings

that go into the setting up of industrial establishments for local and regional needs, it is the factories which employ 100 persons or more that give an insight into the magnitude of industrial involvement. Further, it is not so much the number of factories employing 100 or more but the total employment in this category that gives us a yardstick for technological, industrial, economic and social commitments in an industrializing economy.

The following Table arranges all the districts of India by four orders of concentration of employment in registered factories employing 100 or more. For convenience, however, districts are listed under their respective States :

TABLE VIII.1

Distribution of all districts of India in order of concentration of total employment in factories employing 100 *persons or more*

NOTE : (1) + on the left of a district denotes that its quartile rank in respect of total factory employment is one level higher than its quartile rank in respect of employment in factories employing 100 persons or more. A single + denotes one higher rank.

(2) — on the left of a district denotes that its quartile rank in respect of total factory employment is one level lower than its quartile rank in respect of employment in factories employing 100 persons or more.

Ranges employed in this statement :

	Values of districts of the highest or 4th level of concentration	Values of districts of the third level of concentration	Values of districts of the second level of concentration	Values of districts of the bottom or first level of concentration
1 Total workers employed in all registered factories	10,816 to 505,390	3,541 to 10,815	712 to 3,540	0 to 711
2 Total workers employed in registered factories employing 100 persons or more ..	7,158 to 407,581	1,670 to 7,157	162 to 1,669	0 to 161
3 Ranges of employment in registered factories employing 100 persons or more				
A Low	7,158 to 11,732	1,670 to 2,811	162 to 536	0
B Medium	11,733 to 19,442	2,812 to 4,324	537 to 992	100 to 130
C High	19,443 to 407,581	4,325 to 7,157	993 to 1,669	131 to 161

In the table shown on next page the range (low, medium or high) under which a district falls in its specified level is signified by A, B or C respectively against each name. Thus Krishna in Andhra Pradesh denotes that (1) Krishna falls in the third level of concentration of factories employing 100 persons or more, (2) that total employment in Krishna in factories employing 100 persons or more is within the range 2,812—4,324 and (3) that Krishna's quartile rank in respect of total factory employment is one level higher than its quartile rank in respect of employment in factories employing 100 persons or more.

TABLE VIII.1

Distribution of all districts of India in order of concentration of total employment in factories employing 100 persons or more—contd.

	Values of districts of the highest or 4th level of concentration (7,158 to 407,581)	Values of districts of the third level of concentration (1,670 to 7,157)	Values of districts of the second level of concentration (162 to 1,669)	Values of districts of the bottom or first level of concentration (0 to 161)
Andhra Pradesh	Guntur (C) Visakhapatnam (B) East Godavari (B) Hyderabad (B) West Godavari (A)	Kurnool (C) Warangal (C) Adilabad (B) +Krishna (B) +Nizamabad (A)	+Srikakulam (C) +Chittoor (B) +Anantapur (B) Khammam (B) +Nellore (A) +Karimnagar (A) Nalgonda (A)	+Mahbubnagar (A) Medak (A) +Cuddapah (A)
Assam	Lakhimpur (C) Sibsagar (B)	Darrang (C) Goalpara (A) Cachar (A)	+Kamrup (C) Nowgong (C) United Khasi and Jaintia Hills (A)	United Mikir and North Cachar Hills (A) Garo Hills (A) Mizo Hills (A)
Bihar	—Dhanbad (C) Singhbhum (C) Monghyr (B) Hazaribagh (B) —Darbhanga (A) Patna (A) —Shahabad (A)	Saran (C) Champaran (C) Purnea (C) Muzaffarpur (B) Ranchi (A)	+Gaya (C) +Palamau (C) +Bhagalpur (C) Santal Parganas (B)	+Saharsa (A)
Gujarat	Ahmedabad (C) Baroda (C) Surat (C) Mehsana (B) Jamnagar (A) Surendranagar (A) Bhavnagar (A) Kaira (A) —Broach (A)	Junagadh (C) Sabarkantha (B) Panchmahals (B) +Rajkot (C) —Kutch (A)	Amreli (C)	Banaskantha (A) Dangs (A)
Jammu and Kashmir ..		Srinagar (C)	Jammu (C) —Anantnag (A) —Poonch (A)	Baramulla (A) Ladakh (A) Doda (A) Udhampur (A) Kathua (A)
Kerala	Kozhikode (C) Ernakulam (C) Quilon (C) Cannanore (B) Trichur (B) Kottayam (B) Alleppey (B) Trivandrum (A)	+Palghat (C)		

TABLE VIII.1

Distribution of all districts of India in order of concentration of total employment in factories employing 100 persons or more—contd.

State	Values of districts of the highest or 4th level of concentration (7,158 to 407,581)	Values of districts of the third level of concentration (1,670 to 7,157)	Values of districts of the second level of concentration (162 to 1,669)	Values of districts of the bottom or first level of concentration (0 to 161)
Madhya Pradesh	Indore (C) Gwalior (B) Ujjain (B) Durg(A) Jabalpur (A)	East Nimar (C) Sehore(C) +Raipur (C) Ratlam(B) Mandsaur(A)	Dewas (C) Satna (C) +Bilaspur(C) Narsimhapur(B) Rewa(B) Raigarh(B) Morena(B) +West Nimar(B) Shajapur(B) Hoshangabad(A) —*Chhindwara(A)* Sagar(A) Rajgarh(A) —Surguja(A) Bastar(A)	Shahdol (B) Shivpuri (B) Guna(B) Jhabua(B) +Dhar(B) Sidhi(A) Mandla(A) Seoni (A) +Balaghat(A) Bhind(A) *Datia(A)* Vidisha(A) Raisen(A) Tikamgarh(A) Chhatarpur(A) Panna(A) Damoh(A) Betul(A)
Madras ..	Madras(C) Coimbatore(C) Madurai(C) *Tirunelveli(C)* Chingleput(B) Salem(A) Tiruchirapalli(A) —Ramanathapuram(A)	South Arcot (C) North Arcot(B)	+Thanjavur(C) +Nilgiri(B) Kanyakumari(B)	
Maharashtra ..	Thana(C) Greater Bombay(C) Sholapur(C) Nagpur(C) Poona(B) Jalgaon(A) Nasik(A) Ahmadnagar(A)	Satara(C) Nanded(C) Wardha(C) Amravati(C) Akola(C) Kolhapur(B) Sangli(B) Buldhana(B) Aurangabad(B) Dhulia(B) Yeotmal(A) —Chanda(A)	+Bhandara(C) Parbhani(C) Kolaba(C) Osmanabad(B) Ratnagiri(B)	Bhir(A)
Mysore ..	Bangalore(C) Mysore(B) South Kanara(B) Dharwar(B) —Shimoga(A) +Chitradurga(A) Belgaum(A)	Bijapur(B) Raichur(B) Bellary(B) —Mandya(A) —North Kanara(A)	Hassan(C) Gulbarga(C) Coorg(A) Chikmagalur(A) Tumkur(A) Kolar(A)	Bidar(A)
Orissa ..	Sundargarh(B) Cuttack(A)	Sambalpur(B)	Koraput(B) Kalahandi(A) Balasore(A) —Keonjhar(A)	+Puri(C) +Garjam(B) Baudh-Khondmals(A) Bolangir(A) Dhenkanal(A) Mayurbhanj(A)

TABLE VIII.1

Distribution of all districts of India in order of concentration of total employment in factories employing 100 *persons or more*—concld.

State	Values of districts of the highest or 4th level of concentration (7,158 to 407,581)	Values of districts of the third level of concentration (1,670 to 7,157)	Values of districts of the second level of concentration (162 to 1,669)	Values of districts of the bottom or first level of concentration (0 to161)
Punjab ..	Ambala(B) Amritsar(A)	Hissar(C) Gurgaon(C) Patiala(B) +Jullundur(B) Hoshiarpur(B) Gurdaspur(B) Kapurthala(B) —Rohtak(A) +Ludhiana(A) Ferozepur(A)	+Karnal(C) Simla(B) Mahendragarh(B) Sangrur(A)	Kangra(A) Lahaul and Spiti(A) +Bhatinda(A)
Rajasthan ..	Ajmer(B)	Jaipur(C) Jodhpur(C) —Sawai Madhopur(B) —Bharatpur(A) Ganganagar(A) Bikaner(A) —Pali(A) —Bhilwara(A)	Bundi(C) Udaipur(C) Kota(B) —Chitorgarh(A)	Nagaur(B) Sirohi(A) Jalor(A) Barmer(A) Jaisalmer(A) Churu(A) Jhunjhunu(A) Sikar(A) Alwar(A) Jhalawar(A) Tonk(A) Banswara(A) Dungarpur(A)
Uttar Pradesh ..	Kanpur(C) Gorakhpur(B) Meerut(B) Agra(B) Lucknow(B) —Deoria(A) —Bareilly(A) Saharanpur(A) Aligarh(A)	Muzaffarnagar(C) Rampur(C) Varanasi(C) Allahabad(C) Sitapur(B) Bijnor(B) Mirzapur(B) Jhansi(B) —Mainpuri(B) —Kheri(A) —Unnao(A) —Gonda(A) —Basti(A) Moradabad(A) —Pilibhit(A) Dehra Dun(A)	Naini Tal(C) Bulandshahr(C) Shahjahanpur(C) Farrukhabad(C) Faizabad(C) Bara Banki (C) —Almora(B) Mathura(B) Etah(B) Ghazipur(B) Bahraich(B) Hardoi(B) —Budaun(A) —Azamgarh(A) Jaunpur(A)	Garhwal(C) Ballia(C) Tehri Garhwal(B) Hamirpur(B) Uttar Kashi (A) Chamoli(A) Pithoragarh(A) Fatehpur(A) Banda(A) Rae Bareli(A) Sultanpur(A) Pratapgarh(A) +Etawah(A) Jalaun(A)
West Bengal	Burdwan(C) Hooghly(C) Calcutta(C) 24-Parganas(C) Howrah(C) Jalpaiguri(B) Midnapore(B)	Darjeeling(A) —Nadia(A)	+Birbhum(C) Murshidabad(B) Bankura(B) Purulia(B) West Dinajpur(A)	Cooch Behar(B) Malda(A)
Andaman and Nicobar Islands			Andaman and Nicobar Islands(C)	
Delhi	Delhi(C)			
Himachal Pradesh			Mahasu(A) Sirmur(A)	Bilaspur(B) Chamba(A) Mandi(A) Kinnaur(A)
Manipur				Manipur(A)
Tripura				+Tripura(A)

This table has been expressed below in terms of the concentration ratio between registered factories and total employment in registered factories in each State. Sri P. S. Sharma, Research Officer, was good enough to work out the following values for me :

STATEMENT VIII.5

Pattern of concentration of workers in factories (States arranged according to rising concentration ratios)

State	Concentration ratio between number of factories and total employment in them	Percentage of factories employing 100 persons or more to total factories	Percentage of total workers in factories employing 100 persons or more to total workers employed in factories	Cumulative percentage of workers in registered factories engaged in factories arranged according to descending size of employment in all factories				
				Top 5 per cent of factories	Top 10 per cent of factories	Top 20 per cent of factories	Top 40 per cent of factories	Bottom 60 per cent of factories
1	2	3	4	5	6	7	8	9
Tripura ..	·2399	..	..	29	41	60	76	24
Himachal Pradesh	·4155	14·29	52·83	35	48	63	79	21
Andaman and Nicobar Islands ..	·4905	27·27	74·50	41	53	68	82	18
Jammu and Kashmir	·5204	20·86	68·50	40	52	67	84	16
Assam ..	·5295	21·76	65·41	38	49	63	82	18
Mysore ..	·5311	20·70	72·90	44	56	71	86	14
Kerala ..	·5653	28·27	81·68	48	60	76	88	12
Punjab ..	·5842	4·84	48·30	48	57	69	83	17
Delhi ..	·5883	7·27	56·32	52	61	71	84	16
Madhya Pradesh ..	·5971	11·51	65·27	50	62	74	86	14
Andhra Pradesh ..	·6520	5·04	56·50	56	65	77	87	13
West Bengal ..	·6716	19·73	84·09	64	73	84	92	8
Uttar Pradesh ..	·6810	15·81	79·18	54	70	82	91	9
Maharashtra ..	·6820	13·35	75·49	59	70	81	90	10
Madras ..	·6835	8·00	65·85	56	69	79	89	11
Gujarat ..	·6954	13·05	76·86	62	73	83	91	9
Rajasthan ..	·7269	6·56	67·30	62	75	84	92	8
Orissa ..	·7274	7·58	74·49	68	78	85	92	8
Bihar ..	·8102	4·18	72·49	76	84	90	94	6
All-India* ..	**·6949**	**11·78**	**73·74**	**54**	**71**	**82**	**92**	**8**

*Excludes Manipur.

The above statement brings out how States like Bihar, Orissa and Rajasthan still rely for most of their strength on a small number of factories employing a large number of workers; how States like Gujarat, Maharashtra, Uttar Pradesh and West Bengal still lean very heavily on large establishments but are widening their basis of small and medium factories; States like Madras, Andhra Pradesh, Madhya Pradesh, Delhi, Punjab, Kerala and Mysore are going in for balanced growth between small, medium and large factories; and States like Assam, Jammu and Kashmir, Andaman and Nicobar Islands, Himachal Pradesh and Tripura could do with more medium factories.

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
INDIA	**49,960**	**3,915,131**	**24,759**	**242,490**	**19,315**	**785,373**	**5,886**	**2,887,268**
ANDHRA PRADESH	**4,918**	**223,371**	**2,857**	**27,118**	**1,813**	**70,051**	**248**	**126,202**
Srikakulam	215	3,862	169	1,166	43	1,426	3	1,270
Visakhapatnam	258	15,906	174	1,099	71	2,458	13	12,349
East Godavari	511	21,302	361	3,416	130	4,213	20	13,673
West Godavari	432	16,885	256	2,051	164	6,341	12	8,493
Krishna	390	11,928	243	2,448	135	5,504	12	3,976
Guntur	696	66,462	257	2,598	329	14,706	110	49,158
Nellore	202	3,815	147	1,341	52	1,991	3	483
Chittoor	224	4,158	158	1,324	63	2,126	3	708
Cuddapah	78	1,444	45	419	33	1,025	..	..
Anantapur	157	3,832	111	1,175	44	1,665	2	992
Kurnool	234	9,560	115	1,058	107	4,165	12	4,337
Mahbubnagar	97	1,659	60	429	37	1,230	..	..
Hyderabad	533	28,531	369	3,923	130	6,305	34	18,303
Medak	43	483	34	293	9	190	..	..
Nizamabad	382	12,013	147	1,368	229	8,022	6	2,623
Adilabad	70	6,017	52	1,422	11	450	7	4,145
Karimnagar	178	5,360	39	368	136	4,680	3	312
Warangal	130	7,961	57	630	68	2,823	5	4,508
Khammam	33	1,221	18	177	13	479	2	565
Nalgonda	55	972	45	413	9	252	1	307
ASSAM	**1,241**	**80,047**	**512**	**5,087**	**459**	**22,602**	**270**	**52,358**
Goalpara	72	3,570	47	499	18	739	7	2,332
Kamrup	140	3,896	93	1,022	39	1,724	8	1,150
Darrang	149	9,837	59	603	43	2,458	47	6,776
Lakhimpur	357	32,749	114	1,169	130	6,640	113	24,940
Nowgong	80	2,719	50	478	23	926	7	1,315
Sibsagar	268	18,858	88	709	109	5,255	71	12,894
Cachar	130	7,153	38	374	76	4,163	16	2,616
Garo Hills	2	34	1	12	1	22	..	..
United Khasi and Jaintia Hills	26	848	13	117	12	396	1	335
United Mikir and North Cachar Hills	17	383	9	104	8	279	..	..
Mizo Hills	..	..	..	..	..	..	..	..
BIHAR	**6,133**	**209,290**	**4,936**	**20,474**	**941**	**37,736**	**256**	**151,080**
Patna	837	16,164	693	3,120	105	3,875	39	9,169
Gaya	566	4,824	534	1,628	28	1,931	4	1,265
Shahabad	530	10,815	488	1,608	26	1,039	16	8,168
Saran	159	6,484	144	465	5	169	10	5,850
Champaran	255	6,948	212	645	32	1,233	11	5,070
Muzaffarpur	294	5,006	259	912	30	1,105	5	2,989
Darbhanga	253	9,433	218	691	26	1,140	9	7,602
Monghyr	391	17,524	357	1,264	28	1,162	6	15,098
Bhagalpur	332	4,182	280	1,253	46	1,809	6	1,120
Saharsa	115	1,047	105	390	10	657	..	..
Purnea	281	8,718	231	1,302	40	1,858	10	5,558
Santal Parganas	317	2,954	277	1,029	36	1,335	4	590
Palamau	109	3,774	67	328	39	1,815	3	1,631
Hazaribagh	412	22,487	208	1,006	141	5,923	63	15,558
Ranchi	358	5,985	273	1,472	76	2,554	9	1,959
Dhanbad	365	26,969	281	1,090	51	2,388	33	23,491
Singhbhum	559	55,976	309	2,271	222	7,743	28	45,962

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—contd.

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
GUJARAT	**3,840**	**360,528**	**1,861**	**22,744**	**1,478**	**60,693**	**501**	**277,091**
Jamnagar	152	11,146	70	945	64	2,444	18	7,757
Rajkot	310	12,062	164	2,069	129	5,017	17	4,976
Surendranagar	111	11,493	32	378	51	1,906	28	9,209
Bhavnagar	235	13,353	124	1,474	96	3,540	15	8,339
Amreli	50	1,836	36	474	10	296	4	1,066
Junagadh	152	8,916	77	960	61	2,303	14	5,653
Kutch	34	3,042	11	143	17	958	6	1,941
Banaskantha	22	524	11	146	11	378	..	..
Sabarkantha	58	4,927	8	114	31	1,638	19	3,175
Mehsana	110	15,403	39	497	52	2,415	19	12,491
Ahmedabad	1,006	170,258	513	6,495	342	14,007	151	149,756
Kaira	322	20,383	107	1,341	185	7,429	30	11,613
Panchmahals	61	5,175	20	262	33	1,196	8	3,717
Baroda	264	32,436	89	1,101	113	5,341	62	25,994
Broach	70	9,475	12	149	28	1,506	30	7,820
Surat	82	40,067	548	6,196	254	10,287	80	23,584
Dangs	1	32	..	..	1	32	..	..
JAMMU AND KASHMIR	**139**	**10,964**	**34**	**458**	**76**	**2,995**	**29**	**7,511**
Anantnag	10	479	1	11	7	172	2	296
Srinagar	80	7,178	18	229	46	1,803	16	5,146
Baramulla	6	237	2	28	4	209	..	..
Ladakh	..	..	..	..	..	..	..	..
Doda	2	40	1	10	1	30	..	..
Udhampur	1	75	..	..	1	75	..	..
Jammu	38	2,469	12	180	16	620	10	1,669
Kathua	1	86	..	..	1	86	..	..
Poonch	1	400	..	..	..	..	1	400
KERALA	**2,412**	**252,961**	**684**	**7,328**	**1,046**	**39,008**	**682**	**206,625**
Cannanore	367	23,096	109	1,644	186	8,102	72	13,350
Kozhikode	274	27,772	47	472	131	5,350	96	21,950
Palghat	215	11,551	37	446	140	4,555	38	6,550
Trichur	296	22,349	67	584	157	5,840	72	15,925
Ernakulam	253	23,911	87	681	111	3,630	55	19,600
Kottayam	229	16,841	72	600	78	3,091	79	13,150
Alleppey	316	24,211	160	1,991	95	3,520	61	18,700
Quilon	344	91,933	48	453	113	3,830	183	87,650
Trivandrum	118	11,297	57	457	35	1,090	26	9,750
MADHYA PRADESH	**1,928**	**155,564**	**529**	**6,280**	**1,177**	**47,743**	**222**	**101,541**
Morena	17	950	5	90	11	231	1	629
Bhind	5	83	2	22	3	61	..	..
Gwalior	73	13,653	23	263	37	1,430	13	11,960
Datia	4	72	3	37	1	35	..	..
Shivpuri	10	340	1	10	8	230	1	100
Guna	7	205	3	15	3	90	1	100
Tikamgarh	..	..	..	..	..	..	..	..
Chhatarpur	1	63	..	..	1	63	..	..
Panna	..	..	..	..	..	..	..	..
Satna	53	3,275	8	104	39	1,625	6	1,546
Rewa	10	871	3	40	5	202	2	629
Shahdol	12	442	1	16	10	326	1	100
Sidhi	..	..	..	..	..	..	..	..
Mandsaur	69	3,881	16	227	46	1,744	7	1,910
Ratlam	63	4,893	13	132	42	1,702	8	3,059

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—contd.

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
MADHYA PRADESH—*concld.*								
Ujjain	96	16,396	20	247	63	2,728	13	13,421
Jhabua	14	558	3	34	10	424	1	100
Dhar	31	1,410	4	38	26	1,272	1	100
Indore	216	25,717	78	831	115	4,011	23	20,875
Dewas	52	2,261	15	171	32	982	5	1,108
West Nimar	93	4,208	17	203	71	3,376	5	629
East Nimar	75	8,549	12	152	46	2,427	17	5,970
Shajapur	39	2,279	5	60	27	1,330	7	889
Rajgarh	23	1,122	3	35	15	587	5	500
Vidisha	8	215	3	32	5	183	..	..
Sehore	42	7,777	7	90	24	911	11	6,776
Raisen	..	..	..	..	..	..	..	..
Hoshangabad	36	1,551	11	119	21	991	4	441
Betul	2	40	..	..	2	40	..	..
Sagar	48	1,799	16	241	29	1,246	3	312
Damoh	13	395	6	84	7	311	..	..
Jabalpur	201	14,893	60	780	117	4,356	24	9,757
Narsimhapur	22	1,176	8	91	9	392	5	693
Mandla	..	..	..	..	..	..	..	..
Chhindwara	19	673	8	102	9	371	2	200
Seoni	17	351	6	78	11	273	..	..
Balaghat	43	1,091	16	160	27	931	..	..
Surguja	4	241	..	..	2	41	2	200
Bilaspur	104	4,336	39	510	59	2,594	6	1,232
Rajgarh	56	3,163	5	71	48	2,101	3	991
Durg	115	14,042	44	474	44	1,836	27	11,732
Raipur	218	11,726	63	698	140	5,809	15	5,219
Bastar	17	867	2	23	12	481	3	363
MADRAS	**5,587**	**300,387**	**3,435**	**34,288**	**1,705**	**68,294**	**447**	**197,805**
Madras	885	55,331	520	5,538	287	12,084	78	37,709
Chingleput	241	21,591	115	1,099	88	3,589	38	16,903
North Arcot	334	10,053	209	1,759	115	4,521	10	3,773
South Arcot	186	7,633	135	1,208	38	1,602	13	4,823
Salem	510	17,086	353	3,841	139	4,595	18	8,650
Coimbatore	1,060	84,287	556	5,797	374	16,184	130	62,306
Nilgiri	118	3,908	55	570	59	2,607	4	731
Madurai	505	31,757	318	3,213	148	5,689	39	22,855
Tiruchirapalli	470	16,009	361	3,360	89	3,690	20	8,959
Thanjavur	357	6,647	277	2,881	73	2,287	7	1,479
Ramanathapuram	407	17,189	210	1,935	147	5,940	50	9,314
Tirunelveli	437	26,426	277	2,569	123	4,279	37	19,578
Kanyakumari	77	2,470	49	518	25	1,227	3	725
MAHARASHTRA	**8,233**	**787,379**	**3,744**	**46,222**	**3,390**	**146,736**	**1,099**	**594,421**
Greater Bombay	4,064	505,390	1,691	21,844	1,743	75,965	630	407,581
Thana	493	35,399	223	2,679	210	8,485	60	24,235
Kolaba	76	2,943	36	375	34	1,345	6	1,223
Ratnagiri	36	1,779	12	144	19	731	5	904
Nasik	315	18,128	185	2,118	105	4,750	25	11,260
Dhulia	178	8,775	86	1,212	82	3,506	10	4,057
Jalgaon	223	16,165	94	1,079	96	4,597	33	10,489
Ahmadnagar	238	18,140	73	840	120	6,120	45	11,180
Poona	716	35,361	379	4,871	285	11,434	52	19,056
Satara	66	6,014	42	443	18	642	6	4,929
Sangli	85	5,127	57	625	21	817	7	3,685
Sholapur	324	36,804	176	2,180	111	4,797	37	29,827
Kolhapur	315	10,315	197	2,345	107	3,729	11	4,241

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—contd.

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
MAHARASHTRA—*concld.*								
Aurangabad	104	6,305	39	475	48	2,329	17	3,501
Parbhani	50	2,673	12	137	31	1,456	7	1,080
Bhir	25	556	16	177	9	379	..	..
Nanded	42	6,015	22	235	12	620	8	5,160
Osmanabad	20	1,055	11	139	5	268	4	648
Buldhana	55	5,165	4	50	33	1,772	18	3,343
Akola	85	6,979	26	291	40	1,659	19	5,029
Amravati	77	6,879	24	287	34	1,732	19	4,860
Yeotmal	58	4,472	11	132	33	1,529	14	2,811
Wardha	40	7,416	10	98	18	848	12	6,470
Nagpur	329	31,298	196	2,199	93	3,652	40	25,447
Bhandara	181	5,671	100	1,027	72	3,094	9	1,550
Chanda	38	2,555	22	220	11	480	5	1,855
MYSORE	**2,406**	**219,298**	**134**	**1,634**	**1,774**	**57,785**	**498**	**159,879**
Bangalore	640	80,498	53	685	467	16,820	120	62,993
Tumkur	35	1,456	8	111	24	845	3	500
Chitradurga	62	10,416	5	61	31	1,055	26	9,300
Kolar	32	1,416	1	16	28	950	3	450
Bellary	104	6,730	..	..	90	2,980	14	3,750
Mysore	172	20,451	16	196	119	4,377	37	15,878
South Kanara	322	25,720	1	10	233	7,260	88	18,450
Coorg	20	881	11	126	8	255	1	500
Hassan	18	1,526	1	16	10	360	7	1,150
Shimoga	57	9,063	14	143	34	918	9	8,002
Chikmagalur	29	1,314	6	78	22	736	1	500
Mandya	15	2,530	..	..	13	310	2	2,220
Belgaum	246	14,990	1	15	193	5,975	52	9,000
Bijapur	121	6,602	4	42	97	3,110	20	3,450
North Kanara	31	2,685	8	85	17	500	6	2,100
Dharwar	288	24,056	4	40	196	6,606	88	17,410
Gulbarga	58	2,640	1	10	50	1,279	7	1,351
Bidar	4	80	..	..	4	80	..	..
Raichur	152	6,244	..	..	138	3,369	14	2,875
ORISSA	**488**	**47,739**	**215**	**2,791**	**236**	**9,387**	**37**	**35,561**
Kalahandi	18	797	7	90	10	522	1	185
Koraput	50	1,758	29	378	18	760	3	620
Sambalpur	93	6,210	51	646	36	1,240	6	4,324
Bolangir	23	674	10	135	13	539	..	..
Baudh-Khondmals	1	36	..	..	1	36	..	..
Ganjam	45	1,074	25	320	19	649	1	105
Sundargarh	20	19,698	7	81	4	175	9	19,442
Dhenkanal	22	421	14	210	8	211	..	..
Puri	26	851	13	178	12	512	1	161
Keonjhar	5	573	2	17	1	20	2	536
Cuttack	105	12,152	39	478	55	1,905	11	9,769
Mayurbhanj	11	342	5	73	6	269	..	..
Balasore	69	3,153	13	185	53	2,549	3	419
PUNJAB	**3,468**	**127,018**	**2,330**	**26,390**	**970**	**39,273**	**168**	**61,355**
Hissar	96	6,564	61	642	27	1,022	8	4,900
Rohtak	75	3,540	46	552	25	889	4	2,099
Gurgaon	136	9,626	48	628	62	2,714	26	6,284
Karnal	102	3,631	43	437	52	2,123	7	1,071
Ambala	279	18,665	168	1,985	92	3,545	19	13,135
Simla	5	965	1	7	2	86	2	872

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—contd.

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
PUNJAB—*concld.*								
Kangra	14	396	4	48	10	348	.	
Lahaul and Spiti	..	..	..	..	..	..	.	.
Hoshiarpur	82	5,589	51	341	25	1,081	6	4,167
Jullundur	437	12,156	283	3,404	142	5,196	12	3,556
Ludhiana	544	13,123	363	4,317	164	6,204	17	2,602
Ferozepur	91	3,954	49	497	32	1,628	10	1,829
Amritsar	1,020	24,389	857	9,582	137	5,548	26	9,259
Gurdaspur	234	6,666	183	2,012	48	1,704	3	2,950
Kapurthala	105	5,908	68	743	29	1,215	8	3,950
Bhatinda	64	1,899	36	449	28	1,450	..	..
Sangrur	57	2,321	24	257	31	1,603	2	461
Patiala	123	6,868	43	477	63	2,857	17	3,534
Mahendragarh	4	758	2	12	1	60	1	686
RAJASTHAN	**914**	**57,507**	**575**	**5,306**	**279**	**13,500**	**60**	**38,701**
Ganganagar	82	3,800	62	477	14	767	6	2,556
Bikaner	72	3,601	46	460	23	1,071	3	2,070
Churu	4	41	4	41	..	..		..
Jhunjhunu	3	57	2	20	1	37		..
Alwar	28	498	18	103	10	395	.	..
Bharatpur	12	1,981	4	17	6	232	2	1,732
Sawai Madhopur	11	2,961	7	70	2	74	2	2,817
Jaipur	144	9,853	89	943	46	3,513	9	5,397
Sikar	7	125	5	17	2	108	..	..
Ajmer	126	15,654	38	463	79	3,413	9	11,778
Tonk	5	163	3	38	2	125		..
Jaisalmer	1	22		..	1	22		..
Jodhpur	110	5,675	83	660	20	670	7	4,345
Nagaur	21	641	9	340	11	190	1	111
Pali	20	2,497	17	136	2	77	1	2,284
Barmer	2	63	.	.	2	63	.	..
Jalor	1	15	1	15			.	
Sirohi	6	37	6	37	..	..		..
Bhilwara	61	3,395	34	323	20	836	7	2,236
Udaipur	51	2,032	35	305	9	483	7	1,244
Chitorgarh	32	711	25	197	6	331	1	183
Dungarpur	1	15	1	15	..	..		..
Banswara	14	195	11	61	3	134	.	..
Bundi	10	1,248	6	37	3	87	1	1,124
Kota	66	1,852	51	397	11	631	4	824
Jhalawar	24	375	18	134	6	241	.	..
UTTAR PRADESH	**2,751**	**298,174**	**1,153**	**14,170**	**1,163**	**47,925**	**435**	**236,079**
Uttar Kashi		.		.				..
Chamoli						.	.	..
Pithoragarh		.					..	..
Tehri Garhwal	1	120		..	.		1	120
Garhwal	3	277			2	132	1	145
Almora	5	677			3	100	2	577
Naini Tal	28	2,031	13	164	13	609	2	1,258
Bijnor	51	4,240	19	277	27	1,052	5	2,911
Moradabad	81	4,767	38	464	39	1,740	4	2,563
Budaun	12	682	9	85	2	123	1	474
Rampur	20	5,437	7	86	5	197	8	5,154
Bareilly	71	9,098	41	498	14	541	16	8,059
Pilibhit	5	2,030	2	32	2	57	1	1,941
Shahjahanpur	41	2,248	16	178	23	918	2	1,152
Dehra Dun	58	4,158	20	290	28	1,195	10	2,673
Saharanpur	72	12,594	27	308	30	1,320	15	10,966

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—contd.

State/District	Size of employment							
	Total		1—19		20—99		100+	
	No.	Workers	No.	Workers	No.	Workers	No.	Workers
1	2	3	4	5	6	7	8	9
UTTAR PRADESH—*concld.*								
Muzaffarnagar	99	8,738	35	504	59	2,374	5	5,860
Meerut	246	24,692	82	1,049	127	5,247	37	18,396
Bulandshahr	30	1,903	10	133	18	753	2	1,017
Aligarh	155	11,467	71	930	63	2,438	21	8,099
Mathura	35	1,612	14	261	18	662	3	689
Agra	383	19,775	175	1,579	151	6,386	57	11,810
Etah	8	1,042	4	56	2	70	2	916
Mainpuri	28	3,511	9	137	13	376	6	2,998
Farrukhabad	46	2,516	19	274	25	904	2	1,338
Etawah	48	1,146	25	343	23	803	..	..
Kanpur	414	76,306	172	2,178	168	7,228	74	66,900
Fatehpur	9	287	4	45	5	242	..	..
Allahabad	134	9,562	69	873	42	1,946	23	6,743
Jhansi	39	4,185	23	269	14	575	2	3,341
Jalaun	2	73	..	..	2	73	..	..
Hamirpur	2	175	..	..	1	65	1	110
Banda	16	264	11	124	5	140	..	..
Kheri	25	2,469	10	117	13	478	2	1,874
Sitapur	25	3,734	13	143	8	274	4	3,317
Hardoi	4	685	1	13	2	56	1	616
Unnao	8	1,816	2	16	2	105	4	1,695
Lucknow	172	22,984	76	1,024	61	2,593	35	19,367
Rae Bareli	3	65	1	14	2	51	..	..
Bahraich	32	1,209	18	188	13	464	1	557
Gonda	32	2,684	19	209	7	347	6	2,128
Bara Banki	7	1,190	3	32	2	85	2	1,073
Faizabad	17	1,485	13	162	1	80	3	1,243
Sultanpur	3	115	1	14	2	101	..	..
Pratapgarh	1	38	..	..	1	38	..	..
Basti	11	2,208	3	32	4	203	4	1,973
Gorakhpur	44	15,695	14	187	13	517	17	14,991
Deoria	18	9,495	..	..	3	151	15	9,344
Azamgarh	11	614	3	42	6	283	2	289
Jaunpur	11	774	3	41	7	287	1	446
Ballia	5	256	2	31	2	65	1	160
Ghazipur	7	919	1	7	4	162	2	750
Varanasi	134	10,128	48	657	61	2,314	25	7,157
Mirzapur	39	3,998	7	104	25	1,005	7	2,889
WEST BENGAL	**4,307**	**719,793**	**1,236**	**15,844**	**2,221**	**98,697**	**850**	**605,252**
Darjeeling	171	8,877	34	444	122	6,127	15	2,306
Jalpaiguri	226	20,488	50	638	75	4,540	101	15,310
Cooch Behar	13	525	2	31	10	390	1	104
West Dinajpur	33	1,695	..	..	31	1,493	2	202
Malda	6	106	4	40	2	66	..	..
Murshidabad	14	1,339	7	85	5	276	2	978
Nadia	25	3,249	4	53	14	715	7	2,481
24-Parganas	672	228,542	183	2,123	286	12,826	203	213,593
Calcutta	1,630	151,179	554	7,196	841	35,655	235	108,328
Howrah	864	143,417	281	3,695	427	17,776	156	121,946
Hooghly	156	72,888	26	338	79	3,348	51	69,202
Burdwan	199	59,794	47	606	110	4,872	42	54,316
Birbhum	74	5,040	5	72	58	3,311	11	1,657
Bankura	61	2,870	14	212	41	1,768	6	890
Midnapore	103	16,972	10	124	80	3,647	13	13,201
Purulia	60	2,812	15	187	40	1,887	5	738
ANDAMAN AND NICOBAR ISLANDS	**11**	**1,882**	**1**	**13**	**7**	**467**	**3**	**1,402**

TABLE VIII.2

Factories classified by size of workers employed, by districts in each State, 1961—concld.

State/District	Size of employment: Total No.	Total Workers	1—19 No.	1—19 Workers	20—99 No.	20—99 Workers	100+ No.	100+ Workers
1	2	3	4	5	6	7	8	9
DELHI	**1,060**	**59,150**	**464**	**5,957**	**519**	**19,878**	**77**	**33,315**
HIMACHAL PRADESH	**28**	**2,063**	**3**	**49**	**21**	**924**	**4**	**1,090**
Chamba	2	66	..	..	2	66	..	..
Mandi	8	288	1	17	7	271	..	..
Bilaspur	2	130	..	..	1	30	1	100
Mahasu	10	839	1	15	7	324	2	500
Sirmur	6	740	1	17	4	233	1	490
Kinnaur	..	..	..	..	..	..	..	..
LACCADIVE, MINICOY AND AMINDIVI ISLANDS	..	..	..	..	..	..	..	..
MANIPUR	**34**	**119**	**34**	**119**	..	..	..	..
TRIPURA	**62**	**1,897**	**22**	**218**	**40**	**1,679**	..	..
DADRA AND NAGAR HAVELI	..	..	..	..	..	..	..	..
PONDICHERRY								
Pondicherry	Not available							
Karaikal								
Mahe								
Yanam								
NORTH-EAST FRONTIER AGENCY	..	..	..	..	..	..	..	..
NAGALAND	..	..	..	..	..	..	..	..
Kohima	..	..	..	..	..	..	..	..
Mokokchung	..	..	..	..	..	..	..	..
Tuensang	..	..	..	..	..	..	..	..
SIKKIM	..	..	..	..	..	..	..	..

APPENDIX

Summary of relevant chapter in State Census Reports

The summary for each State has been made by me and I am responsible for any lapse, omission or misplacement of emphasis.

A.M.

APPENDIX

SUMMARY OF RELEVANT CHAPTER IN STATE CENSUS REPORTS

Andhra Pradesh

The following are the twelve numerically most important industries in Andhra Pradesh :

Rank	ISIC Minor Group	Description	Number of workshops and factories		
			Total	Rural	Urban
1	2	3	4	5	6
1	235	Cotton weaving in handlooms	38,297	31,195	7,102
2	311	Shoes and leather footwear	15,465	14,420	1,045
3	289	Miscellaneous wood and allied products ..	13,112	11,972	1,140
4	350	Earthenware and earthen pottery	11,336	10,646	690
5	393	Jewellery	11,074	7,825	3,249
6	273	Textile garments	9,587	5,009	4,578
7	369	Sundry hardwares (blacksmithy)	9,316	7,764	1,552
8	200	Milling of cereals	8,787	5,915	2,872
9	220 and 222	Bidi, cigarette and cigarette tobacco	7,987	7,090	897
10	207	Oil milling (edible)	3,714	2,748	966
11	388	Repairing of bicycles and tricycles	3,494	965	2,529
12	288	Bamboo, cane-ware etc.	3,479	2,761	718

Let us now have a look at the distribution of workshops and factories by major and minor ISIC groups.

ISIC Major Group 04 : Livestock and hunting

The housing census has enumerated 19 units in the State, 14 in rural areas and 5 in urban areas. The total number of persons employed is 30—22 in rural areas and 8 in urban. It seems likely that a large number of establishments have been left out because they fell outside the technical scope of definition adopted by the enumerator.

ISIC Major Group 20 : Foodstuffs

Minor Group 200 : Milling of rice, wheat, etc. Milling of cereals is, numerically, from the point of number of units, the eighth most important industry in the State. There are 5,915 units in rural areas and 2,872 units in urban areas. Rice, of course, is the most important cereal milled, although the minor group includes atta, flour and dal. Rice milling assumes the highest proportion (207 per 1,000 units) in the rice bowl district of West Godavari. It is also high in the rural areas of the coastal Andhra districts of Srikakulam, Visakhapatnam, East Godavari, Krishna, Guntur and Nellore, and in Kurnool, Hyderabad, Nizamabad and Mahbubnagar. Hyderabad city alone has 565 establishments although a considerable number of them are dal and flour mills which mainly use electricity. Krishna and Guntur have more than 200 units each in their urban areas. The urban areas of East and West Godavari, Kurnool, and Warangal districts have between 150 and 200 factories each. There are larger number of milling workshops and factories in the towns of Vijayawada, Tenali, Guntur, Kakinada, Eluru and Warangal. This industry is concentrated in the delta districts of the Andhra Region and the rice growing districts of Telengana, viz., Nizamabad, Warangal, Karimnagar and Medak. The distribution is low in the Rayalaseema districts. The most important sources of power in the milling industry are liquid fuel and electricity. The distribution of workshops and factories milling grain by use of power is as follows :

Using	Per hundred of units in	
	Rural	Urban
1 Electricity	23	74
2 Liquid fuel	62	14
3 Coal, wood and bagasse	1	1
4 Other fuels like paddy husk or groundnut shell	14	11
	100	100
5 Using no power —	64	46

The proportion of single-worker units is as high as 32 per cent in rural areas and 20 per cent in urban areas.

Minor Group 201 : Sugar industry

Though numerically small, sugar is a very important industry in the State. There are 11 sugar factories in the State of which 4 are in the rural areas. The largest is the Nizam Sugar Factory located in Shakkarnagar of Bodhan Taluk, Nizamabad district, which employs 2,000 persons per day. Of the other 10 factories, 2 are located in each of the districts of Srikakulam, Visakhapatnam, East and West Godavari and Krishna. The Deccan Sugar and Abkari Co. Ltd., in Samalkot in East Godavari District and the K.C.P. Ltd., in Vuyyur in Krishna district are important and employ more than 500 persons per day. The total employment in this industry is about 5,000 daily. All factories use electricity.

Minor Group 202 : Khandsari sugar

The industry is concentrated in the sugarcane growing districts of Visakhapatnam, Chittoor, East Godavari and Nizamabad. Nizamabad contains the two largest Khandsari mills in the State.

Minor Group 207 : Oil milling

This is numerically the tenth largest industry in the State. Since rice milling and oil milling are often done in the same mill there may have been some interchange of nomenclature in recording in the houselists. A large number of small workshops of the indigenous oil ghani type has been included in the figures, for 77 per cent of all rural oil mills and 55 per cent of all urban oil mills have been returned as using no power. 64 per cent of the rural units employ only one person, while 763 or 28 per cent employ 2-5 persons. There is not even one unit which employs 100 persons or more, although there are 4 units employing 50-99 persons. Oil milling and pressing is concentrated in Karimnagar, Visakhapatnam, East and West Godavari and Chittoor, the units themselves being small. The districts of Kurnool, Mahbubnagar, Nizamabad and Nalgonda are important for growing oil-seeds, but factories engaged in oil milling in these districts may have been returned as rice mills, since only rice milling might have been undertaken by these mills at the time of houselisting.

ISIC Major Group 21 : Beverages

Minor Group 210 : Distilleries

There are 5 units, which are all located in urban areas and use electricity. Only one unit employs 6-9 persons, the other 4 employ more than 50 persons per day. Of the 5 units, 3 are located in the 'wet' region of Telengana : The Government Power Alcohol Factory at Shakkarnagar (Nizamabad), the Government Distilleries at Kamareddy also in Nizamabad, and the Government Distilleries at Narayanguda, Hyderabad. The fourth distillery is the K.C.P. Distilleries at Vuyyur in Krishna district. The fifth distillery in Srikakulam district employs only 7 persons.

Although toddy is produced in abundant quantities in Telengana it has not been listed as an industry in the housing census, because the brewing is mostly done in the open.

Minor Group 217 : Tea

There is only one tea factory at Ghatkesar near Secunderabad in Hyderabad, rural.

ISIC Major Group 22 : Tobacco

This is numerically the ninth most important industry in the State. Variation between districts in the rural areas is very marked owing to variations in the acreage of tobacco, availability of bidi wrapping leaf etc. The highest rural concentration (546 per 1,000) obtains in Guntur which has the highest acreage (over 2 lakh acres) under tobacco. Concentrations are also found in the rural areas of Khammam, Krishna and West Godavari. The industry is evenly matched in concentration in the rural and urban areas of Nizamabad. The bidi industry is strongest in Nizamabad : 60 per cent of all rural units and about 22 per cent of all urban units are concentrated in this district. The next important districts for bidi making are Mahbubnagar and

Karimnagar. So far as urban areas are concerned, bidi manufacture is important in the towns of Chittoor, Anantapur, Kurnool, Nellore, Cuddapah and West Godavari, and to a lesser extent in the urban areas of Hyderabad, Mahbubnagar, Warangal and Adilabad. The cigar and cheroot industry is strong in Kakinada town of East Godavari and Eluru town of West Godavari. It is also found to a small extent in Srikakulam, Visakhapatnam (both rural and urban in each) and in the urban areas of Krishna, Guntur, Nellore and Warangal. The curing of virginia leaf for cigarette tobacco, which is exported to the United Kingdom and U.S.A., is largely undertaken in Guntur district, which contains 66 per cent of all such units in rural Andhra Pradesh and 71 per cent of all units in all urban areas. Guntur is followed by Krishna, Khammam, West and East Godavari districts in rural areas. There are three cigarette factories in Hyderabad city, of which one employs more than 2,000 persons daily.

ISIC Major Group 23 : Cotton

Minor Group 230 : Cotton ginning and pressing

This is mainly confined to the major cotton growing districts of the State, Kurnool, Anantapur, Adilabad and Guntur.

Minor Group 232 : Cotton spinning and weaving

There are 15 cotton spinning and weaving mills in the State, all of which run on electricity, 3 being located in rural areas and 12 in urban. The rural mills are situated in East Godavari (Pandalapaka, 2 mills), Guntur (Pedakakani, 1 mill). The urban mills are in Adoni town of Kurnool (3 mills), Kakinada (2 mills) and Rajahmundry (1 mill) of East Godavari and 1 mill each in Renigunta (Chittoor), Guntakal and Rayadrug (Anantapur), Secunderabad (Hyderabad) and Warangal (Warangal).

Minor Group 235 : Cotton weaving in handlooms

This is numerically the most important industry in the State. The most important districts from the point of view of the handloom industry are Cuddapah, Nalgonda, Karimnagar and Chittoor (both urban and rural) followed by Medak, Nellore, Warangal, Anantapur, Srikakulam and Guntur.

ISIC Major Group 24 : Jute

Minor Group 240 : Jute pressing and baling

This is confined mainly to the districts of Srikakulam and Visakhapatnam.

Minor Group 241 : Jute spinning and weaving

There are four large jute mills in the State, of which two are located in the rural areas of Nellimerla and Chittivalasa in Visakhapatnam district, and two in the towns of Eluru (West Godavari) and Guntur.

ISIC Major Group 25 : Wool

Minor Group 255 : Wool weaving in handlooms

Blankets (Kambals) are woven extensively in rural areas of the Telengana districts of Medak (575 units), Karimnagar (356 units), Mahbubnagar (184 units), Nalgonda and Nizamabad also have a fair number of establishments. Of the 1,717 units in rural areas, 68 per cent are single person units, 31 per cent employ 2-5 persons, while only 17 rural establishments employ more than 5 persons. Wool weaving is concentrated only in two urban areas. Eluru (West Godavari) which is famous for woollen carpet weaving and Makhtal Taluk of Mahbubnagar, which specializes in blankets. None of the urban units use electricity.

ISIC Major Group 26 : Silk

Minor Group 260 : Silk weaving in factories

Silk weaving in factories is predominant in the urban areas of Rayadrug and Dharmavaram taluks of Anantapur district and Peddapuram taluk of East Godavari. There are several units in rural East Godavari. The factory of Sir Silk Ltd., in Sirpur town (Kagaznagar) of

Adilabad district is a rayon weaving factory, employing over 1,400 persons per day. All the units under this group use electricity.

Minor Group 264 : Weaving of silk textile by handlooms

The bulk of the workshops under this minor group are found in Nizamabad district (Armoor taluk) where it is an urban industry, followed by Anantapur and to a small extent in East Godavari and other districts.

ISIC Major Group 27 : Miscellaneous textiles

This major group contains the sixth numerically major industry in the State. Textile garments (Minor group 273).

Minor Group 270 : Cotton carpets

This minor group is numerically not very strong. It is found in the rural areas of Karimnagar (Metpalli, Jagtial and Sultanabad taluks), Nalgonda (Ramannapet) and Medak (Siddipet) and is concentrated in the towns of Warangal, Adoni (Kurnool) and Eluru (West Godavari). No workshop uses any power.

Minor Group 273 : Making of textile garments

This minor group is widespread in every district which accounts for its numerical preponderance. The heaviest numbers are found in the rural areas of Nalgonda, Anantapur, Krishna, Cuddapah and Karimnagar districts. This industry serves as a rough index of urban prosperity for it is found in comparatively large numbers in the prosperous towns of Krishna, East Godavari, Guntur and chiefly Hyderabad city. The proportion of single person establishments in the rural areas is as high as 82·5 per cent and in the urban 51·6 per cent. The number of units using electricity in the whole State is only 5.

Minor Group 277 : Coir and coir products

The rural workshops are concentrated in the three coastal districts of Srikakulam, Visakhapatnam and East Godavari for the simple reason that they contain 80 per cent of the area under coconuts. East Godavari alone accounting for about 65 per cent of the area. Of the total of 17 units in rural areas, 12 are located in Ichchapuram taluk of Srikakulam district and 5 in the Razole and Kakinada taluks of East Godavari. The urban workshops are mainly concentrated (35 units out of 40) in Kakinada taluk of East Godavari and (remaining 5) in Anakapalli taluk of Visakhapatnam. Only one urban unit uses electricity.

ISIC Major Group 28 : Wood and wood products

Minor Group 280 : Sawing and planing of wood

Of the total of 327 workshops and factories, 74 are in rural and 253 (77 per cent) in urban areas. They are mostly located in those districts where there are large areas under forests, viz., Adilabad, East Godavari and West Godavari. 19 rural units use electricity and 23 liquid fuel. Of the workshops in urban areas, 39 are located in Hyderabad (mostly Hyderabad city), 35 in East Godavari (mainly in Rajahmundry and Kakinada), 24 each in West Godavari (Narsapur, Eluru) and Guntur (Tenali, Bapatla and Guntur), 23 in Anantapur and 20 in Kurnool district (Kurnool, Nandyal and Adoni). Electricity is extensively used, no power being used only in 38 units.

Minor Group 284 : Wooden toys

This industry, though not numerically considerable, yet occupies an important place. It is concentrated in Krishna (around Vijayawada), Chittoor (Chandragiri and Kalahasti) and the towns of Vijayawada (Krishna) and Nirmal (Adilabad).

Minor Group 289 : Manufacture of other wood and allied products

This minor group constitutes numerically the third most important industry in the State. In the rural areas, no unit works on power. The general workshops

(11,972 in number) are mainly concentrated in Nalgonda, Karimnagar and Medak, followed by Warangal, Adilabad, Khammam, Krishna and Srikakulam. The majority of the workshops (9,356 or 78 per cent) are single-worker units, while 2,535 more or 21 per cent employ 2-5 persons. The number of workshops in urban areas (1,140) is much smaller than in rural areas, but even here there are only 16 units using electricity. The urban part of the industry is concentrated mainly in East Godavari (Kakinada and Rajahmundry) and Hyderabad (Hyderabad city) and to a minor degree in Krishna (Vijayawada), Guntur (Tenali), and West Godavari (Eluru).

ISIC Major Group 29 : Paper and paper products

Minor Group 290 : Manufacture of paper

The manufacture of paper is undertaken in two large mills, one at Sirpur—Kagaznagar in Adilabad district, the other at Rajahmundry in East Godavari. There are 4 other smaller mills in the State of which the only rural unit manufactures paper board.

ISIC Major Group 30 : Printing and publishing

Minor Group 300 : Newspapers and periodicals

This industry is confined to urban areas, and that mostly in Hyderabad (14 establishments out of a total of 18). There are three establishments in Vijayawada town (Krishna) and 1 in Chittoor town (Chittoor). All units run on electricity.

Minor Group 301 : Printing and publishing of books

This is also found in the urban areas of the State. Of the 38 units in the State, 22 are located in urban areas of Hyderabad, 8 in Guntur, 4 in Krishna, 3 in Chittoor and 1 in West Godavari.

Minor Group 302 : All other types of printing

This industry, too, is mostly to be found in urban areas. Hyderabad city alone claims well over a fifth of the total number (159 or 22 per cent), followed by the urban areas of East Godavari, Guntur and Krishna. Except for Hyderabad there are few printing presses in the remaining Telengana districts. Of the total of 716 urban units in the State as few as 157 or 22 per cent use electricity. The rest work without power. There are 34 printing presses in rural areas, of which only 2 use electricity.

ISIC Major Group 31 : Leather and leather products

Minor Groups 310 and 311 : Tanning and finishing of hides, shoes and other leather footwear

It is common in rural areas to find that country tanning and cobbling go together. The Census Superintendent observes that though 784 and 114 units have been reported in the rural and urban areas of the State under minor group 310—tanning, it cannot be maintained that all of them are exclusively engaged in tanning work alone. Nor can the other minor groups 313 (leather products), 314 (shoes and other leather footwear) and 315 (repair of all other leather products) be separated to exclude each other. It is therefore more convenient to think of major group 31 as a whole, although minor group 311 has been returned as the second numerically most important industry in the State. Although the industry is fairly distributed among all districts, there is a great concentration of it in the rural areas of Nalgonda (6,062 units or 40 per cent), Karimnagar (14 per cent) and Nellore (11 per cent). There are smaller concentrations in the rural areas of Cuddapah, Warangal and Khammam. As for the share of urban areas, the leather industry is important in the urban areas of Hyderabad, Karimnagar and Visakhapatnam.

ISIC Major Group 32 : Rubber, petroleum and coal products

Minor Group 320 : Manufacture of tyres and tubes

There is no unit for the manufacture of rubber tyres and tubes. But there are

a number of workshops undertaking retreading and vulcanizing of rubber tyres. All the 143 workshops are situated in urban areas, of which 5 units use electricity. 36 per cent or 50 units are single-person establishments, 54 per cent of 74 units employ 2 to 5 persons. Most of the units are located in large cities like Hyderabad, Vijayawada and Guntur.

Minor Group 324 : Production of petroleum

The Caltex Petroleum Refinery employing 500 persons and another small installation employing 50 persons are located in Visakhapatnam town.

ISIC Major Group 33 : Chemicals and chemical products

Minor Group 331 : Paints and varnishes

The Kanakamba Paints Ltd. at Vijayawada in Krishna district and the Hyderabad Oil and Paints Ltd. in Hyderabad city are the only two large factories under this minor group.

Minor Group 332 : Fertilizers

There are 31 workshops and factories, of which 8 are in rural areas and 23 in urban. Seven out of the 8 units in rural and 20 out of 23 in urban areas use electricity. The more important factories are The Hyderabad Chemicals and Fertilizers Ltd. at Bellampalli in Adilabad district, another factory of the same management at Bodhan in Nizamabad, the Star Bone Mills in Tandur and the Alauddin Bone Mills in Hyderabad city. All the power using establishments employ more than 10 persons per day.

Minor Group 335 : Medicines, pharmaceuticals etc.

Most of the workshops under this minor group are engaged in the manufacture of ayurvedic medicines on a small scale. They are to be found, so far as rural units are concerned, mostly in the rural areas of Krishna and East Godavari. As for units in urban areas, the districts of concentration are Hyderabad, Guntur, Krishna and East Godavari.

Minor Group 336 : Soap and other washing compounds

There are 16 units in rural areas and 72 in urban. Electricity is used in only 2 rural establishments and 6 urban factories. The Vasant Soap Works near Vijayawada city in Krishna district is an important factory. 36 urban units are established in Hyderabad city alone and 7 each in the urban areas of East Godavari, Krishna and Nizamabad.

ISIC Major Group 34-35 : Non-metallic mineral products

Minor Group 340 : Bricks and tiles

The number of workshops and factories returned as engaged in brick and tile making is small : 128 in rural areas and 38 in urban. It is possible that a much larger number of brick kilns, being situated in open fields, have not been returned. Very few use electricity. The rural establishments have been returned mainly from Medak, Nalgonda, Nizamabad and East Godavari; the urban units mainly from Krishna, Hyderabad, East Godavari and Guntur.

Minor Group 341 : Cement and cement products

Manufacture of cement is one of the major industries in the State with five cement factories located at Vijayawada (Krishna), Tadepalle and Macherla (Guntur), Bethamcherla (Kurnool) and Mancheriyal (Adilabad). All cement factories use electricity and employ more than 100 persons each. The largest number of persons are employed in the Krishna cement factory at Tadepalle. Apart from the manufacture of cement, cement products like cement pipes and cement bricks are also manufactured in the State. There are 43 units in rural areas and 82 units in towns and cities.

Minor Group 342 : Lime

Lime is mainly manufactured in the districts of Nellore, East Godavari, Guntur and Hyderabad.

Minor Group 343 : Stone dressing and crushing

Stone dressing and crushing is mainly done in the rural and urban areas of Chittoor and Hyderabad and the rural areas of Kurnool and urban areas of Krishna.

Minor Group 347 : Asbestos products

The Hyderabad Asbestos Cement Company, the only factory manufacturing asbestos is located in Hyderabad city, uses electricity and employs about 400 persons per day.

Minor Group 348 : Mica

Mica splitting is done extensively in the rural and urban areas of Nellore.

ISIC Major Group 35 : Earthenware and glass

Minor Group 350 : Pottery

This is numerically the fourth most important and extensive industry in the State. There is however a concentration of potters in the Telengana districts of Nalgonda, Karimnagar, Medak and Warangal which contain 72 per cent of all rural workshops. The district of East Godavari in Andhra is also important. The Rayalaseema districts of Cuddapah, Kurnool, Anantapur and Chittoor have comparatively few potters.

Minor Groups 351 and 352 : Chinaware and porcelain

There are 9 ceramic factories in the State. 3 are rural, being located at Bhimadole of Eluru Taluk in West Godavari. Of the 6 urban units, 3 are in Hyderabad city, 2 in Nellore and 1 in East Godavari. The Government Ceramic Factory, Gundur (Nellore district) is a fairly large establishment. All factories use electricity and employ more than 10 persons each. The Deccan Porcelain and Enamel Company in Hyderabad is a major establishment.

Minor Group 353 : Glass bangles

Hyderabad city itself is a big centre for the manufacture of glass bangles.

Minor Group 357 : Glass and glass products

There are two big units. The one at Hyderabad city is called the Kohinoor Glass Works at Sanathnagar. The other is located in East Godavari district.

Minor Group 359 : Other non-metallic mineral products

The most noteworthy factory is the crucible works in Rajahmundry town of East Godavari.

ISIC Major Group 36 : Basic metals and their products

Minor Group 363 : Structural steel products

Three units have been reported, one from rural Kurnool and two from Hyderabad city. All three units use electricity.

Minor Group 364 : Iron and steel furniture

There are 19 units, all in urban areas, of which the Allwyn Metal Works in Hyderabad city is the most considerable. Of the 19 factories, 4 are in Krishna district, 3 in Guntur and 12 in Hyderabad city.

Minor Group 365 : Brass and bell metal

The distribution of workshops is as follows :

	Rural	Urban
1 Number of units ..	567	305
2 Using electricity ..	2	34
3 Using solid fuel ..	..	2

The most important rural areas are Nalgonda (Nalgonda taluk), Karimnagar (Jagtial and Metpalli), Warangal (Jangaon), Medak (Andole). The important urban centres are : Rajahmundry and Kakinada in East Godavari (73 units), Tenali in Guntur (36), Warangal in Warangal (31), Chandragiri and Kalahasti in Chittoor (26), Hyderabad city

in Hyderabad (25), Srikakulam (20), Vijayawada in Krishna (20).

Minor Group 366 : Aluminium products

This industry is concentrated in Rajahmundry town of East Godavari, Visakhapatnam, West Godavari and Krishna, and mainly turns out aluminium utensils.

Minor Group 369 : Sundry hardwares

The distribution of the characteristics of this industry is as follows :

	Number of units	Electricity	Liquid fuel	Solid fuel	No power	Other power	1-person units	2-5 persons
Rural	7,764	9	7	1	7,747	..	6,065 (78%)	1,647 (21%)
Urban	1,552	166	3	8	1,374	1	568 (37%)	722 (46%)

The rural part of the industry is concentrated in the districts of Nalgonda (Bhongir, Suryapet, Ramannapet, Devarkonda), Karimnagar (Karimnagar, Jagtial, Sultanabad, Metpalli), Medak (Siddipet, Gajwel, Andole), Warangal (Jangaon), Nizamabad (Armoor) and Adilabad (Adilabad), all of which are in Telengana. The urban part of the industry is widespread, but even this is partly concentrated in the urban areas of East Godavari (Rajahmundry and Kakinada), Krishna (Vijayawada), Hyderabad (Hyderabad city), Guntur (Guntur) and West Godavari (Narsapur).

ISIC Major Group 37 : Machinery and electrical equipment

The State has a comparatively small number of units in this major group.

Minor Group 370 : Manufacture and assembly of machinery except textile machinery

There are only ten units in this minor group, mostly concerned with repairs, in the urban areas of Guntur (6), Hyderabad (3) and East Godavari (1).

Minor Group 371 : Prime movers, boilers, etc.

All the establishments, numbering 20, are engaged in repairs. These units are located in Hyderabad, Krishna, East Godavari and Nizamabad districts.

Minor Group 372 : Machine tools

There are four units of which the Praga Tools Corporation, Hyderabad, is very important, employing over 1,200 persons daily. Three factories are located in Hyderabad city, while the fourth is in Rajahmundry.

Minor Group 373 : Textile machinery

There are two units located in Hyderabad city : the Swastik Bobbins Manufacturing Company and the Vidya Sewing Machines.

ISIC Major Group 38 : Transport equipment

Minor Group 380 : Repair of locomotives

There are three large factories of which the most notable is the Loco Carriage and Wagon Workshop in Hyderabad city employing over 3,000 persons daily.

Minor Group 381 : Other rail road equipment

The most notable factory is the Central Railway Signal and Telecommunications Workshop in Hyderabad.

Minor Group 382 : Motor vehicles

There are two units in Hyderabad city which undertake motor body building.

The biggest is the Motor Body Building Section of the Allwyn Metal Works.

Minor Group 384 : Motor car repairing

Hyderabad city is the largest centre for motor car repairing and servicing with its 226 workshops. The other important towns are Vijayawada (Krishna), Eluru (West Godavari) and Guntur (Guntur). Among the larger units are: The Andhra Pradesh State Road Transport Corporation Workshops employing nearly 700 persons, the Vehicle Sub-Depot and the Police Transport Workshops employing nearly 350 and 250 persons respectively, all in Hyderabad city; the Ramdas Motor Transport Workshops at Kakinada (East Godavari) employing 360 persons and the Nazaria Motor Transport Workshops in Nellore employing 180 persons.

Minor Group 386 : Water transport

The Hindustan Shipyard, the only ship-building concern in the country, is located in Visakhapatnam town and employs as many as 4,660 persons. The other unit in Visakhapatnam is the Port and Dock Workshops which employs nearly 450 persons. There is a third small unit at Kakinada (East Godavari).

Minor Group 387 : Air transport

The only considerable workshop is the Indian Airlines Corporation Workshop at Hyderabad city, employing over 400 persons.

Minor Group 388 : Cycle repairing

This is numerically the eleventh most important industry in the State and is spread over all districts. The most important concentrations of course are in Hyderabad city and the towns of other districts.

ISIC Major Group 39 : Miscellaneous manufacturing

Minor Group 393 : Jewellery

This is numerically the fifth most important industry in the State. The distribution of workshops in rural areas by range of employment is as follows :

	1 person	2-5 persons	6-9 persons	10-19 persons	20-49 persons
Number of units	6,356	1,457	6	5	1

Karimnagar district, famous for its filigree work, has the largest number of units (1,652) followed by Nalgonda (1,144) Medak (763) all in their rural areas. There are more gold and silversmiths in the rural areas of Telengana districts than those of Andhra districts.

The distribution of workshops in urban areas by size of employment is as follows :

	1 person	2-5 persons	6-9 persons	10-19 persons	20-49 persons
Number of units	1,543	1,589	96	15	6

The most important urban centres of gold and silver works are Hyderabad city, Vijayawada and Masulipatnam of Krishna, Eluru of West Godavari, Vizianagaram and Visakhapatnam in Visakhapatnam, Rajahmundry and Kakinada in East Godavari.

Assam

The following industries occupy high ranks in respect of number of units and employment in Assam :

Ranking of industries in Assam according to (a) number of units and (b) employment

ISIC Minor Group	Description	Units*		Employment	
		No.	Rank	No.	Rank
369	Sundry hardwares	1,227	1	4,692	3
200	Milling and husking of grain	816	2	8,299	2
217	Processing of tea in factories	611	3	69,649	1
388	Repairing of bicycles, etc.	534	4	1,419	12
393	Manufacture of jewellery	525	5	1,211	15
281	Wooden furniture and fixtures	442	6	2,782	6
384	Repairing and servicing of motor vehicles	420	7	4,443	4
205	Bread and bakery products	252	8	1,636	11
235	Cotton weaving in handlooms	196	9	1,265	14
280	Sawing and planing of wood	171	10	2,694	7
350	Earthenware and pottery	166	11	662	18
365	Brass and bell-metal products	121	12	480	20
302	All other types of printing, etc.	97	13	857	17
336	Soap and other washing compounds	90	14	484	19
370	Machinery except electrical	74	15	1,041	16
340	Bricks, tiles, etc.	50	16	1,716	10
285	Veneer and plywood	17	17	1,842	9
380	Assembly and repairing of locomotives	12	18	2,692	8
334	Matches	4	19	1,385	13
324	Petroleum and kerosene	2	20	2,800	5

*Excluding unclassified units for which size of employment is not available.

Both the number of units and the number of persons employed compare favourably with the State's total population. What is more, Assam has a fair share of modern industries and modern skills, the more notable of which are production of petroleum and kerosene, mining and quarrying (not included in above list), manufacture of tea, repairing and servicing of locomotives, motor vehicles and cycles, production of matches, veneer and plywood, sawing and planing of wood, etc. Still more remarkable is the fact that manufacture of sundry hardware takes precedence over milling and husking of grain, which indicates a high degree of production and servicing of iron and steel implements both for cultivation of grain and tea. As is to be expected in Assam, processing of tea employs more persons than milling and husking of grain, although it is possible that much milling and husking goes on at purely domestic levels. Repairing and servicing of motor vehicles is the fourth largest employer of labour in Assam, the State having the finest network of roads in Northeastern and even Northern India, not excluding even the Punjab.

ISIC Minor Group 200 : Milling and husking of grain (mainly paddy)

This is to be found in all districts in substantial numbers except in the Garo Hills, the United Khasi and Jaintia Hills, United Mikir and North Cachar Hills and Mizo Hills where not much rice is grown and, even if it is, is not milled or husked on any extensive scale in workshops for sale. There are 869 rice mills scattered mostly over the plains, many of which have also facilities for pressing mustard seed. The combination of rice and oil mill is generally resorted to by millers because it is more productive and profitable for the owners. There are no less than 11 big rice mills in Hojai of Nowgong district. There are three modern flour mills in Assam of which two are in Gauhati and one at Sibsagar. The rice and oil mills mostly use diesel oil for fuel and also small quantities of husk.

ISIC Minor Group 217 : Processing of tea

This minor group is the largest employer of labour. There are as many as 611 factories where tea is processed and manufactured, mostly in the districts of Goalpara, Kamrup, Darrang, Lakhimpur, Nowgong, United Mikir and North Cachar Hills, Sibsagar and Cachar. The tea factories mostly use solid fuel like coal, wood, bagasse, etc. Some use diesel oil but only a very few use electricity.

ISIC Minor Group 235 : Cotton weaving in handlooms

Handlooms are extensive in Assam, *particularly in the hill districts.* They are almost as ubiquitous in the plains. Most of the production is intended for domestic consumption. It is the ninth largest industry in point of workshops and the fourteenth largest in point of employment, where most of the production is intended for sale. The industry seems to have been under-reported from Goalpara, Kamrup, Gauhati city, Darrang, Lakhimpur, Dibrugarh, Garo Hills, United Khasi and Jaintia Hills, Shillong United Mikir and North Cachar Hills, Sibsagar and Mizo Hills from which no unit has been returned. It is possible that a substantial number of the 4,328 workshops and factories for which details are not available may have been devoted to cotton and handloom weaving, being conducted mainly in dwelling-cum-workshops.

ISIC Minor Group 240 : Jute pressing and baling

Assam produces a great quantity of jute. But there are no jute mills. There are 27 factories where jute is pressed and baled before being exported to Calcutta.

ISIC Minor Group 280 : Sawing and planing of wood

This is the tenth largest industry in Assam in point of number of factories and the seventh in point of employment. All the 171 units reported are medium and large units.

ISIC Minor Group 281 : Wooden furniture and fixtures

This industry is reported as containing medium and even large sized units from Goalpara, Gauhati city, Darrang, United Khasi and Jaintia Hills, Shillong town and Sibsagar. In the other districts the workshops are mostly small.

ISIC Minor Group 285 : Manufacture of veneer and plywood

All the workshops and factories are large employers of labour. The factories are mainly located in Lakhimpur.

ISIC Minor Group 302 : Miscellaneous types of printing

Apart from a concentration of as many as 15 printing presses in Shillong town, the capital of Assam, we have several units of small and medium employment size in most districts.

ISIC Minor Group 324 : Production of petroleum, kerosene and other petroleum products in refineries

Oil was struck in Assam as early as the nineteenth century and the Digboi refinery alone of Assam Oil Company at Digboi, Lakhimpur, not counting the population working at oil wells and pumping stations, employs 2,500 persons. Another refinery has been set up at Nunmati in the suburbs of Gauhati to refine the oil mined at Naharkatiya and Moran. At the houselisting stage in 1960, Nunmati was in the process of being set up and employed only 300 persons.

ISIC Minor Group 334 : Manufacture of matches

Of the 4 match factories employing as many as 1,385 persons, the biggest, employing 1,165 persons, is situated at Dhubri town of Goalpara district. The abundance of simul trees, the wood of which is ideal for match sticks, favour match factories—large simul logs are floated down the Brahmaputra and its

tributaries to Dhubri. The factories get their wax, so important for the match industry, from the Assam Oil Company at Digboi. This explains why the match factory was set up so long ago at Dhubri in spite of Assam's general industrial backwardness at that time.

ISIC Minor Group 336 : Soap and other washing compounds

Most of the workshops are small and medium units.

ISIC Minor Group 340 : Manufacture of bricks and tiles

Brickfields, which provide much employment are scattered throughout the State. Bricks are also extensively used for road-building.

ISIC Minor Group 350 : Earthenware and earthen pottery

These are mostly single worker and 2-5 worker establishments scattered throughout the State.

ISIC Minor Group 365 : Brass and bell-metal products

These are mostly small units employing up to 5 persons and are chiefly found in Goalpara, Kamrup, Darrang, Lakhimpur, Sibsagar and Cachar. Assam is famous for its particular brand of bell-metal, the best products of which are turned out in Santherbari.

ISIC Minor Group 369 : Sundry hardwares

The ordinary blacksmith's shop is widely prevalent in Assam. There is also great demand for fencing material in tea gardens. An iron industry for turning out fencing material has been set up in Tinsukia town of Lakhimpur. This parent industry, called Steelworth, has set up subsidiary factories in Tezpur town and in the vicinity of Gauhati. There is also a steel re-rolling mill near Gauhati which has been recently established owing to the demand of iron materials in Assam. This industry is widely distributed over Goalpara, Kamrup, Gauhati, Darrang, Lakhimpur, Garo Hills, United Khasi and Jaintia Hills, Nowgong, Sibsagar and Mizo Hills.

ISIC Minor Group 370 : Manufacture of machinery except textile machinery

Details are not available of the precise types of machinery turned out in these workshops and factories.

ISIC Minor Group 380 : Assembly and repair of locomotives

There are locomotive workshops for repairs of locomotives in all important railway centres (12) of Assam. Nowgong alone has 3 centres employing as many as 1,436 persons.

ISIC Minor Group 384 : Repairing and servicing of motor vehicles

These are located mostly in the towns. Gauhati has as many as 38 workshops employing 926 persons, Darrang 48 employing 319, Dibrugarh 34 employing 284, United Khasi and Jaintia Hills 29 employing 609 (Shillong alone has 21 employing 557 persons). Mizo Hills has small units : there are 42 workshops employing 99 persons.

ISIC Minor Group 388 : Repairing of bicycles

This industry is very extensive in the plains districts of Goalpara, Kamrup, Gauhati, Darrang, Lakhimpur, Nowgong, United Mikir and North Cachar Hills, Sibsagar and Cachar. A cycle factory has been recently established in Gauhati which produces about 100 cycles every day.

ISIC Minor Group 393 : Jewellery

This is extensive throughout the State and is found in small units in all districts except Mizo Hills.

Bihar

Although Bihar has returned as many as 240,768 workshops and factories, which amounts to about a tenth (10·3 per cent) of the total number in India, the bulk of them are small and equipped to deal with purely local needs. This is also evident from the rural-urban distribution, although it is heartening that urban areas have proportionately more of workshops and factories than rural areas.

Distribution of workshops and factories

	Number	Percentage to total	Percentage of rural-urban population
Total	240,768	100	100·00
Rural	199,854	83	91·57
Urban	40,914	17	8·43

The district of Darbhanga has the highest number of workshops and factories (36,396) of which 92 per cent are in villages. Shahabad (16,969), Saran (16,247) and Gaya (15,975) follow with 82, 88 and 77 per cent of their workshops and factories in villages. All other districts of Bihar, except Saharsa (4,201), Dhanbad (4,262) and Singhbhum (8,325), have between 10,000 and 15,000 workshops and factories. It is curious that the two most highly industrial districts of Bihar, Dhanbad and Singhbhum, should have so few workshops and factories. This seems to suggest that the type of consumer goods that workshops in Bihar produce do not satisfy the needs and aspirations of the industrial worker on whom the revolution of rising expectations has begun to work. It is also probable that there has been a certain degree of flight of traditional skills from rural crafts toward industrial employment. It also suggests, as will be seen elsewhere, that factory made consumer goods imported from outside these districts are squeezing out of existence the rural workshops that used to produce their indigenous substitutes. Patna, which contains the capital of Bihar, has the lowest proportion (57 of workshops situated in the rural areas of the district) followed by Dhanbad (60 per cent), Bhagalpur (67 per cent) and Singhbhum (70 per cent). The fact that all these districts have very heavy rural populations underlines the significance of the concentration of small and big industrial establishments in their urban areas. At the other end of the scale are the districts of Santal Parganas, Palamau and Darbhanga which have 95, 94 and 92 per cent of their industrial establishments concentrated in rural areas which more or less corresponds to the proportion of the rural populations of these districts. The remaining districts have between 80 and 88 per cent of their industrial establishments concentrated in rural areas, the proportion of rural population in each being much higher. The relationship between the proportion of rural population and concentration of industrial establishments in rural areas in the districts of Bihar will appear from the following table :

Proportion of rural population and concentration of industrial establishments in the rural areas of Bihar districts

District	Rural population as percentage of total population	Rural industrial establishments as percentage of all establishments
Bihar	**91.6**	**83·0**
Patna	79·9	56·7
Gaya	92·7	77·4
Shahabad	92·8	81·5
Saran	95·8	87·6
Champaran	95·2	87·1
Muzaffarpur	95·4	84·5
Darbhanga	95·7	91·9
Monghyr	88·9	71·8
Bhagalpur	89·1	67·0
Saharsa	96·1	85·7
Purnea	94·0	85·9
Santal Parganas ..	94·7	94·9
Palamau	95·3	94·3
Hazaribagh	91·6	85·5
Ranchi	90·5	86·0
Dhanbad	75·0	59·9
Singhbhum	78·5	69·9

The high absolute figures of the industrial establishments will cause disappointment when it is remembered that the majority of them are concerned with milling and husking of gram, oil crushing, sweetmeat and confectionery, toddy tapping, bidi-making, khadi spinning, handloom weaving, tailoring, carpentry, bamboo and caneware, shoe-making, mica splitting, pottery, blacksmithy, jewellery and cycle repairing. For example nearly 25,000 out of Darbhanga's 36,396 establishments are concerned with khadi and handloom.

Of the 14 cities and towns of above 50,000 population each, although Patna has the large number of establishments (3,548), Bhagalpur (2,802) has the largest number of workshops and factories (110) per 1,000 census houses on account of the concentration of silk weaving in the town itself. This is followed by Darbhanga (1,290 establishments and 73 per 1,000) largely because of the handloom industry. Gaya (2,128 and 62 per 1,000) and Bihar (1,010 and 62 per 1,000) have greater variety in their establishments. Some of the lowest proportions are found, paradoxically enough, in the cities of Jamshedpur (24 per 1,000), Katihar (28), Dhanbad (29) and Ranchi (44) noted for their concentrations of modern industries. The remaining cities and towns, Monghyr (44), Muzaffarpur (45), Jamalpur (49), Patna (52), Chapra (54) and Arrah (56) have more of establishments devoted to traditional crafts than more industries.

Use of power

The following table shows the distribution of industrial establishments by the kind of power used :

Distribution of industries by kind of power used

		Number of establishments by kind of power used					
		Total	Electricity	Liquid fuel	Solid fuel	Other power	No power
1 Number of units	Total	240,768	6,310	3,443	62,745	31,299	136,971
	Rural	199,854	2,386	2,692	46,764	29,537	118,475
	Urban	40,914	3,924	751	15,981	1,762	18,496
2 Percentage to total	Total	100·00	2·6	1·4	26·1	13·0	56·9
	Rural (83)	100·00	1·2	1·3	23·4	14·8	59·3
	Urban (17)	100·00	9·6	1·8	39·1	4·3	45·2

The table shows that 57 per cent of all establishments in Bihar use no power at all and this proportion is quite high (45) even in the urban areas. Of all kinds of power used solid fuel (coal, wood, bagasse) is the next highest in proportion (26), followed by other kinds of power including draft animals in village oil mills (13). Electricity commands a very low position in rural areas, being just over 2 per cent of all establishments in villages, while in urban areas, electricity is used in only just under 10 per cent of all urban establishments.

Darbhanga (30,461 units), Santal Parganas (14,172 units) and Hazaribagh district (9,255 units) have the highest number of establishments working on no power. Darbhanga accounts for 22 per cent of all industries in this category in Bihar. Among districts using solid fuel in appreciable quantities, Patna, Gaya, Shahabad and Saran lead with more than 5,000 units each, followed by Muzaffarpur, Champaran and Monghyr, each with between 4 and 5,000 units each. Among districts having establishments using other kinds of power, which are almost entirely confined to rural areas, Santal Parganas and Shahabad lead with 3,937 and 3,145 units respectively. The districts in which the largest numbers of establishments use electricity are Patna, Gaya and Shahabad, although the districts most important for the most effective use of electricity are Singhbhum and Dhanbad. Liquid fuel is least used and,

further, its use is mostly confined to urban areas. Among its notable users are the districts of Darbhanga, Champaran, Saran and Purnea, all in North Bihar.

Power is used to a limited extent even in the urban areas. About 84 per cent of all urban units of Darbhanga district use no power at all. Much of the urban units of the districts of Bhagalpur (71), Santal Parganas (64), Hazaribagh (63), Purnea (62), Palamau (61), Ranchi (51) and Saharsa (50) do not use power either. Of the districts in which more than 50 per cent of the units use power of some kind, the kind of power most commonly used is solid fuel (coal, wood and bagasse) and other power. The only districts where electricity is used in more than 50 per 1,000 of all urban units are Dhanbad (107), Patna (89) and Singhbhum (56).

Even in cities and towns above 50,000 the use of power is limited. No power is predominant in Bhagalpur (76·2), Bihar (60·0), Darbhanga (51·2) and Gaya (50·2) but is never less than 30 per cent in any of the 11 cities and towns. Solid fuel is the most important source of power in as many as six towns, viz., Arrah, Muzaffarpur, Chapra, Monghyr, Katihar and Dhanbad. Gaya, incidentally, has the largest number of units (679) working on solid fuel although the proportion of this number to the total number of units is a little over 30 per cent. Electricity occupies the third place. Its use is most in evidence in Dhanbad (28·5 per cent) followed by Ranchi (26·2) Patna (14.8) and Jamshedpur (15). Liquid fuel has very little place except in Darbhanga (9·3 per cent) alone of all the 14 cities and towns.

Size of employment

The numerousness of establishments but the low use of power is explained by the distribution of the size of employment in the workshops and factories of the State. The following table gives the distribution of workshops and factories in Bihar by size of employment:

Distribution of workshops and factories in Bihar by size of employment

	Total	Size of employment						
		1 person	2-5	6-9	10-19	20-49	50-99	100+
Number	240,768	132,049	99,663	7,453			1,603	
Percentage ..	100·00	54·8	41·4	3·1			0·7	

Where as much as 96·2 per cent of the workshops and factories are manned by up to 5 persons, 55 per cent by single workers and 41·4 per cent by 2-5 workers, the use of power, especially electricity, is bound to be extremely limited in the circumstances of Bihar's economic condition.

In single-worker establishments, which are the singular predominant pattern of this State (54·8 per cent), Darbhanga leads both in absolute numbers (25,268) and proportion (69·4 per cent), the districts following next in proportion being Palamau (67·5), Muzaffarpur (64·0), Champaran (62·4) and Saran (60·9). The districts with some of the lowest proportions are: Dhanbad (48·2), Patna (43·2), Bhagalpur (39·3) and Singhbhum (39·0). Khadi spinning seems to form a large component wherever the single-worker ratio is high.

In 2-5 worker establishments, which come a long way behind (41·4 per cent) the single-worker units, Santal Parganas leads (58·5 per cent) followed by Patna (51·0), Singhbhum (49·4), Gaya (44·9), Shahabad and Dhanbad (44·7 each). Although Darbhanga has as many as 10,502 units in the 2-5 worker category following behind Santal Parganas (12,920 units) in this respect, the proportion (34·4) is much less than Santal Parganas' because of the predominance of the single-worker establishment in the former. This category is most common in cities and towns above 50,000 except in Chapra, Muzaffarpur and Katihar towns.

There is a steep drop in all districts in the number of workshops and factories

employing 6-9 persons. While the percentage for Bihar as a whole is no more than 2·1, only 8 districts exceed 2 per cent. These are Patna (2·9), Saran (3·2), Monghyr (2·4), Bhagalpur (4·1), Purnea (2·2), Hazaribagh (2·7), Dhanbad (2·9) and Singhbhum (4·1).

The proportion of establishments using 10-19 persons exceeds one per cent only in the districts of Singhbhum (3·5), Monghyr and Dhanbad (2·2 each), Hazaribagh (2·1), Patna (1·7) and Bhagalpur (1·5).

In the employment range of 20-49 persons Singhbhum district leads with 3·2 per cent of all workshops and factories in this category, followed by Dhanbad (1·2), Patna and Hazaribagh (0·9 each), Monghyr (0·8) and Bhagalpur (0·6). All other districts have less than one-half per cent each.

In the range 50-99 Singhbhum leads with 4 units per 1,000, followed by Dhanbad, Patna, Monghyr, Saharsa and Hazaribagh (2 each). Saran, Darbhanga and Palamau have negligible proportions, while the remaining districts have about 1 in 1,000.

In the range 100 and over the only districts which have a proportion of more than 1 in 1,000 are Dhanbad (6), Singhbhum (4), Hazaribagh (4) and Santal Parganas (2). Patna, Gaya, Shahabad and Ranchi have 1 in 1,000 each while the remaining districts have negligible proportions.

Distribution by nature of industry

The industries which are numerically the most important in Bihar in respect of number of workshops and factories devoted to them are the following. The districts in which each such industry is proportionally high are mentioned against each.

Rank	ISIC Minor Group	Industries in order of importance of number of workshops and factories devoted to them. Brief description	Proportion per 1,000 of all workshops and factories	Districts in which proportionally important
1	2	3	4	5
1	235	Cotton weaving in handlooms ..	128	Santal Parganas, Bhagalpur, Darbhanga, Ranchi, Gaya, Saran, Purnea.
2	350	Earthenware and earthen pottery ..	112	Santal Parganas, Gaya, Hazaribagh, Ranchi, Monghyr, Shahabad, Palamau.
3	209	Production of other food products such as sweetmeat, condiments, *muri, murki, chira* etc.	95	Saran, Shahabad, Monghyr, Patna, Gaya.
4	231	Khadi spinning	91	Darbhanga, Monghyr, Bhagalpur, Purnea, Palamau, Saran, Gaya.
5	369	Blacksmithy	88	Ranchi, Gaya, Shahabad, Champaran, Saran, Muzaffarpur.
6	207	Oil crushing	68	Saran, Champaran, Purnea, Palamau, Muzaffarpur, Darbhanga.
7	273	Tailoring	67	Patna, Shahabad, Purnea, Champaran, Muzaffarpur, Gaya.
8	288	Bamboo and cane work	48	Santal Parganas, Purnea, Palamau, Ranchi, Singhbhum, Bhagalpur, Monghyr.
9	393	Jewellery	44	Shahabad, Gaya, Saran, Champaran, Muzaffarpur, Darbhanga, Monghyr.
10	281, 283, 289	Carpentry	38	Gaya, Shahabad, Darbhanga, Monghyr, Purnea.
11	220	Bidi making	31	Patna, Monghyr, Gaya, Shahabad, Singhbhum.
12	200	Rice milling etc.	29	Patna, Gaya, Shahabad.
13	311	Shoe making	27	Palamau, Shahabad, Gaya, Patna Monghyr.
14	348	Mica splitting	20	Hazaribagh.
15	388	Cycle repairing	14	Saran, Muzaffarpur, Patna, Gaya, Shahabad.
16	212	Toddy tapping	11	Muzaffarpur, Patna, Darbhanga.

ISIC Major Group 20 : Foodstuffs

Numerically this major group which accounts for 48,418 units or 20·1 per cent of the total number of workshops and factories, comes next to major group 23—Cotton textiles—which constitutes 22·8 per cent.

While milling and husking of foodgrains (Minor Group 200) obtains in all districts, Patna, Shahabad and Gaya have more establishments. Sugar mills (Minor Group 201) are located in Saran (10), Champaran (9), Darbhanga (5), Muzaffarpur (3), Gaya, Shahabad, Bhagalpur (2 each) and Patna (1). Other districts have none. Of the total of 34, 22 are located in rural areas. In the production of indigenous sugar (Minor Group 202), Darbhanga claims the highest number of establishments. The milling of oil in indigenous or powered oil presses (Minor Group 207) claims 16,347 units or 6·8 per cent of all workshops and factories in Bihar. Saran district has the largest number, followed by Champaran, Purnea, Palamau, Muzaffarpur and Darbhanga. The making of other food products such as sweetmeat, condiments, muri, chira etc. (Minor Group 209), ranks third in the State as an industry and accounts for 22,825 units or 9·5 per cent of all establishments. Saran has the maximum numbers, followed by Shahabad. This is presumably because of Bhansari shops which make and sell satu, so popular in these two districts. Monghyr, Patna and Gaya also are important. Gaya is well-known for its penda and tilkoot, Deoghar for its penda.

ISIC Major Group 21 : Beverages

There are 2,836 units in this major group accounting for 1·2 per cent of all workshops and factories. In minor group 210 (distilled spirits) the number of units is very small. They are located in Santal Parganas, Saran, Shahabad, Champaran, Darbhanga, Hazaribagh, Ranchi and Dhanbad. Minor Group 211 (country liquor) has been reported from Singhbhum, Ranchi, Palamau, Dhanbad, Santal Parganas and Hazaribagh. Minor group 212 (indigenous liquor like toddy, mahuva etc.) has been reported mainly from Muzaffarpur, Darbhanga, Patna, Saran, Gaya, Monghyr and Champaran.

ISIC Major Group 22 : Tobacco

This claims 7,336 units in all or 3·1 per cent of all workshops and factories. Bidi making (Minor Group 220) is mainly done in Monghyr, Patna, Shahabad, Gaya, Singhbhum, Darbhanga and Muzaffarpur. There is a cigarette factory (Minor Group 222) in Monghyr, Hookah tobacco (Minor Group 223) is manufactured mainly in Muzaffarpur, followed by Purnea, Gaya, Darbhanga, Saran and Patna.

ISIC Major Group 23 : Cotton textiles

This is the most important major group from the point of view of number of units. It claims 54,850 units in all or 22·8 per cent of the total number of workshops and factories in Bihar. Minor groups 231 and 235 are the major contributors. Minor group 231 (cotton spinning other than in mills) is concentrated in Darbhanga (Madhubani town, Pandaul and Madhepur anchals). Cotton weaving in handlooms (235) which constitutes 12·8 per cent of the total number of workshops and factories in Bihar, is easily the largest single minor group. It is found in all districts, the most notable, numerically, being Santal Parganas, Bhagalpur, Darbhanga and Ranchi. There are 85 anchals/towns in the State having a strength of 100 units or more in this category.

ISIC Major Group 24 : Jute textiles

This industry in all its minor groups is mainly confined to the districts of Saharsa, Saran, Purnea, Monghyr, Champaran, Muzaffarpur, Darbhanga and Gaya.

ISIC Major Group 25 : Wool

This major group is numerically more important than jute. The most important minor group is 255, wool weaving in handlooms which obtains mainly in

Shahabad, Gaya and Palamau. Woolweaving in powerlooms obtains (Minor Group 254) mainly in Palamau and Bhagalpur.

ISIC Major Group 26 : Silk

Spinning of silk other than in mills (Minor Group 252) is the most important sector of this major group and is mainly confined to Bhagalpur and Santal Parganas. Weaving of silk in handlooms (Minor Group 264) is found mainly in Bhagalpur and Gaya and to a minor extent in Santal Parganas and Patna.

ISIC Major Group 27 : Miscellaneous textiles

Minor Group 273 (tailoring) is common to all districts but numerous in Patna, Shahabad, Gaya, Purnea and Champaran.

ISIC Major Group 28 : Wood and wood products

This major group accounts for 24,401 establishments, comprising 10·1 per cent of all workshops and factories. The major number is claimed by minor group 288 (cane and bamboo ware) mainly found in Santal Parganas, Purnea, Ranchi and Palamau. Minor Group 284 (other wooden products such as utensils, toys, artware) accounts for 303 units and is concentrated mainly in Saran (53), Patna (46), Bhagalpur (31) and Shahabad (27).

ISIC Major Group 29 : Paper and paper products

Only 2 units were returned in Minor Group 290, one in Shahabad and the other in Muzaffarpur. Both use electrical power, one employing 50-99 persons, the other more than 100.

ISIC Major Group 30 : Printing and publishing

It is possible that some omissions may have occurred. Establishments under minor group 300 (printing and publishing of newspapers and periodicals) were mainly returned from Patna followed by Gaya and Ranchi. In minor group 302 (all other types of printing including lithography, engraving, etching, block-making, etc.), Muzaffarpur takes the lead, followed by Monghyr. In minor group 302 (binding, stitching, sizing, etc.) Patna leads.

ISIC Major Group 31 : Leather and leather products

There are 7,885 units in this major group comprising 3·3 per cent of the total number of workshops and factories in Bihar. The major concentrations of tanning are in the districts of Darbhanga, Shahabad, Purnea and Gaya. The majority of the tanneries use no power, a little less than a third use solid fuel; only 2 units use electricity. The Bata Tannery and Shoe factory in Mokameh Anchal of Patna district employs more than 100 persons. Shoe-makers and shoe repairers are very much in evidence in the rural areas of Bihar, particularly in the districts of Palamau, Shahabad, Gaya and Patna.

ISIC Major Group 32 : Rubber, petroleum and coal products

It is likely that omissions have occurred under this major group. Minor group 320, which probably includes repairs, occurs, very understandably, most in Dhanbad and Singhbhum, although it is spread over most districts. There are no units in minor groups 322 and 324.

ISIC Major Group 33 : Chemicals and chemical products

Minor Group 330, basic industrial chemicals such as acids, alkalis and their salts, have naturally only a handful of factories, of which 2 are in Patna and 2 in Jamshedpur of Singhbhum. Minor group 332 (fertilizers) have been returned in small numbers from Shahabad (4 units), Dhanbad (3 units) and Hazaribagh (2 units). Of these 7, three are single worker establishments and must be mixers and salesmen. The Sindri Fertilizer Factory in Dhanbad is the only large-scale factory in the State. In minor group 333, most of the establishments

returned are single-worker units and produce fireworks. The Gumia Explosives Factory at Hazaribagh alone employs more than 100 workers. There are only 4 units engaged in the manufacture of matches (Minor Group 334), of which 3 lie in Patna and 1 in Purnea. There is 1 unit in Bihar Anchal of Patna using electricity and employing 20-49 persons. Minor group 335 (medicines, pharmaceutical preparations, perfumes etc.) claims 305 units, of which 166 lie in urban areas. All districts are represented in this minor group, although the more important districts are Patna, Shahabad, Monghyr, Muzaffarpur and Singhbhum. Most of the establishments seem to be given to the manufacture of drugs and medicines of vaids and hakims. There is only one unit in Patna using electricity and employing more than 100 persons. Manufacture of soap and other washing compounds (Minor Group 336) are concentrated in Singhbhum (30 units), Dhanbad (27) and Patna (23). There are only 9 units engaged in the manufacture of turpentine, synthetic resin etc. (Minor Group 337), of which 3 each are in Muzaffarpur and Dhanbad and one each in Shahabad, Darbhanga and Monghyr. There are still some establishments working on the recovery of saltpetre by boiling a kind of local earth with the help of Nonias, in the districts of Saran (24 units) and Muzaffarpur (16 units). Minor Group 339 mainly refers to candle making which obtains in Patna, Shahabad, Darbhanga, Hazaribagh and Singhbhum districts.

ISIC Major Group 34-35 : Non-metallic mineral products

This major group includes manufacture of non-metallic mineral products such as bricks, tiles, cement, cement products, lime, earthenware and earthen pottery, chinaware and crockery, glass bangles and beads, earthen toys etc. It occupies the third place in the State in order of numerical importance. There are, in all, 33,366 workshops and factories comprising 13·8 per cent of the total number.

It is possible that a certain proportion of workshops and factories engaged in the manufacture of bricks, tiles etc. (Minor Group 340) may have escaped enumeration. Patna has the largest number (181) of workshops and factories, followed by Shahabad (145) and Gaya (112). The figures are generally low in other districts except Bhagalpur and Monghyr (84 each), Saran (68) and Singhbhum (57). All registered workshops and factories (19) in minor group 341 (cement and cement products) are engaged in cast cement articles, spun pipes and poles, R.C.C. Pipes etc. Workshops concerned with the manufacture of lime are mostly located in Shahabad, Ranchi, Champaran, and Hazaribagh. Patna, Monghyr and Singhbhum have one each. The more important ones using electricity and employing more than 100 workers are in Shahabad and Singhbhum. There are 172 units engaged in the manufacture of structural stone goods, stone dressing and stone crushing (Minor Group 343). The district of Santal Parganas, famous for its Palm chips, has the largest number (65), followed by Singhbhum (64), Ranchi (14) and Gaya (10).

Minor group 348 (manufaoture of mica products) has recorded 4,820 units, almost all of which are concentrated in Hazaribagh district. Most of the units refer to mica splitting which is carried on extensively in Hazaribagh in and around Kodarma region. 42 units employ 100 persons or more and 26 units 50-99 persons each. The distribution of mica splitting factories among anchals and towns near Kodarma is as follows :

	Total	Rural	Urban
Kodarma ..	487	108	379
Deori ..	3,454	3,454	..
Giridih Town	274	..	274
Tisri ..	337	337	..
Total	**4,552**	**3,899**	**653**

Manufacture of earthenware and earthen pottery (Minor Group 350) has 27,037 workshops and factories comprising 11·2 per cent of the total number

of units in Bihar. It ranks next to handloom industry. All except 1,314 units are located in rural areas and are well spread out over most districts. All the same, Santal Parganas leads with 3,882 units, followed by Gaya (2,294), Hazaribagh (2,083) and Monghyr (2,046). The bulk of them however are very small village potteries. There are two workshops in Bishnupur Anchal of Ranchi employing 100 persons or more. There are 35 workshops turning out chinaware and crockery (Minor Group 351), most of which are located in Singhbhum (21), Ranchi (4), Dhanbad (3), Santal Parganas (2) and Bhagalpur (2).

ISIC Major Group 36 : Basic metals and their products except machinery and transport equipment

The number of units in this major group is 22,552 accounting for 9·4 per cent of the total number of workshops and factories. Of these 21,047 workshops or more than 93 per cent are blacksmith shops (Minor Group 369). Blacksmithies comprise 8·8 per cent of all workshops and factories and occupies the fifth place in order of numerical importance. Every district is well represented in this minor group, although Ranchi has the largest number, followed by Gaya and Shahabad. Only 218 workshops use electricity of which only 19 employ more than 100 persons. Brass and bell metal (Minor Group 365) are also important. There is a large factory of brass and bell metal in Musabani town of Singhbhum district using electricity and employing more than 100 persons. Tinsmithy (Minor Group 367) is also fairly common. As for enamelling, galvanising, plating etc. (Minor Group 368) there are only 76 units in the whole State, of which a fair number are located in Patna, Dhanbad, Ranchi and Singhbhum districts. The largest unit occurs in Seraikella Anchal of Singhbhum district which uses electricity and employs more than 100 persons. Monghyr, once famous for its firearms and guns, has still the largest number (20) of gun repair shops in the State (Minor Group 362). In the manufacture of aluminium and aluminium products (Minor Group 366) Muri in Ranchi and Jamshedpur in Singhbhum has the largest factories.

ISIC Minor Group	Description	Number		
		Total	Rural	Urban
384	Repairing and servicing of motor vehicles	616	66	550
388	Repairing of bicycles and tricycles	3,352	1,558	1,794

Shri Prasad has observed how the number of motor-repairing workshops is positively related to the number of motor vehicles registered in the districts of Dhanbad, Singhbhum, Patna, Ranchi and Hazaribagh.

ISIC Major Group 37 : Machinery and electrical equipment

This major group has 365 units in all, most of which are repair shops, e.g. those in minor group 378 (radio, microphone, etc.). There are small number of workshops and factories in each of the minor groups 370-373. No unit has been returned under Minor Group 374 (manufacture of heavy electrical machinery and equipment, e.g., motors, generators, transformers) or minor group 376 (manufacture of insulated wires and cables).

ISIC Major Group 38 : Transport equipment

The distribution among minor groups is as follows :

ISIC Major Group 39 : Miscellaneous manufactures

The most important industry in this major group is manufacture of jewellery, silverware etc. in Minor Group 393,

which accounts for 10,630 workshops out of a total of 13,029 in the entire major group, thus contributing about 4·4 per cent of workshops and factories in Bihar.

Gujarat

The following statement gives the important industries of the State in descending order of number of establishments for the State as a whole and show their respective rankings in the first 27 industries in rural and urban areas and also by number of persons employed:

Rank	ISIC Minor Group	Description	Total number of units	Rural Areas		Urban Areas		Rank in total employment
				Units	Rank	Units	Rank	
1	2	3	4	5	6	7	8	9
1	273	Textile garments	14,256	5,385	1	8,871	1	2
2	200	Milling of cereals	7,650	4,790	2	2,860	3	3
3	393	Jewellery	7,051	2,071	7	4,980	2	5
4	369	Sundry hardwares	6,772	4,333	4	2,439	5	4
5	289	Other wood and allied products	5,387	4,530	3	857	13	8
6	311	Shoes and other leather footwear	5,001	2,376	5	2,625	4	10
7	235	Cotton weaving in handlooms	3,091	1,482	8	1,609	9	13
8	350	Earthenware and pottery	2,737	2,267	6	470	20	16
9	209	Other food products ..	2,529	751	12	1,778	7	15
10	388	Repairing of bicycles and tricycles	2,110	223	15	1,887	6	23
11	281	Wooden furniture and fixtures	1,897	999	10	898	12	19
12	234	Cotton weaving in powerlooms	1,848	107	23	1,741	8	6
13	220	Bidi	1,843	1,035	9	808	15	7
14	207	Edible fats and oils ..	1,797	953	11	844	14	11
	232	Cotton spinning and weaving in mills						1
15	370	Manufacture and assembling of machinery except textile machinery ..	1,284	116	21	1,168	11	9
16	230	Cotton ginning, cleaning, pressing and baling ..	402	164	17			12

ISIC Major Group 20 : Foodstuffs

Minor group 200 (Milling of cereals) occupies the second place in order of number of units engaged in this activity (second place in rural and third in urban) and the third place in order of number of persons employed. The next important minor group is 209 (other food products), which occupies the ninth place in numerical order of units and fifteenth in point of employment. The third important minor group is 207 (edible fats and oils) which occupies the fourteenth place in point of number of units and the eleventh in point of employment. The major group is more or less evenly distributed throughout the State, the rural areas of Rajkot, Surendranagar, Sabarkantha, Ahmedabad, Baroda and Broach being more numerous than the rest. In minor group 200 rural Sabarkantha and Broach are more important than others, and in minor group 207 Bhavnagar, Sabarkantha and Panchmahals. In minor group 209 rural the more important districts are Jamnagar, Surendranagar, Amreli, Kutch, Baroda and the urban areas of Amreli, Kutch, Banaskantha and Sabarkantha.

ISIC Major Group 21 : Beverages

This major group is of minor consequence in the State.

ISIC Major Group 22 : Tobacco products

The production of bidi is the thirteenth numerically most important industry in

the State and the seventh in point of employment. The important districts for bidi are the rural areas of Amreli, Mehsana, Kaira and Baroda and the urban areas of Bhavnagar, Amreli, Kutch, Banaskantha, Sabarkantha, Mehsana, and Kaira. The districts of Kaira, Baroda, Mehsana, Ahmedabad, Panchmahals and Broach happen to be the tobacco producing areas of Gujarat.

ISIC Major Group 23 : Cotton textiles

The minor groups 230, 232 and 235 taken together constitute the most important industry in the State and the pride of India. Of these again the most important is cotton spinning and weaving in mills which earns it the top place in order of employment. The most important districts in mill cotton spinning and weaving are Bhavnagar, Amreli, Mehsana, Ahmedabad, Kaira and Surat, the pride of place naturally going to Ahmedabad. Almost all districts in Gujarat grow cotton. Minor group 230 cotton ginning, cleaning, pressing and baling, is therefore, widespread, being particularly evident in Rajkot, Surendranagar, Bhavnagar, Sabarkantha, Mehsana, Ahmedabad, Kaira, Baroda, Broach and Surat. Cotton weaving in both powerlooms (Minor Group 234) and handlooms (235) is strong, particularly the latter in the districts of Bhavnagar, Amreli, Kutch, Banaskantha, Mehsana, Ahmedabad, Kaira, Baroda, Broach and Surat. Printing of cotton textiles (237) is strong in the urban areas of Jamnagar, Rajkot, Banaskantha, Ahmedabad and Baroda.

ISIC Major Group 24 : Jute

This major group is of small consequence.

ISIC Major Group 25 : Wool

This major group is mainly confined to Jamnagar, Rajkot, Bhavnagar, Kutch, Panchmahals and Surat. Wool weaving is mainly confined to the shepherd communities in the rural areas of Jamnagar, Kutch, Panchmahals and Surat and in the urban areas of Bhavnagar and Panchmahals.

ISIC Major Group 26 : Silk

Silk including artificial silk weaving mainly obtains in the urban areas of Jamnagar, Kutch, Mehsana, Kaira, the prince of places being Surat. It is also done in the rural areas of Mehsana and Surat.

ISIC Major Group 27 : Miscellaneous textiles

Numerically the biggest industry in the State as well as the second largest employer of labour is the making of textile garments (Minor Group 273) which is heavily and uniformly distributed through all districts. This minor group accounts for an average of a sixth of all rural establishments and about a fifth of all urban establishments.

ISIC Major Group 28 : Wood

This major group in its two principal minor groups (281 and 289) is important in the life of the State. Although both minor groups are fairly uniformly distributed throughout the State, minor group 281 (wooden furniture and fixtures) is more important in the rural areas of Rajkot, Junagadh and Surat, and in the urban areas of Rajkot, Junagadh, Kutch, Panchmahals and Baroda, while minor group 289 (other wood products) is more important in the rural areas of Jamnagar, Bhavnagar, Amreli, Kutch, Banaskantha and Mehsana and in the urban areas of Jamnagar, Bhavnagar, Amreli, Kutch, Banaskantha, Sabarkantha and Broach.

ISIC Major Group 29 : Paper and paper products

This major group is not of major numerical importance in the State. It has some importance in the districts of Rajkot, Jamnagar, Ahmedabad, Baroda and Surat.

ISIC Major Group 30 : Printing and publishing

The most important minor group, numerically, is 302 (All other types of printing which is mostly urban based. Except for Banaskantha and Amreli all

other districts have fair number of establishments conducting miscellaneous printing work.

ISIC Major Group 31 : Leather and leather products

Minor group 311 is numerically the sixth most important industry in Gujarat and distributed more or less evenly over all districts.

ISIC Major Group 32 : Rubber, petroleum and coal products

This major group is mainly urban based and occurs in almost all districts, mainly concerned with repair of tyres and tubes, making and repair of rubber and rubber soled footwear and miscellaneous products.

ISIC Major Group 33 : Chemicals and chemical products

The important minor groups are 330, 335, 336 and 338. The Broach-Baroda-Ahmedabad-Kaira belt is rapidly developing into a vital centre for the large scale manufacture of basic industrial chemicals (330) and of medicines and pharmaceutical preparations, while the Saurashtra district capitals are noted for their concentration on medium scale production of medicines, pharmaceutical preparations, perfumes, cosmetics and other toilet preparations (335). The chief centres are the urban areas of Jamnagar, Rajkot, Bhavnagar, Sabarkantha, Mehsana, Ahmedabad, Kaira, Baroda and Broach. The manufacture of soap and other washing and cleaning compounds (336) is mainly obtained in urban areas of Rajkot, Bhavnagar, Sabarkantha, Mehsana and Broach. The manufacture of common salt (338) is widely undertaken in the districts of Jamnagar, Rajkot and Amreli and to some extent in Surat. Ahmedabad undertakes refining of salt.

ISIC Major Group 34-35 : Non-metallic mineral products

Minor group 350 (earthenware and pottery) alone is of importance and is numerically the eighth largest industry in the State. It is widely practised in all districts except Dangs in both rural and urban areas, particularly in Amreli, Junagadh, Sabarkantha, Ahmedabad, Kaira, Panchmahals, Baroda and Surat.

ISIC Major Group 36 : Basic metals

A certain amount of rerolling of iron and steel (360) is undertaken in Rajkot, Kutch, Ahmedabad, Baroda and Broach. But the most important minor group is 369 (sundry hardware) which is numerically the fourth largest industry in Gujarat and is uniformly spread over all districts. A striking feature is the survival of blacksmith shops all over the State which is all the more significant, as blacksmithy is rapidly dwindling in many other States.

ISIC Major Group 37 : Machinery

Minor group 370 (manufacture and assembling of machinery other than electrical and textile machinery) occupies the sixteenth place in order of number of units. It is the ninth largest employer of labour. The most important areas are the urban centres of Jamnagar, Rajkot, Surendranagar, Bhavnagar, Amreli, Junagadh; Kutch, Mehsana, Ahmedabad, Kaira, Panchmahals, Baroda and Surat.

ISIC Major Group 38 : Transport equipment

This major group is not of much significance except that repairing of bicycles claims numerous establishments.

ISIC Major Group 39 : Miscellaneous

The most important minor group is 393 (jewellery) which occupies the third place in Gujarat in point of number of units and the fifth in point of employment.

Jammu and Kashmir

The following are the rural and urban industries which have the most numerous establishments :

	Rural			Urban		
Rank	ISIC Minor Group	Description	Proportion per 1,000 Rural establishments	ISIC Minor Group	Description	Proportion per 1,000 Urban establishments
1	200	Milling of grain	453	273	Textile garments	177
2	369	Sundry hardwares. ..	90	393	Jewellery	107
3	255	Wool weaving in handlooms ..	86	200	Milling of grain	85
4	207	Edible oils	81	369	Sundry hardwares	67
5	311	Shoes and leather footwear ..	58	205	Bread, biscuits etc.	54
6	273	Textile garments ..	46	311	Shoes and leather footwear ..	44
7	350	Earthenware and earthen pottery	44	255	Wool weaving in handlooms ..	32
8	288	Miscellaneous wood and allied products	23	272	Embroidery, lace etc.	29
9	235	Cotton weaving in handlooms ..	22	365	Bell metal and brass ware	29
10	393	Jewellery	21	281	Wooden furniture and fixtures ..	27
11	314	Repair of shoes and leather products	12	209	Confectionery	27

It will be clear from the above inventory that the majority of establishments in any one group are in the unorganised sector.

Major Group 20 : Foodstuffs

This major group claims 56 per cent of all rural and 19 per cent of all urban establishments. Minor group 200 (milling of grain) is the most important, followed by minor group 205 (bread, biscuits etc.), 209 (confectionery) and 207 edible oils and fats).

Major Groups 21 and 22 : Beverages and Tobacco products

These are comparatively unimportant major groups. Major group 21 is concerned with aerated and mineral water. Major group 22 is concerned almost entirely with snuff and *hookah* tobacco.

Major Group 23 : Textile-Cotton

This major group claims 2 per cent of all rural and 3 per cent of all urban establishments. Half the workshops and factories under this major group relate to cotton weaving in handlooms (minor group 235). The other important minor groups are 233 (cotton dyeing and bleaching) which accounts for 29 per cent of all establishments in this major group and 230 (cotton ginning, cleaning, pressing and baling) which accounts for 16 per cent.

Major Group 24 : Textile-Jute

This is of little importance.

Major Group 25 : Textile-Wool

This major group accounts for 9 per cent of all rural and 5 per cent of all urban establishments, minor group 255 (wool weaving in handlooms) is most important, accounting for 66 per cent of all establishments in this major group, followed by embroidery and artwork (minor group 256) which accounts for another 32 per cent.

Major Group 26 : Textile-Silk

This major group is unimportant in rural areas but important in urban areas, accounting 2 per cent of all establishments in the latter. The most important minor groups are 264 (silk weaving in handlooms) and 263 (silk weaving in powerlooms).

Major Group 27 : Textile-Miscellaneous

This major group accounts for 5 per cent of all rural and 21 per cent of all urban establishments. About 85 per cent of workshops etc. falling in this major group are in minor group 273 (textile garments etc.). Minor group 272 (embroidery, lace work etc.) accounts for 14 per cent.

Major Group 28 : Wood and wood products

This major group accounts for 4 per cent of all rural and 8 per cent of all urban establishments. Minor group 281 (wooden furniture and fixtures) accounts for about 35 per cent of all establishments in this major group. Minor group 280 (sawing and planing of wood) accounts for another 23 per cent, minor group 284 (utensils, toys, artwares etc.) claims 20 per cent, while minor group 288 (cork, bamboo, cane, leaves etc.) for still another 15 per cent.

Major Group 29 : Paper and paper products

This major group is of no importance in the State and is mainly concerned with paper bags, cartons etc.

Major Group 30 : Printing and publishing

This major group is negligible in rural areas but accounts for one per cent of all establishments in urban areas. About 40 per cent workshops are engaged in all types of binding, stitching etc. (minor group 303). Another 37 per cent are concerned with miscellaneous printing (minor group 302). The remainder is shared about equally by minor groups 300 and 301.

Major Group 31 : Leather and leather products

This major group accounts for 7 per cent of all rural and 6 per cent of all urban establishments. Of the total number of workshops and factories 67 per cent fall under minor group 311 (shoes and other leather footwear). Minor group 314 (repairing of shoes and footwear) claims another 23 per cent.

Major Group 32 : Rubber, petroleum and coal products

This major group is negligible in the State. This major group is mainly concerned with repairs to rubber goods, mainly tyres and tubes.

Major Group 33 : Chemicals and chemical products

This major group is negligible in rural areas but accounts for about 1 per cent of all establishments in urban areas. The most important minor group accounts for 52 per cent of all establishments in this major group is soap and other washing and cleaning compounds (minor group 336). Minor group 335 (medicines, pharmaceuticals etc.) accounts for 40 per cent.

Major Group 34-35 : Non-metallic mineral products

This major group accounts for 5 per cent of all rural and 2 per cent of all urban establishments. The most important minor group is 350 which accounts for 94 per cent of all establishments in this major group.

Major Group 36 : Basic metals except machinery and transport equipment

This major group accounts for 9 per cent of all rural and 12 per cent of all urban establishments. The most important minor groups are 369 (sundry hardware) which accounts for 56 per cent and 365 (brass and bell metalware) which accounts for 24 per cent. Minor group 367 (tin etc.) claims 10 per cent only.

Major Group 37 : Machinery and electrical equipment

This major group is negligible in rural areas but accounts for about 1 per cent of all establishments in urban areas. Most of the establishments are concerned with servicing and repairs.

Major Group 38 : Transport equipment

This major group is negligible in rural areas but accounts for 5 per cent of all establishments in urban areas. The most important minor groups are 384 (repair and service of motor vehicles) and 388 (repair and servicing of cycles), which account for 52 per cent and 45 per cent of workshops in this major group.

Major Group 39 ; Miscellaneous manufacturing

This major group accounts for 2 per cent of all establishments in rural and 13 per cent of all establishments in urban areas. The most important minor group is 393 (jewellery and silverware) which accounts for 84 per cent of all establishments in this major group. Watches and clocks (392) accounts for another 9 per cent.

Kerala

Kerala exhibits signs of regional specialization in industries, partly owing to the specialization of skills in certain areas and partly to the ready availability of special types of raw materials. A brief description of regional specialization is attempted below, the details of which will be available in the Kerala Report.

ISIC Minor Groups 231 and 235: Cotton spinning and handloom weaving

Although spread throughout the State, the greatest concentration is found in Cannanore and Tellicherry taluks of Cannanore district, which contain the largest number of registered as well as non-registered factories. These two taluks have established a reputation for the manufacture of furnishing fabrics, household linen and even garment cloth, mainly through the enterprise of The Commonwealth Trust Company, who have established powerlooms extensively in this area. The regions of specialization of varieties of handloom cloth are given below :

Region	District	Taluk	Lines in which specialized
North Kerala	Cannanore	Cannanore	Furnishing fabrics, household
		Tellicherry	linen, garment cloth
		Hosdrug	
		Taliparamba	
		Kasaragod	
	Kozhikode	Badagara	
		Kozhikode	
	Palghat	Palghat	
	Trichur	Alathur	
		Chittur	
		(Eruthempathy and Kuthampilly)	"Erezha" Local bath towels
Central Kerala	Trichur	Mukundapuram	
	Ernakulam	Parur	Fine counts
		Muvattupuzha	
South Kerala	Alleppey	Chengannur	
	Quilon	Quilon, Kottarakara	All types
	Trivandrum	Chirayinkil, Trivandrum, Neyyattinkara	Fine varieties called 'Neriyathu'

The taluks in which cotton textile mills are concentrated are Alwaye (Ernakulam) and Trichur (Trichur). Quilon and Mukundapuram (Trichur) have one textiles mill each.

ISIC Minor Groups 006 and 209: Processing of cashew

Processing of cashew offers high employment, being next to weaving. It is concentrated mostly in Quilon and Kottarakara taluks of Quilon, perhaps on account of concentration of traditional skill in this region.

ISIC Minor Group 277 : Manufacture of coir and coir products

The areas of concentration are :

District	*Taluk*	*Reasons*
Alleppey	Ambalapuzha, Sherthalai	Alleppey was the main port of export
Ernakulam	Cochin	
Kozhikode	Kozhikode	

ISIC Major Group 30 : Printing and publishing

The important concentrations in order of importance are as follows :

District	*Taluk*
Trivandrum	Trivandrum
Quilon	Quilon
Alleppey	Chengannur Ambalapuzha
Kottayam	Changanacherry Kottayam Meenachil
Ernakulam	Muvattupuzha Cochin Kanayannur
Trichur	Mukundapuram Trichur Alathur
Kozhikode	Kozhikode Tellicherry Cannanore

ISIC Minor Groups 280 and 281 : Timber sawing and furniture making

The important centres of manufacture of wooden furniture and fixtures are :

District	*Taluk*
Trivandrum	Trivandrum Chirayinkil
Quilon	Quilon Karunagapally
Alleppey	Karthigapally Thiruvalla Ambalapuzha
Kottayam	Changanacherry Kottayam Meenachil
Ernakulam	Muvattupuzha Cochin Kanayannur
Trichur	Mukundapuram Trichur Alathur
Kozhikode	Kozhikode
Cannanore	Tellicherry Cannanore

The important centres of timber sawing are in :

District	*Taluk*
Cannanore	Cannanore
Kozhikode	Kozhikode
Palghat	Palghat
Trichur	Trichur
Ernakulam	Kunnathunad Alwaye
Kottayam	Kottayam
Quilon	Quilon

Kozhikode has the largest concentration, Kallayi being one of the largest timber yards in the world, since large quantities of timber are floated down the rivers from South Wynad and Nilambur forests. Quilon benefits from the excellent water, rail and road communications.

ISIC Minor Group 340 : Bricks and tiles

District	*Taluk*	*Reasons*
Kozhikode Trichur Ernakulam Quilon	Tirur Mukunda- puram Alwaye Quilon	Good clay from paddy fields together with transport facilities by water and rail

ISIC Minor Groups 010 and 217 : Tea

District	*Taluk*
Kottayam	Peermade Devicolam Kanjirappally Udumbanchola
Cannanore	North Wynad
Kozhikode	South Wynad
Quilon	Pathanapuram
Trivandrum	Nedumangad

ISIC Minor Groups 220 and 221 : Bidi and cigars

Bidi making is almost universal but registered factories, which are small in number, are concentrated in the taluks of Palghat and Ottapalam (Palghat), Chittur (Trichur), Cannanore and Tellicherry (Cannanore). Palghat has the maximum concentration of 17 registered factories. Unregistered bidi workshops are ubiquitous, but the highest concentrations are found in about 25 taluks of which the more important are :

District	*Taluk*
Quilon	Quilon Karunagapally Kunnathur
Trivandrum	Chirayinkil
Cannanore	Cannanore
Ernakulam	Kanayannur Cochin

The cigar making industry, because of the proximity of tobacco cultivation in Hosdrug taluk, has its highest concentration in :

District	*Taluk*
Cannanore	Hosdrug Cannanore Tellicherry
Kozhikode	Badagara Quilandy

ISIC Minor Groups 320 and 323 : Tyres and rubber goods

Mainly owing to the presence of rubber plantations in them manufacture of tyres and rubber products is also concentrated in the following taluks :

District	*Taluk*
Kottayam	Kottayam Kanjirappally
Quilon	Pathanapuram Pathanamthitta
Trichur	Trichur
Kozhikode	Kozhikode
Trivandrum	Trivandrum

ISIC Minor Group 006 : Crushing of 'copra' (coconut kernels)

This industry has the highest concentration in the following areas owing to the availability of raw materials and cheap transport particularly by water : Ambalapuzha leads all others.

District	*Taluk*
Alleppey	Shertalai Ambalapuzha Karthigapally Mavelikkara
Trivandrum	Trivandrum
Trichur	Trichur Mukundapuram
Quilon	Quilon
Ernakulam	Kanayannur
Kozhikode	Kozhikode
Kottayam	Kottayam

ISIC Minor Group 200 : Rice and flour mills

The largest number of registered rice mills is found in Palghat followed by Trichur, Alathur and Chittur in Trichur district, the great rice belt of Kerala. But registered factories constitute a small proportion of the total establishments which are found also in the rice growing tracts of Muvattupuzha and Kunnathunad (Ernakulam), Talappilly and Mukundapuram (Trichur) and Kuttanad (Alleppey).

ISIC Minor Group 285 and 288 : Splints and veneers

Quilon taluk leads in the manufacture of splints and veneers, while the taluks of Tirur and Quilandy (Kozhikode), Mukundapuram (Trichur), Muvattupuzha (Ernakulam) and Trivandrum follow with smaller numbers.

ISIC Minor Group 352 : Ceramics

Quilon, including Kundara, a town located in this taluk, Tirur (Kozhikode) and Alwaye (Ernakulam) have the chief concentration of the ceramic industry, the main reason being the availability of suitable china clay.

Miscellaneous important industries

ISIC Minor Group 341 : Cement

Kottayam has the only cement factory of the State, owing to the availability of lime shells in the backwaters of Kottayam town.

ISIC Minor Group 357 : Glass

The glass industry is concentrated solely at Alwaye (Ernakulam) and Palghat.

Manufacture of rayon is located in Perumbavoor in Kunnathunad taluk of Ernakulam.

ISIC Minor Groups 361, 366 and 376 : Aluminium and aluminium products

	Product	*Location*
1	Aluminium metals and extruded sections of aluminium.	Alwaye (Ernakulam)
2	Plain and steel covered aluminium conductors, aluminium rods and insulated aluminium cables.	Kundara in Quilon taluk

ISIC Minor Groups 332 and 339 : Fertilizers, rare earths, DDT

The factories are located in Alwaye (Ernakulam).

ISIC Minor Group 201 : Sugar

The only sugar industry is located in Thiruvalla (Alleppey).

ISIC Minor Group 341 : Concrete pipe industry

This is located in Chavara.

ISIC Minor Group 290 : Paper

The only paper mill of the State is at Punalur.

ISIC Minor Group 324 : Petroleum

Ernakulam and Quilon are the main centres of storage and distribution.

ISIC Major Group 38 : Transport equipment

Minor Group 384 : Automobile and general engineering

Foundry works, automobile services, general engineering and repairs are concentrated in :

District	*Taluk*
Cannanore	Tellicherry
Kozhikode	Badagara
	Kozhikode
	Tirur
Palghat	Palghat
Trichur	Mukundapuram
Ernakulam	Cochin
Kottayam	Kottayam
Quilon	Quilon
Trivandrum	Trivandrum

There are several rapidly developing industrial zones in Kerala which claim a variety of industries each. The most important of them are mentioned below :

(1) *The Cochin-Ernakulam-Alwaye area and suburbs.* The total number of registered factories in Alwaye was 30 in 1960 and the number of workers employed 7,597. The industries located are : Fertilizers and chemicals, aluminium, glass, DDT, tiles, ceramics and cotton textiles. Ernakulam has three large petroleum installations, a number of oil mills and two soap factories. Mattancherry and Fort Cochin have a number of coir and engineering factories. Cochin has considerable port, dry docking and stevedoring facilities. It is proposed to build a ship-building yard at Cochin. The total number of registered factories at Ernakulam, Mattancherry and Fort Cochin comes to 137 and the number of workers 12,621. Further factories are on their way to this area, the more important of them being : (i) a zinc smelter plant with an investment of Rs. 5 crores and a capacity of 20,000 lbs. of zinc per year and 130 lbs. of sulphuric acid per day; (ii) an abrasive aluminium oxide factory at Edapally, between Ernakulam and Alwaye, with an investment of over Rs. 2 crores; (iii) a penstock factory at Palluruthy for the

supply of penstocks in hydel projects of Madras and Kerala; (iv) a tinplate factory at Edapally of Rs. 20 lakhs; (v) a gelatine and ossein factory with an investment of Rs. 60 lakhs at Alwaye; (vi) a wire-rope factory at Alwaye with an investment of Rs. 1 crore, work on which has already started; (vii) a type manufacturing factory at Kalamassery at Alwaye which has already made progress; (viii) a water meter plant with an investment of Rs. 20 lakhs nearing completion at Palluruthy, and (ix) expansion of the fertilizer factory at Alwaye.

(2) *Kundara-Killikollur-Quilon in Quilon.* The industries in Quilon are cashew-processing, saw mills, cotton textiles, tiles, electrical goods, pencils etc. Kundara has ceramics, aluminium cables, rods, conductors etc., enamel goods, industrial starch and electrical goods etc. Killikollur is also a fast developing area. This zone enjoys facilities of communication by water, rail and road.

(3) *Calicut.* This area contains the big timber yard of Kallayi, a hydro-generator factory, oil and soap factories. It holds out prospects of further industrial growth with the establishment of a rayon factory with an initial capacity of 150 tons of pulp per day and of a re-rolling mill with a capacity of 15,000 tons of iron rods, bars etc.

(4) *Industrial Estates.* There are seven industrial areas in the State mainly concerned with the development and production of small and medium engineering industries like cycles and cycle parts, clay models, nuts and bolts, chemicals, locks, furniture, machine tools, die casting, implements, footwear, type casting, pharmaceuticals, soap, oil, matches, ink, household utensils, fabricated tarpaulins, motor parts, radios, plastic goods, electrical goods, stainless steel goods, etc. These estates are located at (1) Pappanamcode in Trivandrum district; (2) Kollakadavu in Alleppey district; (3) Ethumanur in Kottayam district; (4) Ollur in Trichur district; (5) Palghat in Palghat district; (6) Edacad in Kozhikode district and (7) Tellicherry in Cannanore district.

Distribution of factories and workshops

The total number of factories and workshop listed in 1960 was 58,365 distributed in 133 types of industries. The most numerous factories and workshops were found under the following types of industries :

ISIC Minor Group	Description	Number of establishments
220	Bidi manufacture	8,807
273	Textile garments	7,210
235	Cotton weaving in handlooms	4,851
393	Jewellery etc.	4,421
200	Husking and milling of rice, flour etc.	4,392
277	Coir and coir products ..	4,030
369	Sundry hardwares	3,545
388	Bicycle repair	1,972
204	Slaughtering, preservation of meat and fish and canning of fish	1,728
335	Medicines, pharmaceuticals, etc.	1,228
207	Production of edible fats and oils (other than hydrogenated oil)	1,148
281	Wooden furniture	1,138
205	Production of bread, biscuits, etc.	1,078

The following are some of the more important sub-divisions :

200	(*i*) Production of copra ..	1,556
	(*ii*) Handpounding of rice	394
	(*iii*) Processing of arecanut ..	61
	(*iv*) Processing of ginger ..	21
	(*v*) Rice and flour mills ..	2,360
	Total ..	**4,392**
204	(*i*) Preservation of fish, frog's legs, etc.	1,626
	(*ii*) Slaughtering of cattle etc.	102
	Total ..	**1,728**

Distribution by number of persons employed and by fuel used

The following table summarises the distribution of establishments by number of persons employed and by fuel used.

Number of factories and workshops distributed by number of persons employed and by fuel used

Total number of factories and workshops— 58,365
Total number of persons employed— 394,787

Kind of fuel or power used		Number of establishments by size of employment							
		Total	1	2-5	6-9	10-19	20-49	50-99	100+
I All fuels	T	5,235	1,305	2,191	567	432	368	199	173
	R	3,031	1,060	1,197	237	163	175	109	90
	U	2,204	245	994	330	269	193	90	83
(*a*) Electricity	T	4,528	1,079	1,934	512	383	299	174	147
	R	2,396	842	970	188	120	112	91	73
	U	2,132	237	964	324	263	187	83	74
(*b*) Liquid fuel	T	669	223	245	51	46	61	24	19
	R	617	218	225	49	40	55	17	13
	U	52	5	20	2	6	6	7	6
(*c*) Coal, wood and bagasse	T	27	3	8	4	3	4	1	4
	R	9	..	..	..	3	4	1	1
	U	18	3	8	4	..	..	..	3
(*d*) Other power	T	11	..	4	..	..	4	..	3
	R	9	..	2	..	..	4	..	3
	U	2	..	2	..	..	..	..	..
II No power	T	53,130	19,596	26,746	3,516	2,092	784	184	212
	R	36,231	14,658	16,995	2,301	1,459	532	125	161
	U	16,899	4,938	9,751	1,215	633	252	59	51

The above table gives an adequate idea of the concentration of establishments employing more than 5 persons and electricity in urban areas. It should be borne in mind that the majority of those factories answering to these descriptions in the rural areas are close to or form fringes of urban areas, their decision to keep outside of urban limits being mainly determined (a) by attractive land prices in non-urban areas for factory and ancillary buildings including residential accommodation, (b) cheaper rents and (c) exemption from a variety of municipal taxes and fees.

Madhya Pradesh

Taking the rural and urban industries together the following appear to be numerically the most important industries in the State.

Rank among rural industries according to number of establishments	ISIC Major Group	Description	Number per 1,000 of all establishments: Rural	Urban
1	22	Tobacco products	178	164
	220	Manufacture of bidi		
2	31	Leather and leather products	172	60
	311.1	Footwear		
3	28	Wood and wood products ..	171	80
	283.1	Carpentry works concerned with agricultural implements		
4	36	Basic metals and their products (except machinery and transport equipment) ..	105	61
	369.1	Agricultural implements		
5	20	Foodstuffs ..	103	183
	200.1	Flour		
	200.6	Parching of grains		
	207	Oil pressing		
	209.2	Making of sweetmeats, etc.		
6	34-35	Non-metallic minerals ..	90	39
	350	Earthenware, pottery		
7	23	Cotton textiles ..	64	83
	235	Handloom weaving		
8	27	Miscellaneous textiles ..	58	126
	273.4	Garments		
9	39	Miscellaneous manufactures ..	47	109
	393.2	Goldsmithy		

Numerically, bidi is the King in Madhya Pradesh. It is by far and away the pre-eminent rural industry and holds second rank in the urban areas. Even processing of foodstuffs, so dominant in other States, has given way to metaphysical tobacco. Even as Bhandara in Maharashtra pulls the picture of industrial establishments a little out of shape by the predominance of bidi workshops, so does Jabalpur Division to Madhya Pradesh by claiming virtual monopoly in this industry. The number of bidi workshops in the State is 70,965 or just under 18 per cent of all establishments. Of these 70,965 units no less than 67,757 are located in Jabalpur Division where the manual character of the industry is maintained by a law which prohibits the use of machinery. Bidi accounts for a just over half (50·48 per cent) of all rural units and just under 45 per cent (44·71) of all urban units in Jabalpur Division. The reason of this concentration is the abundant growth of bidi-wrapping leaf (tender) in the Division, transport of which, because of its bulk, becomes difficult and dictates short hauls. Bidi making used to be such a serious threat even to agricultural operations that in the former Central Provinces there was a law prohibiting bidi-making in the rural areas during the agricultural season, which was later declared void by the Supreme Court. The principal employment ranges in bidi-making are 1-person and 2-5 person workshops. The 1-person bidi units account for 14·7 per cent of all 1-person units in Madhya Pradesh and 44 per cent in Jabalpur. The 2-5 person units amount to 21·9 per cent in Madhya Pradesh and 57·5 per cent in Jabalpur. But bidi-making has invaded and made extensive conquests even in the sphere and medium (20-49) and large (50+) establishments. Thus, of the 479 medium and 84 large establishments in the rural areas of Madhya Pradesh, as many as 367 (77 per cent) and 48 (57 per cent) respectively are engaged in bidi-making.

The undisputed supremacy of bidi-making having deserved this brief but special treatment we may now make a brief survey of other industries by major ISIC groups. The figures relate to rural areas unless urban areas are explicitly stated.

ISIC Major Group 20 : Foodstuffs

This, as already noted, is fifth in numerical importance of workshops and factories in the State. The overwhelming majority of the units both in rural and urban areas are 1-person and 2-person establishments but milling of paddy is done in medium and large workshops and factories in Raipur, Bilaspur and Shahdol. The industry is more or less evenly distributed throughout the State even in Rewa.

Minor Group 207 : Oil pressing

This is the most important minor group. Rewa Division has the largest number of establishments (6,619) concerned with oil pressing (38 per cent), the main reason being that the districts of Rewa Division produce about 38 per cent of all sesamum grown in the State and substantial quantities of groundnut and linseed. Excluding the preeminence of Rewa, oil pressing is also extensive in Jabalpur, though the number of units in this Division is less than half of Rewa's (3,140 or 18 per cent). The industry is well distributed over the remaining Divisions of Gwalior, Indore, Bhopal, Bilaspur and Raipur, ranging between 7·7 and 10·6 per cent of all units.

Minor Group 200.1 : Flour

This is the second most important minor group (16 per cent of all units in the major group) and most units use power, liquid fuel being used in 95·2 per cent of units and electricity in the rest. The majority of the units employ less than 5 persons each, only 43 workshops employing 6-19 persons. Small units seem to pay better than large ones in the type of economy prevailing in the State.

Minor Group 209 : Making of sweetmeats, laddu, peda, etc.

This is third in importance (15 per cent) in this major group and well dis-

tributed through the State, Indore and Jabalpur Divisions taking the lead. Regionally speaking, this industry seems to be related to the level of liquid cash income available for the purchase of this commodity. In contrast to flour milling no power is used at all in this minor group, more than 99 per cent of the units employing 1-5 persons.

Minor Group 200.6 : Parching of grain

This minor group has 12 per cent of all establishments in the major group. It has an uneven distribution, being practically non-existent in Gwalior, Rewa, Indore and Bhopal Divisions and quite low (13 per cent) in Jabalpur Division. The Divisions of high frequency are Bilaspur (47 per cent) and Raipur (36 per cent), the districts having large concentrations being Balaghat (496), Bilaspur (289), Raigarh (1,614) and Raipur (1,385). The Kewats monopolise this trade in Chhattisgarh and the Barbhunjias in Jabalpur Division. The high degree of localisation seems to be due to the availability of rice which lends itself to the making of murra, lai and murra-laddu. The occupation is traditional and no power is used. The numbers of 1-person and 2-5 person units are roughly in the ratio of 2 to 1.

	Division	Number of units
1	Gwalior	664
2	Rewa	701
3	Indore	486
4	Bhopal	884
5	Jabalpur	1,865
6	Bilaspur	8,685
7	Raipur	6,682

Some lines of textile production seem to be the preserve of handlooms. The sari is one such important line. Chhattisgarh produces a long sari called the lugda, mainly for local use and a large proportion of the looms are engaged in it. Traditional designs still prevail which also explains why production is still confined to 1-person (33·6 per cent) and 2-5 person (64 per cent) workshops.

ISIC Major Group 21 : Beverages

This industry is important only in a few districts in the east and south-east, being limited to Shahdol, Sidhi, Mandla, Surguja, Bilaspur, Raigarh, Raipur and Bastar. Bastar, Surguja and Mandla have large tribal populations. Even though no power is used, 2-5 person units answer for about 60 per cent of the 500 establishments. Single-person establishments account for only 20 per cent but there are also a few workshops in the higher ranges of 6-9 persons (74), 10-19 persons (17), 20-49 persons (4). The number of units returned in the Census roughly corresponds to the number of licenses issued in the State.

ISIC Major Group 22 : Tobacco products

This has been discussed above.

ISIC Major Group 23 : Textile-Cotton

This is the seventh industry in order of numerical importance in the State. The most important minor group is 235 (cotton cloth weaving in handlooms) which has 93 per cent of the establishments in the major group. The distribution in the districts is as follows :

Percentage	Districts	
3·33	Morena, Bhind, Shivpuri, Guna	
3·51	Tikamgarh, Chhatarpur, Shahdol	
2·43	Mandsaur, West Nimar	
4·43	Sehore, Hoshangabad, Betul	
9·34	Narsimhapur, Mandla, Chhindwara, Seoni, Balaghat	
43·50	Surguja ..	1,101
	Bilaspur ..	3,533
	Raigarh ..	4,051
33·46	Durg ..	1,697
	Raipur ..	3,774
	Bastar ..	1,211

There is no establishment which uses power. Cultivation has been returned as a subsidiary occupation by 42 per cent of men and 40 per cent of women engaged in handloom production.

The other minor groups of minor importance are 230 (cotton ginning, cleaning, etc.) about 50 per cent of units under which are to be found in Indore

Division; 236 (khadi in handlooms) which also is similarly concentrated in Indore. Workshops run with power are mostly contained in Indore Division (Mandsaur, Dhar, West Nimar) and Bhopal Division (Rajgarh). Workshops which use no power are also concentrated in Indore and Bhopal which account for over two-thirds of the establishments. This is but natural as cotton is grown mostly in Indore and Bhopal Divisions, the former accounting for 74 per cent and the latter for 24 per cent of all cotton grown in the State. Sixteen districts which produce 95 per cent of the cotton have 79 per cent of all ginning establishments. Not all the cotton however is ginned in the State. The Nimar districts, for instance, export much of their cotton to Maharashtra. Damoh and Bhind have very small gins which secure their raw material from small isolated pockets. Minor Group 233.1 (dyeing of cotton cloth and yarn) is found to a large extent in Narsimhapur and Damoh of Jabalpur Division and West Nimar of Indore Division. Minor Group 237 (printing of cotton cloth) is predominantly located in Mandsaur and Indore of Indore Division. The units are mostly small and none uses power.

ISIC Major Group 24 : Textile-Jute

There are two minor groups which deserve mention : minor group 244.3 (making of rope by palm fibre) with 216 establishments and minor group 244.1 (making of rope and cordage out of hemp) with 134 units. The making of rope with palm fibre is practised in Satna, Jabalpur and Narsimhapur, 59 per cent of the units being 2-5 person establishments. More than half of the units engaged in hemp rope making are in Raigarh, the rest being mostly in Bilaspur, Durg and Satna.

ISIC Major Group 25 : Textile-Wool

The total of all units under major group 25 accounts for 1,794 establishments or 0·53 per cent of all rural establishments, which are classifiable under minor group 255 (weaving of woollen cloth in handloom) which has 99·6 per cent of establishments in this group. The industry is mostly limited to the production of blankets on a cottage industry scale in which no power is used and all are small establishments, 59 per cent being single-worker units and 41, 2-5 worker ones. The districts with more than 100 units each are Durg, Raipur, Shahdol, Satna, Bilaspur and Panna.

ISIC Major Group 26 : Textile-Silk

This is a numerically unimportant group. The main industry is the spinning of tussar, other than in mills, in the eastern districts.

ISIC Major Group 27 : Textile-Miscellaneous

This is numerically the eighth most important industry and is overwhelmingly confined to minor group 273.4 (making of textile garments) which claims about 97 per cent of the 19,553 units. It accounts for as much as 11 per cent of units in Indore Division and 10 per cent in Raipur Division. It is least important in Rewa Division where it has only 3·06 per cent of rural establishments. The distribution of units seems to be related to income, for the richer areas like Indore, Bhopal and Jabalpur Divisions have proportionately more of units per unit of population, while in Gwalior Division the proportions of units and populations are most closely matched. The proportion of units to population declines in Rewa, Bilaspur and Raipur which have large tribal populations and are relatively poor. Surguja, Bastar and Jhabua, for instance, have returned very small number. No establishment uses power. The single-person workshops account for just under 83 per cent of all units, while the 2-5 person units account for just over 17 per cent. A very small proportion, 0·26 per cent, falls in the range 6-19 persons. The Census Superintendent observes that factory-made clothes are making rapid inroads into the town and even large villages and rural markets.

ISIC Major Group 28 : Wood and wood products

This major group, the third numerically important industry, displays an unbalanced distribution between the Divisions. The industry is concentrated in the south-west and north-east (Indore 16 per cent, Jabalpur 21 per cent, Bhopal 17 per cent and Rewa 23 per cent), while it is quite sparse in the north and south-east (Gwalior 9 per cent, Bilaspur 8 per cent and Raipur 6 per cent), serving as a rough index of regional prosperity. The distribution of units among minor groups is as follows.

Minor Group	Number of units
283•1	23,974
284•9	2,388
288•3	2,191
288•5	20,206
288.6	1,179
288•9	6,392

None of the establishments in these minor groups is run by power and practically all but 14 of them are small establishments. There are only 128 establishments run with some kind of power of which 123 are in minor group 280 (sawing, planing and milling of wood), which are, naturally enough, concentrated in the forest regions close to the urban centres of Bhopal (33), Indore (28), Raipur (25), Bilaspur (22) and Jabalpur (10) Divisions. Gwalior and Rewa have 2 and 3 units respectively.

ISIC Major Group 29 : Paper and paper products

There are only two units, both of which are small.

ISIC Major Group 30 : Printing and publishing

This is not a developed industry in the State and is mostly concentrated in Bhopal, Jabalpur and Indore.

ISIC Major Group 31 : Leather and leather products

This is the second largest industry in the State, but not one uses power in turning out footwear and practically all of them are small establishments.

Minor Group 311.1 : Footwear

89 per cent of the 51,565 units are in the 1-5 worker range. It is clear that they serve purely local demand. The relation between the distribution of footwear units in the Divisions and their distribution of *chamar* populations is given below :

	Division	Percentage of total units engaged in footwear	Percentage of *chamar* population
1	Gwalior	7·1	22·7
2	Rewa	24·0	26·8
3	Indore	17·9	10·9
4	Bhopal	19·8	19·2
5	Jabalpur	21·9	16·4
6	Bilaspur	4·4	2·9
7	Raipur	4·9	1·1
	State	**100·0**	**100·0**

The Census Superintendent observes that although the use of footwear is common in the north the peculiarity in the case of Gwalior Division is due to the fact that some 10 or 12 years ago the *chamars* or traditional shoe makers decided to give up their occupation of skinning carcasses as a result of a decision taken at a conference held in Unnao. "Also *chamars* now call themselves *jatavs*. The present trend is towards cheap footwear made of canvas and discarded tyres. The trade in hides and skins has declined considerably in the last few years". The low proportions in Bilaspur and Raipur Divisions are due as much to the poverty of the tribal populations as to the relative paucity of the shoe-making caste. The strength of the other minor groups is as follows :

ISIC Minor Group	Description	Number of units
310.1	Flaying, processing of hides, etc.	2,415
313	Leather products such as suitcases	2,204
314	Repair of shoes, etc. ..	1,784

Of the 2,415 units engaged in flaying and processing of hides, about 83 per cent are situated in the contiguous group of districts Mandsaur, Ratlam, Ujjain, Shajapur, Sehore, Rajgarh, Guna,

Vidisha, Sagar, Chhatarpur and Tikamgarh. The Census Superintendent makes an interesting observation: "The western districts of this group adjoin Rajasthan and through them pass the long cattle herds that ultimately reach the eastern and south-eastern districts for sale; in these areas, the turnover in cattle (in bullocks, particularly) is very great. Also in the 11 districts just mentioned, the number of cattle fairs is rather large."

Minor Group 313: Manufacture of leather products such as leather upholstery

Thirteen districts have comparatively large numbers of establishments: Chhatarpur; Shahdol-Bilaspur-Raigarh-Jabalpur-Seoni-Balaghat-Chhindwara-Betul-Hoshangabad-East Nimar; Mandsaur-Ratlam.

ISIC Major Group 32: Rubber, petroleum and coal products

The number of workshops and factories is very small. They are mainly confined to urban areas and are devoted to (a) the vulcanizing of tyres and tubes and (b) manufacture of chappals from torn tyres and other rubber footwear.

ISIC Major Group 33: Chemicals and chemical products

There are hardly any modern chemical plants even in urban areas and this minor group is overwhelmingly concerned with traditional local demands.

ISIC Minor Group	Description	Number of units
333	Fireworks	105
335·2	Agarbatti (incense sticks) ..	31
335·7	Medicines and pharmaceuticals	146
336·1	Soap and washing soda ..	220
337·3	Plastic goods	13
339·1	Inks	10
339·2	Candles	11

In minor groups 335.7, 336.1 and 337.3, 75 to 90 per cent of the workshops and factories are in the size group 1-5, while in minor groups 333 and 339.2 more than 90 per cent are in that size. They have therefore little relation to modern chemical plants.

ISIC Major Group 34-35: Non-metallic mineral products

This is the sixth numerically largest industry in the State and is more or less evenly distributed throughout except that in Raipur Division (9·2) is lower than the average, and Rewa Division has the highest proportion (24 per cent). One of the major factors determining location is the availability of suitable clays but per capita income levels are of some importance too. Jabalpur district has the only large establishment employing more than 100 persons. The following statement gives the regional distribution of minor groups:

ISIC Minor Group	Description	Districts
340·1	Bricks ..	Jabalpur, Chhindwara, Raipur, Durg
340·2	Roofing tiles ..	Jabalpur, Durg
342·2	Lime making ..	Satna and Jabalpur, Raipur and Bilaspur Divisions
344	Stone utensils	Dewas (Khategaon), East Nimar (Khandwa), Vidisha (Vidisha), Betul (Betul) Sagar (Banda), Jabalpur (Murwara, Sihora, Patan) Seoni, (Seoni), Durg (Sanjari-Balod).
345	Stone images and toys ..	Jabalpur (Bhedaghat), Bilaspur
356·1	Earthen toys and artware ..	Indore, Raisen, Hoshangabad, Mandla, Seoni

Minor Group 350 (earthenware and earthen pottery) is of course universal and quite prominent even in urban areas. The following statement makes interesting reading:

Class of Towns	Proportion of State from urban population	Proportion of pottery establishments
Class I	39·06	16·83
Class II	8·22	4·08
Class III	20·60	13·83
Class IV	16·19	23·99
Class V	14·52	36·01
Class VI	1·41	5·26

The above statement considered along with the fact that pottery comprises 8·8

per cent of all rural establishments in rural areas and 3·2 per cent of all urban establishments in urban areas, seems to show that pottery is rapidly shrinking in towns of population 20,000 and above.

The enumeration of brick-making and lime-burning suffered at the houselisting stage (September-October) because of their seasonal character, as much greater numbers of brick-makers and lime-burners were returned during the Census (February-March).

The cement industries at Kymore and Satna are important.

ISIC Major Group 36: Basic metals except machinery and transport equipment

Although this is numerically the fourth largest industry in the State about 61 per cent of the units are single-person establishments turning out agricultural and domestic hardware and another 13,451 units are 2-5 person workshops and factories. In the circumstances the distribution of the workshops is fairly even throughout the Administrative Divisions. Power is hardly used, the actual number being only 11 (9 using electricity and 2 liquid fuel). Only 8 per cent of all urban establishments use power and only 71 establishments (1·7 per cent) employ 50 or more workers. Out of the power using establishments, nearly three-fifths are in 4 minor groups.

ISIC Minor Group	Description	Number of units using power
360.2	Manufacture of iron and steel	24
368.3	Engraving, embossing, polishing and welding of metal ..	133
369.3	Iron utensils (buckets, etc.) and articles from iron sheets	16
369.9	Sundry hardwares	10
		183

Even in urban areas the 1-5 person establishment constitutes over nine-tenths (92·4 per cent) of all units.

ISIC Major Group 37: Machinery and electrical equipment

This is a very minor industry in rural areas but has some importance in urban localities, where the important minor groups are as follows:

ISIC Minor Group	Description	Number of urban units
372	Small machine tools and machine parts	223
373	Sewing machine parts ..	17
375	Repairing and servicing of fans	15
377·2	Manufacture and charging of batteries	48
378	Repairing and servicing of radios	136
379·2	Repairing and servicing of electrical apparatus ..	67

It is only minor group 372 that makes extensive use of power.

ISIC Major Group 38: Transport equipment

In rural areas workshops for the repair of cycles and rickshaws (minor group 388) with 1,070 establishments constitute 91 per cent of all units in the major group. Of these 70 per cent are single-person establishments and 30 per cent are in the range 2-5 persons. The distribution of these workshops in the Divisions is a rough index of relative prosperity in Indore and Jabalpur.

Division	Percentage of transport equipment units (State 100) (Cycles and Rickshaws)
Indore	23·93
Jabalpur	23·18
Raipur	20·09
Bilaspur	14·39
Rewa	7·10
Gwalior	6·73
Bhopal	4·58

There is a cycle repairing shop in almost every big village. The number of villages

with over 2,000 population each in the Divisions is as follows :

Division	Number of villages over 2,000 population
Indore	152
Jabalpur	125
Raipur	86
Bilaspur	104
Rewa	134
Gwalior	132
Bhopal	82

Repairing and servicing of automobiles (minor group 384) is the object of activity in urban areas, where the importance of this major group ranks ninth in importance in urban areas (5·84 per cent of all urban establishments). The Census Superintendent considers it a 'growth' industry, almost completely urban based. The distribution of units in minor group 384 also proves the state of prosperity in the Divisions.

Division	Percentage of units in minor group 384
Indore	33·34
Jabalpur	21·06
Bhopal	11·55
Raipur	11·35
Gwalior	10·09
Rewa	6·57
Bilaspur	6·04

So far as repairing of cycles and rickshaws (minor group 388) is concerned a perfect correspondence in relative rank is observed between (a) percentage of urban population in each Division and (b) percentage of urban establishments minor group 388 in each Division, so much so that even the actual percentages are very close.

Rank	Division	(*a*) Percentage of urban population	(*b*) Percentage of minor group 388 in urban establishments
1	Indore	30·83	34·06
2	Jabalpur	20·88	22·16
3	Bhopal	13·54	10·95
4	Gwalior	12·59	10·40
5	Raipur	0·60	9·88
6	Bilaspur	5·88	6·32
7	Rewa	5·68	6·23

A similar correspondence is observed between (1) percentage of urban population in each class of town and (2) percentage of urban establishments in minor group 388 in that class of town.

Rank	Class of town	Percentage of urban population	Percentage of minor group 388 in this class of town
1	I	39·06	39·08
2	III	20·60	23·14
3	IV	16·19	14·24
4	V	14·52	13·63
5	II	8·22	8·51
6	VI	1·41	1·40

This of course underlines the fact that the use of cycles is strictly related to urban population and does not show any sign of differential rise with improvement in the class of town.

ISIC Major Group 39 : Miscellaneous manufacturing

This is numerically the ninth most important industry in the State and is largely concerned with the manufacture of jewellery, silverware etc. In the rural areas no power at all is used in minor group 393, 79 per cent of all units being single person establishments and the remainder 2-5 person units. Making of lac bangles (399.4) is a numerically important industry in rural areas and is chiefly in evidence in Rewa, Jabalpur, Indore and Bhopal Divisions. Its economic importance, however, is slight. Minor group 394 (musical instruments) is mainly concentrated in the rural areas of Bilaspur (Bilaspur and Raigarh districts) and Raipur (Raipur) Divisions where it is the virtual monopoly of the Ghasia community. They specialise in percussions, using animal skins or linings in baja, mandar, dholak, dungi etc. The majority of the units are single-person and the remainder 2-5 person. The majority of units in urban areas are concerned with jewellery, the proportion of units being related to the population. Most urban units are small.

Madras

The following is a list of the most common industries of the State graded by number of establishments and number of workers.

The 14 numerically most important industries in Madras, 1961

ISIC Minor Group	Description	Number of establishments		Number of workers	
		Rural	Urban	Rural	Urban
235	Handloom	41,857	43,228	108,933	130,228
273	Tailoring	4,537	11,748	25,254	
393	Jewellery	4,777	7,797	11,596	24,254
388	Cycle repairing	4,477	5,937		6,119
200	Foodgrains	4,607	4,229	22,097	25,651
369	Sundry hardwares	5,283	3,438		16,164
264	Silk handloom	2,326	2,567	7,679	8,508
220	Bidi	871	2,257	8,050	20,085
384	Motor vehicles	69	1,653	1,094	22,492
205	Bakery	271	1,269	984	4,461
302	Printing	43	1,314	270	15,069
350	Pottery	2,773	620	7,076	1,672
288	Cork, bamboo	2,282	513	4,974	1,463
282	Carpentry	1,647	704	3,317	2,543

The spaces for the number of workers that are left blank in the above statement are those in which the number of workers computed worked out at less than one per establishment. This leads to the conclusion that information about number of workers—presumably mostly one—was not recorded by the enumerator leading to a shortfall in the account of workers in the particular industry.

Regional distribution of those industries in which more than 500 workers are employed in each ISIC minor group.

ISIC Major Group 20 : Foodstuffs

Minor group 200 (milling of food grains) is important in the rural and urban areas of all districts except Nilgiri. Minor group 201 (sugar mills) is important only in the rural and urban areas of Tiruchirapalli. Minor groups 202 (indigenous sugar) and 207 (edible oils) are important in the rural areas of Coimbatore, while 202 (indigenous sugar) is important in rural areas of Kanyakumari and 207 is important in the urban areas of Salem, Coimbatore and Madurai. Minor group 209 (confectionery) employs large numbers of workers only in the rural areas of Salem, Madras city and the urban areas of Madurai and Tiruchirapalli.

ISIC Major Group 21 : Beverages

Minor group 217 (tea) is found in both rural and urban areas of Nilgiri and the urban areas of Coimbatore. Minor group 218 (coffee) claims a fair number of workers in the rural areas of Madurai and the urban areas of Coimbatore.

ISIC Major Group 22 : Tobacco products

Sizable numbers of Bidi workers (minor group 220) are found in the rural areas of Chingleput, North Arcot and Tirunelveli and in the urban areas of Madras city, Chingleput, North Arcot, Salem, Coimbatore, Tiruchirapalli and Tirunelveli. Cigar and cheroot workers (minor group 221) are found in considerable numbers only in the urban areas of Tiruchirapalli and Thanjavur while cigarette workers (minor group 222) are concentrated in the rural areas of Nilgiri.

ISIC Major Group 23 : Textile-Cotton

Minor group 230 (cotton ginning, cleaning, pressing and baling) is concentrated in rural Coimbatore and Tirunelveli but obtains in urban Salem, Coimbatore, Ramanathapuram and Tirunelveli. While cotton spinning and weaving in mills (minor group 232) is concentrated in the rural areas of Coimbatore, Tiruchirapalli and Tirunelveli it extends to the urban areas of Salem, Coimbatore, Madurai, Ramanathapuram, Tirunelveli and Kanyakumari. Cotton dyeing and bleaching

(minor group 233) is confined mainly to urban Salem, Coimbatore and Madurai. Cotton weaving in powerlooms (minor group 234) is much in evidence in rural Coimbatore and Madurai and in urban Salem, Coimbatore and Madurai. Cotton weaving in handlooms (minor group 235) is concentrated mainly in rural Chingleput, North Arcot, South Arcot, Salem, Coimbatore, Tiruchirapalli and Tirunelveli but is widely and heavily distributed in the urban areas of all districts except Nilgiri. Minor group 236 (khadi textile in handlooms) is concentrated in rural Coimbatore alone. Cotton cordage, rope and twine (minor group 239) is concentrated mostly in urban North Arcot, Madurai and Tirunelveli.

Thus, barring handlooms (235), this major group is mostly concentrated in the rural areas of Coimbatore and to a smaller extent of Salem, Tirunelveli and in Madras city and the urban areas of Salem, Coimbatore, Madurai and Tiruchirapalli.

ISIC Major Groups 24 and 25 : Textile-Jute and Wool

These are not greatly in evidence in Madras State.

ISIC Major Group 26 : Textile-Silk

Weaving of silk textiles by powerloom (minor group 263) is confined mainly to urban Salem. Weaving of silk textiles by handloom (minor group 264) is concentrated in the rural and urban areas of North Arcot, Salem and Thanjavur.

ISIC Major Group 27 : Textile-Miscellaneous

Carpet weaving (minor group 270) is found mainly in rural Salem and Coimbatore and urban Salem and Tiruchirapalli. Hosiery and knitted fabrics (271) is again mainly concentrated in urban Coimbatore. Tailoring of wearing apparel (273) is concentrated mainly in Madras city and urban areas of Chingleput, North Arcot (both for 273 and 274), South Arcot, Salem, Coimbatore (both for 273 and 274), Tiruchirapalli and Thanjavur.

ISIC Major Group 28 : Wood and wood products

Wooden furniture (281) is mainly done in Madras city. Structural wooden goods (minor group 282) are concentrated in the rural areas of Thanjavur and Tirunelveli and urban Salem.

ISIC Major Group 29 : Paper and paper products

This is not of great importance in Madras State.

ISIC Major Group 30 : Printing and publishing

Printing and publishing of newspapers, periodicals (300) and books (301) is concentrated in Madras city while miscellaneous printing (302) is widely found in the urban areas of all districts except North Arcot, South Arcot, Nilgiri, Tirunelveli and Kanyakumari.

ISIC Major Group 31 : Leather and leather products

Currying, tanning and finishing of hides and skins and preparation of finished leather (minor group 310) obtains in rural Chingleput and North Arcot and in urban areas of Chingleput, North Arcot and Coimbatore.

ISIC Major Group 32 : Rubber, petroleum and coal

Manufacture of tyres and tubes (320) obtains only in urban Chingleput.

ISIC Major Group 33 : Chemicals and chemical products

Manufacture of basic industrial chemicals (330) is concentrated in rural Salem and Madras city; dyes, paints, colours and varnishes (331) in Madras city; fertilizers (332) in urban North Arcot; matches (334) in rural Ramanathapuram and urban Chingleput, Ramanathapuram and Tirunelveli; medicines, pharmaceutical chemicals etc. (335) in Madras city and urban Coimbatore.

ISIC Major Group 34-35 : Non-metallic mineral products

ISIC Major Group 34

Manufacture of structural clay products such as bricks and tiles (340) is

concentrated in rural and urban Chingleput; cement and cement products (341) in rural Salem, Ramanathapuram and Tirunelveli and urban Coimbatore.

ISIC Major Group 35

Earthenware and earthen pottery (350) is mainly manufactured in rural North Arcot, Salem, Coimbatore, Tiruchirapalli, Thanjavur and Tirunelveli.

ISIC Major Group 36 : Basic metals except machinery and transport equipment

Smelting, refining, rolling and conversion into basic forms of iron and steel (360) is mainly undertaken in Madras city and urban North Arcot. Non-ferrous metals (361) and structural steel products such as joist, rail, sheet plate (363) and iron and steel furniture (364) are wrought mainly in Madras city. Brass and bell metal (365) are concentrated mainly in rural and urban Coimbatore, Madras city and urban Tirunelveli. Aluminium (366), products of other metals like tin (367) and enamelling, galvanising, plating, polishing etc. (368) are mainly undertaken in Madras city. Sundry hardware (369) is undertaken extensively in the rural areas of all districts except Nilgiri and the urban areas of all districts except South Arcot, Nilgiri and Kanyakumari.

ISIC Major Group 37 : Machinery and transport equipment

This major group is mainly urban based. Manufacture and assembly of prime movers (371) is undertaken mainly in Madras city. Heavy electrical machinery (374) is concentrated in Salem and Coimbatore. Manufacture of other electrical machinery (379) is concentrated in Madras city and Chingleput.

ISIC Major Group 38 : Transport equipment

All the minor groups except 385 (bicycles, tricycles and their accessories) are mainly concentrated in Madras city. Minor groups 384 and 388 are scattered over the urban areas of many districts, notably Madras city, North Arcot, Salem, Coimbatore, Tiruchirapalli and Thanjavur, while 384 extends also to urban Chingleput, Madurai, Ramanathapuram and Tirunelveli. Minor group 389 (animal and handdrawn vehicles) obtains mainly in rural Coimbatore.

ISIC Major Group 39 : Miscellaneous manufacturing

While minor group 393 (jewellery) is extensive over rural and urban areas of most districts, the other minor groups (391 : scientific, medical and surgical instruments, equipment and supplies and 399 : miscellaneous) are mainly confined to Madras city and 399 extends to urban areas of Coimbatore.

All Groups

Thus, so far as rural areas are concerned, the greatest concentrations of industrial workers occur, in order of importance of diversity, in Coimbatore, Tirunelveli, Salem, North Arcot and Thanjavur, Tiruchirapalli, Kanyakumari, Chingleput and Ramanathapuram, Madurai and finally South Arcot and Nilgiri. So far as urban areas are concerned the greatest concentration and diversity occurs in Madras city. The pattern is as follows :

Concentration and diversity of workers in minor groups of industries in urban areas of Madras

	Minor groups 200-341 (food processing to non-metallic minerals) number of minor groups	Minor groups 360-399 (metals, machinery, equipment and miscellaneous) number of minor groups
Madras City	15	20
Urban Chingleput ..	9	4
Urban North Arcot	9	5
Urban South Arcot ..	3	1
Urban Salem ..	13	5
Urban Coimbatore ..	17	7
Urban Nilgiri. ..	15	..
Urban Madurai ..	8	4
Urban Tiruchirapalli	8	4
Urban Thanjavur ..	6	5
Urban Ramanathapuram	6	3
Urban Tirunelveli ..	7	4
Urban Kanyakumari	4	..

Sri Nambiar, Census Superintendent of Madras, has made a brief review of the development of electricity in the State which is very relevant in appreciating the rapid promotion of industry in rural and urban areas.

Before 1929 power development was mainly confined to the thermal station at Madras city and the hydro-electric plant at Kateri (Nilgiri). The Pykara hydro-electric scheme in 1929 ushered in a new era of power development in Madras.

The following statement gives the picture of the decade 1951-61 :

Development of electricity in Madras, 1951-61

	March 1951	March 1956	March 1961
Generation			
Installed generating capacity MW ..	156	256	571
Aggregate demand MW	130	208	448
Units generated (million)	630	1,053	2,213
Transmission			
High tension lines miles	4,355	7,343	15,121
Low tension lines miles	3,580	8,128	22,095
Distribution			
Consumers (in thousands)	250	426	770
Substations	1,647	3,862	10,191
Rural electrification			
Villages and hamlets electrified	1,613	3,320	10,760
Agricultural pump sets connected	14,373	32,440	117,697
Finance			
Capital out (million Rs.) ..	233.3	540·1	1,331.9
Gross revenue (million Rs.) ..	31·8	59·4	152·9

The distribution of the power supply is given in the following statement :

Consumption of electricity by use 1951-61

End of year	Domestic fuel and lighting	Municipalities	Licenses	Commercial and industrial use	Railway and traction	Others
1951	54,580	43,212	130,419	115,669	24,660	60,651
1956	118,118	39,341	167,936	178,895	31,140	135,062
1961	209,842	46,013	146,335	402,885	33,345	456,123

Commercial and industrial power use made a genuine great leap forward in the Second Plan period (225 per cent increase).

The entire State is served by an integrated power grid from thermal and hydro-electric generating stations as follows :

Sources of electricity—Madras

	kWh.
1 Pykara	70,200
2 Moyar	36,000
3 Mettur	40,000
4 Papanasam	28,000
5 Periyar	105,000
6 Kundah I (2 thermal power stations)	40,000
7 Madras	98,500
8 Madurai	14,000
	571,700

The State Government wish to complete three existing schemes—Periyar, Kundah I and II and Sandynallah Reservoir—at a total cost of Rs. 32 million. It has launched 8 new schemes with the object of arriving at a total installed capacity of 1,131 MW by 1966 at an additional cost of Rs. 1,002 million in the Third Plan.

New schemes to be completed during Third Plan Period 1961-66

New Electricity Schemes in Madras 1961-66

Schemes	Provision (in million Rs.)	Output in MW
Carried over		571
1 Mettur Tunnel Hydro-electric Scheme ..	58.0	100
2 Kundah (III Stage) ..	230.6	245
3 Periyar Hydro-electric Scheme (II Stage) ..	9·4	35
4 Annamalai Project (Parambikulam) ..	50·0	180
5 Transmission and Distribution ..	300·0	..
6 Rural electrification	300·0	
7 Loan to Licensees ..	20.0	
8 Investigations of new Schemes	2·0	
	970·0	**1,131**

The Census Superintendent of Madras has worked out two interesting tables on the use of sources of power in cities and towns of population 50,000 and above. The table shows the very low proportion of population even in the large towns and that in a State avowedly one of the most advanced in electricity, working in electrically operated industries.

Estimate of proportion of units and workers using electricity in the cities and towns above 50,000 of Madras State

City or Town	Population	Units using electricity per 1,000 of all workshops and factories	Number of workers working on some kind of power	Number of workers using electricity	Column 5 as percentage of column 4
1	2	3	4	5	6
1 Madras city	1,729,141	152	61,256	58,576	96
2 Madurai	424,810	78	19,273	19,109	99
3 Coimbatore	286,305	105	16,524	16,439	99
4 Tiruchirapalli	249,862	134	3,047	2,965	97
5 Salem	249,145	51	5,380	4,323	80
6 Tuticorin	124,230	189	4,441	4,418	99
7 Vellore	113,742	83	802	775	97
8 Thanjavur	111,099	81	910	858	94
9 Nagercoil	106,207	70	1,376	1,298	94
10 Dindigul	92,947	156	2,653	2,621	99
11 Kanchipuram	92,714	135	628	604	96
12 Kumbakonam	92,581	101	2,654	2,572	97
13 Tirunelveli	87,988	105	1,157	1,067	92
14 Valparai	80,023	180	1,982	1,881	95
15 Tiruppur	79,773	215	9,562	9,408	98
16 Cuddalore	79,168	56	687	504	73
17 Erode	73,762	174	1,471	1,463	99
18 Rajapalayam	71,203	141	4,226	4,198	99
19 Nagapattinam	59,063	91	1,211	1,157	96
20 Virdunagar	54,827	204	1,654	1,508	91
21 Pollachi	54,369	168	1,250	1,130	90
22 Mayuram	51,393	75	164	125	76
23 Palayamcottai	51,002	64	927	926	100
24 Karur	50,564	80	713	702	98
25 Pudukottai	50,488	121	1,479	1,479	100
26 Gudiyatham	50,384	42	1,518	1,511	100
27 Aruppukkottai	50,200	35	412	348	84
28 Ootacamund	50,140	130	225	221	98

Maharashtra

Since the total number of workers in each range of employment was not separately calculated, the Census Superintendent of Maharashtra has estimated the total number of workers by taking the arithmetic mean of the ranges, lower range and taking the actual employment in the higher ranges from the Chief Inspector of Factories and arrived at a total of 1,212,210 workers engaged in these workshops and factories. By this method he concludes that while 63 per cent of all establishments are situated in the rural areas they employ only 31 per cent of all workers while although only 37 per cent of all establishments are situated in the urban areas they employ as much as 69 per cent of all workers. This reversal of ratios is the result of concentration of large factories in urban areas. Even among the urban areas, the Superintendent observes, the concentration is more in the 12 cities which together make 51·97 per cent of total workers engaged in workshops and factories. The highest concentration of large establishments is in Greater Bombay which alone has 468,101 or 39 per cent of all workers but only 26,023 or 8 per cent of all workshops and factories in the State. The concentration of large

factories in Greater Bombay will be evident from the following statement :

Size of employment	Total number of factories in the State	Total number of factories in Greater Bombay	Percentage in Greater Bombay
Total of 100 and over ..	828	505	61·0
100-499 ..	641	383	59·7
500-999 ..	77	45	58·4
1,000-4,999 ..	98	65	66·3
5,000+ ..	12	12	100·0

The concentration of workers in Greater Bombay is demonstrated by the following statement :

		Number of workers engaged in manufacturing	Percentage of workers
Maharashtra	Total	1,212,210	100·00
	Rural	376,508	31·06
	Urban	835,702	68·94
Greater Bombay	Urban	468,101	38·62

Estimate of registrable factories

The Census Superintendent has made an estimate of registrable factories in Maharashtra and compared it with the number actually registered in 1960. Leaving out those workshops in the 10-19 worker category which do not use power, his estimate of registrable factories for 1960 was 7,462. The number actually registered by the Chief Inspector of Factories, Maharashtra, was 7,819. Thus the number actually registered, being higher than the census estimate, shows that registration of factories is efficient in that State. The Census Superintendent accounts for a shortfall of 357 units in his 1960 census count by a number of factors. Firstly, the month of September, when the census was taken, is usually the lay-off season for cotton gins, presses, rice mills and sugar factories. Secondly, the houselists did not cover strictly military areas. Thirdly, registration of several hundred small units may have followed late in 1960.

Use of power

The statement shows the accelerated use of electricity in larger units of workshops and factories. The statement is deceptive inasmuch as although the ratio of numbers of establishments using no power at all is high, the number of workers using electricity as power goes up steadily with the size of the unit. This points to four conclusions : (a) that the economy of scale does not still suit the extensive use of electricity in single worker or 2-5 worker establishments; (b) small horsepower motors and proper machine tools to feed small units are still in very limited supply; (c) skill in handling electric motors and tools must still be limited which discourages the small investor from going in for electric installations; (d) the tariff rates for small users may still be unattractive. The table further shows that the use of industrial electricity is still woefully small in rural areas (0·74 per cent in one way and 8·04 per cent in another of all industrial units) urban areas not being so very good either in absolute terms, although the average for urban is depressed by the multiplicity of units in the single worker and 2-5 worker sector. Liquid fuel, mostly diesel and kerosene is more popular in rural than urban areas. Liquid fuel in rural areas accounts for 7 per cent of all industrial units and under 3 per cent of all urban units. For every 100 units of workshops and factories running on liquid fuel, 82 are in rural areas and only 18 in urban localities. 'No power' is most in evidence in workshops and factories employing up to 49 persons, after which it drops to 43 per cent in the range 50-99 workers and to 27 per cent in 100+. The descent in the proportions of units using no power in inverse relation to increase in the number of workers employed is as elegantly graded (93 : 89: 68 : 60 : 52 : 43 : 27) as the more steep ascent of units employing electricity in direct relation to increase in the number of workers engaged (2: 6: 27: 33: 40: 52 : 71), except for the steep jump from 6 to 27 from range 2-5 to 6-9. Although the last cell of figures in the above state-

ment suggests popularity of electricity among the single worker and 2-5 worker units, the encouraging proportions (22 and 38) are offset by the fact that the absolute number of units using electricity is very small. Liquid fuel holds its own very well in the single worker and 2-5 worker units. So do units working on solid fuel in units employing up to 19 persons after which the role of solid fuel disappears. Solid fuel has its steady but limited uses in certain types of industry. Units working on no power are, naturally enough, strongest in units employing up to 5 persons after which there is a very precipitous drop in the proportions.

Let us now have a look at those industries at least 10 per cent of which use either electricity or liquid fuel for power. The following statement gives the distribution per 1,000 of establishments classified by major groups under the ISIC and by type of power used wherever such use of power is observed in 10 per cent or more of establishments in that category :

Distribution of establishments by major groups of ISIC and by type of fuel used whenever such use is recorded in 10 *per cent or more of establishments in any industrial category*

ISIC Division and Major Group	Description	Type of fuel used per 1,000 of all establishments		Percentage distribution between rural and urban			
				Electricity		Liquid fuel	
		Electricity	Liquid fuel	Rural	Urban	Rural	Urban
2&3	Manufacturing	58	52	8·03	91·97	81·60	18·40
20	Foodstuffs	128	347	17·15	82·85	87·85	12·15
21	Beverages	259	30	3·08	96·92	14·70	85·30
23	Textile-Cotton	106	26	4·38	95·62	8·03	91·97
24	Textile-Jute	10	7	50·00	50·00	66·66	33·34
26	Textile-Silk	372	4	1·94	98·06	0	100·00
28	Wood and wood products ..	26	6	4·25	95·75	45·99	54·01
29	Paper and paper products ..	167	30	1·47	98·53	41·67	58·33
30	Printing and publishing ..	442	10	1·61	98·39	15·38	84·62
32	Rubber, petroleum, coal ..	374	12	0·78	99·22	0	100·00
33	Chemicals and Chemical products	280	16	3·12	96·78	35·14	64·86
34-35	Non-metallic mineral products	24	5	14·04	85·96	64·62	35·38
36	Basic metals	89	14	3·27	96·73	88·69	11·31
37	Machinery	671	46	4·83	95·17	41·05	58·95
38	Transport equipment	68	6	4·59	95·41	40·35	59·65
39	Miscellaneous	35	3	7·43	92·57	62·96	37·04

This statement has several heartening features. It shows that wherever electricity is used in any appreciable proportion of any industry it tends to hold the virtual monopoly particularly in urban areas. Even in rural areas the use of electricity is getting popular in 20 Foodstuffs, 24 Jute textiles, 34-35 Non-metallic mineral products. 37 Machinery and 39 Miscellaneous. Liquid fuel is extensively used in 20 Foodstuffs alone, mainly in the small husking and milling machines. The extensive use of liquid fuel in the urban areas in 21 Beverages, 23 Cotton textiles, 26 Silk textiles, 28 Wood and wood products, 29 Paper and paper products, 30 Printing and publishing, 32 Rubber, petroleum and coal products, 33 Chemicals and chemical products, 37 Machinery and 38 Transport equipment proves the extent to which this fuel still holds its own against the competitive claims of electricity.

Distribution of industries in the districts

ISIC Division 2 & 3 : Manufacturing

The statement on next page shows those districts which claim more than 30 per thousand of industrial establishments in the State.

Districts which contain more than 30 per thousand of all industrial establishments in the State engaged in manufacturing

	District	Number per 1,000 of all manufacturing establishments	Number per 1,000 workers engaged in manufacturing
1	Bhandara	160	106
2	Greater Bombay ..	81	386
3	Nagpur	80	67
4	Kolhapur	58	38
5	Poona	46	47
6	Sholapur	45	49
7	Chanda	45	23
8	Ahmadnagar	44	27
9	Satara	43	21
10	Nasik	40	35
11	Jalgaon	40	25
12	Sangli	37	18

The table gives an idea of the preponderance of small establishments. Nowhere except in Greater Bombay, Poona and Sholapur does the proportion of workers exceed that of workshops and factories.

ISIC Major Group 20 : Foodstuffs

Districts which contain more than 30 per thousand of all industrial establishments in the State engaged in the processing of foodstuffs.

	District	Number per 1,000 of all food processing establishments	Number per 1,000 workers engaged in food processing
1	Greater Bombay ..	72	170
2	Jalgaon	66	49
3	Poona	63	79
4	Bhandara	61	56
5	Ahmadnagar	60	60
6	Satara	57	38
7	Aurangabad	53	37
8	Sholapur	47	58
9	Nagpur	46	44
10	Nasik	44	44
11	Kolhapur	37	32
12	Amravati	37	28
13	Buldhana	36	30
14	Ratnagiri	35	25
15	Dhulia	30	35

ISIC Major Group 21 : Beverages

Districts which contain more than 30 per thousand of all industrial establishments in the State engaged in the beverage industry

	District	Number per 1,000 of all beverage establishments	Number per 1,000 workers engaged in beverage industries
1	Kolhapur	114	66
2	Greater Bombay ..	106	387
3	Ratnagiri	78	33
4	Chanda	71	40
5	Poona	66	69
6	Jalgaon	62	40
7	Sholapur	60	37
8	Nagpur	51	54
9	Sangli	49	30
10	Thana	41	30
11	Nasik	39	22
12	Akola	35	25
13	Dhulia	35	22
14	Ahmadnagar	31	48
15	Amravati	31	22

ISIC Major Group 22 : Tobacco

	District	Number per 1,000 of all tobacco industries	Number per 1,000 workers engaged in tobacco industries
1	Bhandara	866	707
2	Ratnagiri	35	17

The districts of Nasik (35), Ahmadnagar (32), Sholapur (44) and Nagpur (61) each claim more than 30 per thousand of all workers of the State in the tobacco industry although the proportion of establishments in each case is less than 10 per thousand.

ISIC Major Group 23 : Textile-Cotton

Districts which contain more than 30 per thousand of all industrial establishments in the State engaged in cotton textiles industry

	District	Number per 1,000 of all cotton textile industries	Number per 1,000 workers engaged in cotton textile industries
1	Nagpur	290	112
2	Sholapur	111	92
3	Bhandara	83	23
4	Nasik	67	45
5	Chanda	57	14
6	Kolhapur	52	37
7	Thana	43	35
8	Jalgaon	38	22
9	Ahmadnagar	35	12
10	Sangli	35	13

Although Greater Bombay has only 2·55 per cent of all cotton textile factories in Maharashtra it gives employment to 50·46 per cent of all textile workers in the State.

ISIC Major Group 24 : Textile-Jute

District	Number per 1,000 of all jute textile industries	Number per 1,000 workers engaged in jute textile industries
1 Sangli	430	368
2 Nasik	142	142
3 Chanda	115	85
4 Ahmadnagar	63	43
5 Buldhana	50	34
6 Aurangabad	33	31
7 Nagpur	31	35

ISIC Major Group 25 : Textile-Wool

District	Number per 1,000 of all wool industries	Number per 1,000 workers engaged in wool industries
1 Satara	196	158
2 Kolhapur	146	107
3 Sholapur	136	132
4 Nagpur	90	82
5 Nasik	76	76
6 Chanda	66	52
7 Ahmadnagar	44	48
8 Aurangabad	43	31
9 Poona	38	31
10 Nanded	38	31

Here again, as in cotton textiles, although Greater Bombay has only 0·28 per cent of all industrial workshops and factories working on wool in the State, it gives employment to 118 per 1,000 of all workers employed in 25 Wool.

ISIC Major Group 26 : Textile-Silk

Districts which contain more than 30 per thousand of all industrial establishments in the State engaged in silk textiles industry

District	Number per 1,000 of all silk textile industries	Number per 1,000 workers engaged in silk textile industries
1 Greater Bombay ..	306	741
2 Nasik	329	26
3 Bhandara	83	6
4 Thana	58	171
5 Nagpur	56	5
6 Satara	38	4
7 Jalgaon	34	2

ISIC Major Group 27 : Textile-Miscellaneous

District	Number per 1,000 of all miscellaneous textiles	Number per 1,000 workers engaged in miscellaneous textiles
1 Greater Bombay ..	90	208
2 Kolhapur	72	68
3 Satara	67	62
4 Bhandara	66	47
5 Nagpur	60	61
6 Jalgaon	52	41
7 Ahmadnagar	51	44
8 Poona	50	56
9 Sholapur	48	49
10 Sangli	46	36
11 Nasik	44	43
12 Amravati	42	32
13 Chanda	41	31
14 Buldhana	32	25
15 Akola	31	25

ISIC Major Group 28 : Wood and wood products

District	Number per 1,000 of all establishments in ISIC Major Group 28	Number per 1,000 workers in ISIC Major Group 28
1 Chanda	98	70
2 Bhandara	91	70
3 Nagpur	80	89
4 Kolhapur	80	65
5 Greater Bombay ..	55	213
6 Ratnagiri	54	39
7 Satara	46	35
8 Jalgaon	39	29
9 Nasik	36	33
10 Nanded	36	31
11 Sangli	36	27
12 Buldhana	34	23
13 Ahmadnagar	33	31
14 Yeotmal	32	22
15 Dhulia	31	24

ISIC Major Group 29 : Paper and paper products

District	Number per 1,000 of all establishments in ISIC Major Group 29	Number per 1,000 of all workers in ISIC Major Group 29
1 Greater Bombay ..	621	463
2 Poona	108	175
3 Nagpur	67	11
4 Thana	52	26

Although Chanda contains only 0·5 per cent of all workshops and factories for major group 29 in the State, it gives employment to 238 per 1,000 of all workers in this major group in Maharashtra.

ISIC Major Group 30 : Printing and publishing

District	Number per 1,000 of all establishments in ISIC Major Group 30	Number per 1,000 of all workers in ISIC Major Group 30
1 Greater Bombay ..	475	666
2 Poona	92	103
3 Nagpur	69	74
4 Sholapur	44	15
5 Kolhapur	36	13
6 Nasik	31	21

ISIC Major Group 31 : Leather and leather products

District	Number per 1,000 of all establishments in ISIC Major Group 31	Number per 1,000 of all workers in ISIC Major Group 31
1 Kolhapur	82	76
2 Ahmadnagar	75	67
3 Aurangabad	59	54
4 Satara	58	49
5 Greater Bombay ..	54	138
6 Poona	54	53
7 Nasik	53	44
8 Jalgaon	49	40
9 Sholapur	46	43
10 Chanda	45	39
11 Sangli	44	37
12 Buldhana	43	39
13 Osmanabad	42	40
14 Bhir	36	34
15 Nagpur	34	38
16 Ratnagiri	34	27

ISIC Major Group 32 : Rubber, petroleum, etc.

District	Number per 1,000 of all establishments in ISIC Major Group 32	Number per 1,000 of all workers in ISIC Major Group 32
1 Greater Bombay ..	553	724
2 Poona	94	93
3 Nagpur	64	8
4 Nasik	44	4

ISIC Major Group 33 : Chemicals and chemical products

District	Number per 1,000 of all establishments in ISIC Major Group 33	Number per 1,000 of all workers in ISIC Major Group 33
1 Greater Bombay ..	458	694
2 Poona	89	126
3 Nagpur	65	24
4 Thana	62	68
5 Nasik	59	17
6 Sholapur	49	10

ISIC Major Group 34-35 : Non-metallic mineral products other than coal

District	Number per 1,000 of all establishments in ISIC Major Group 34-35	Number per 1,000 of all workers in ISIC Major Group 34-35
1 Kolhapur	136	86
2 Satara	62	72
3 Nanded	55	38
4 Nagpur	53	46
5 Bhandara	49	41
6 Greater Bombay ..	48	293
7 Ahmadnagar	47	29
8 Sangli	46	27
9 Ratnagiri	44	21
10 Chanda	43	55
11 Jalgaon	42	22
12 Buldhana	38	19
13 Aurangabad	36	16
14 Poona	35	49
15 Akola	32	17
16 Osmanabad	31	16

ISIC Major Group 36 : Basic metals and their products except machinery and transport equipment

District	Number per 1,000 of all establishments in ISIC Major Group 36	Number per 1,000 of all workers in ISIC Major Group 36
1 Greater Bombay ..	149	608
2 Nagpur	76	38
3 Chanda	74	24
4 Poona	54	50
5 Kolhapur	49	22
6 Bhandara	45	22
7 Satara	44	23
8 Jalgaon	42	19
9 Amravati	40	15
10 Ahmadnagar	38	17
11 Ratnagiri	36	14
12 Sholapur	34	17
13 Dhulia	34	12
14 Nasik	34	15

ISIC Major Group 37 : Machinery and electrical equipment

District	Number per 1,000 of all establish-ments in ISIC Major Group 37	Number per 1,000 of all workers in ISIC Major Group 37
1 Greater Bombay ..	404	679
2 Kolhapur	126	71
3 Poona	111	93
4 Nagpur	42	16
5 Ahmadnagar	35	13
6 Thana	33	50
7 Jalgaon	31	6

ISIC Major Group 38 : Transport equipment

District	Number per 1,000 of all establish-ments in ISIC Major Group 38	Number per 1,000 of all workers in ISIC Major Group 38
1 Poona	128	80
2 Greater Bombay ..	124	547
3 Ahmadnagar	82	26
4 Nagpur	73	39
5 Kolhapur	69	25
6 Sangli	64	17
7 Sholapur	57	21
8 Nasik	50	51
9 Satara	47	17
10 Jalgaon	39	78
11 Dhulia	33	14
12 Akola	32	9

ISIC Major Group 39 : Miscellaneous

District	Number per 1,000 of all establish-ments in ISIC Major Group 39	Number per 1,000 of all workers in ISIC Major Group 39
1 Greater Bombay ..	151	402
2 Bhandara	74	45
3 Kolhapur	61	58
4 Poona	64	73
5 Nagpur	58	61
6 Chanda	58	30
7 Ahmadnagar	54	33
8 Ratnagiri	35	18
9 Sholapur	34	27
10 Parbhani	34	17
11 Aurangabad	33	20
12 Satara	33	18

Leaving out Bhandara as inflated by the large number of establishments engaged in bidi making, we find that industrially Greater Bombay is the King among all districts, not only in the number of persons employed but in the matter of all important industries both in their range of production and number of workshops and factories. While Greater Bombay leads by a long way, the other important districts in the order of ranking of establishments are Greater Bombay, Nagpur, Poona, Kolhapur, Nasik, Ahmadnagar, Satara, Jalgaon, Chanda, Sholapur, Bhandara, Sangli, Ratnagiri, Thana, Aurangabad, Buldhana, Amravati, Dhulia, Nanded, Akola, Osmanabad, Parbhani, Bhir, Yeotmal, Wardha and Kolaba. The important districts in the order of ranking of employment are Greater Bombay, Nagpur, Poona, Kolhapur, Nasik, Sholapur, Ahmadnagar, Satara, Jalgaon, Chanda, Bhandara, Thana, Ratnagiri, Sangli, Aurangabad, Buldhana, Amravati, Dhulia, Akola, Nanded, Osmanabad, Parbhani, Bhir, Yeotmal, Wardha and Kolaba. Maharashtra occupies quite a comfortable position in the comity of Indian States. There are few districts which have less than one per cent of the State's strength of workshops and factories in any major group of the ISIC.

Mysore

The following are the first fifteen industries which have the most numerous establishments in the State :

ISIC Minor Group	Description	Total	Rural	Urban
235	Cotton weaving in handlooms	14,268	6,317	7,951
273	Textile garments	11,301	4,370	6,931
220	Manufacture of bidi	9,907	6,368	3,539
200	Milling of grain	6,878	4,415	2,463
369	Sundry hardwares	6,556	5,174	1,382
393	Jewellery	5,563	2,871	2,692
045	Rearing of silkworms and production of cocoons and raw silk	5,173	4,858	315
350	Earthenware and earthen pottery	4,049	3,440	609
288	Cork, bamboo, cane articles	3,964	3,037	927
388	Repairing of bicycles	3,298	637	2,661
255	Wool weaving in handlooms	3,180	2,733	447
311	Shoes and footwear	2,648	1,628	1,020
289	Miscellaneous wood products	2,607	1,947	660
207	Edible oils and fats	1,376	802	574
234	Cotton weaving in powerlooms	1,254	98	1,156

ISIC Major Group 04 : Livestock and hunting

Of the 5,178 establishments under this major group nearly 80 per cent are found in Mysore district, and the remainder in Tumkur, Kolar and Bangalore.

ISIC Major Group 10 : Mining and quarrying

The total number of persons in gold mining is 5,794. The Kolar Gold Fields employ 3,794. The gold mines at Hatti (rural) is now connected to the Tungabhadra grid.

ISIC Major Group 20 : Foodstuffs

This industry is extensively distributed all over the State. Minor group 200 'flour milling has become almost ubiquitous'. The largest number of mills are situated in Dharwar, Belgaum and Bijapur. The distribution of mills using power is as follows :

	Rural	Urban
Number of establishments	4,415	2,463
Number using electricity	1,382	1,790
Liquid fuel	2,670	497
Solid fuel (husk)	3	11

ISIC Minor Group 201

There are seven sugar mills in the State, 5 in rural areas and 2 in urban. These sugar mills employ about 5,000 workers in the mills alone.

The next important minor group is 207 (oil milling). This too is extensive in Mysore. The extent of power use is shown below :

ISIC Minor Group 207

	Rural	Urban
Number of establishments	862	574
Number using electricity	21	177
Liquid fuel	36	82
Other power (bullock)	417	48

ISIC Major Group 21 : Beverages

This industry is widely distributed over the State except Bidar and Gulbarga. Minor group 214 (aerated waters) is distributed over the State. Minor group 218 (coffee curing in factories) uses much power. A large number of units are in South Kanara.

ISIC Minor Group 218

	Rural	Urban
Number of establishments	73	242
Number using electricity	28	190
Liquid fuel	22	1
Solid fuel		6

ISIC Major Group 22 : Tobacco

Establishments under this major group are found in all districts. Their number however is very small in Chikmagalur, Coorg, Hassan and Shimoga. These districts are short of labour and draw seasonal labour heavily from other districts for normal cultivation work. Very little power is used but much solid fuel is used for curing virginia tobacco.

ISIC Major Group 23 : Textile-Cotton

Minor group 230 (cotton ginning, baling, pressing) is quite important in the western districts of Mysore. Most of the presses run on liquid fuel. Minor group 234 (cotton weaving in powerlooms) is extensive and electricity is almost the sole source of power in this minor group. The most important minor group is 235 (cotton weaving in handlooms) which is heavily concentrated in the districts of Bangalore, Belgaum, Bijapur, Dharwar and Tumkur. Bijapur alone accounts for nearly a third of the total number of handlooms in the State.

ISIC Major Group 25 : Textile-Wool

This industry is concentrated in Tumkur, which claims more than 60 per cent of all establishments, Chitradurga, Mysore and Dharwar. Wool weaving in handlooms (minor group 255) is important and accounts for more than 99 per cent of all units in the major group. All woollen handlooms run without power.

ISIC Major Group 26 : Textile-Silk

This industry is prevalent in Bangalore, which accounts for nearly 75 per cent of all units, Mysore, Kolar, Tumkur, Chitradurga and Belgaum. Minor group 260—spinning and weaving of silk textiles in mills. The most important mill is in Channapatna in Mandya. Electricity alone is used in all mills employing power. Minor group 262 (spinning of silk other than in mills) is distributed in the districts mentioned above. Minor group 263 (weaving of silk textiles in powerlooms) uses electricity in all units. By contrast none of the units in minor group 264 (weaving of silk textiles in handlooms) uses power. Minor group 266 (silk cordage, rope, twine) is mostly confined to urban areas.

ISIC Major Group 27 : Textile-Miscellaneous

This major group is most to be found in the urban areas of Bangalore, Belgaum, Dharwar and Tumkur.

ISIC Major Group 28 : Wood and wood products

The largest number of establishments are found in Mysore, Belgaum and Tumkur. The processing of leaves, mainly used for taking meals in, is done on an extensive scale in Tumkur : electricity is extensively used in minor group 280 (sawing and planing of wood).

ISIC Major Group 29 : Paper and paper products

There are 5 paper mills in the State out of which 4 are located in towns. All of them use electricity.

ISIC Major Group : 30 : Printing and publishing

There are 963 establishments under this major group of which 934 are in urban areas. Minor group 302 (printing in general) claims 702 establishments. Electricity is the largest source of power in urban areas being used in 312 out of 328 units.

ISIC Major Group 31 : Leather and leather products

Industries under this major group are concentrated in Belgaum, which claims more than 25 per cent of all units, Tumkur, Chitradurga, Mysore, Bangalore and Dharwar. Minor group 310 (curtying, tanning and finishing of hides and skins) is conducted in 360 establishments (271 rural and 89 urban). Minor group 311 (shoes and footwear) has 1,628 rural units and 1,020 urban. Neither minor group uses much power and the use of electricity is very limited.

ISIC Major Group 32 : Rubber, petroleum and coal products

Minor group 320 (tyres and tubes) is of some importance but it mostly concerned with vulcanising of rubber products and retreading of tyres (35 rural and 1,498 urban units). No rural unit uses electricity while only 19 urban units use power.

ISIC Major Group 33 : Chemicals and chemical products

This major group is located mainly in Bangalore district, which has 301 out of a total of 776 units, and in Mysore (119), South Kanara (80), Tumkur (61) and Kolar (60). From the point of view of establishments minor group 335 (medicines, pharmaceutical preparations, perfumes, cosmetics and other toilet preparations) has the largest number (31 rural and 382 urban). Only 15 of 18 urban workshops use electricity.

ISIC Major Group 34-35 : Non-metallic mineral products

This industry must keep close to the sources of raw material and is therefore concentrated in Belgaum, Tumkur, Mysore and South Kanara. Belgaum and South Kanara produce high quality bricks and roofing tiles (minor group 340 bricks and tiles). Minor group 341 (cement and cement products) claims 28 cement factories in the State. The Slag Cement Factory at Bhadravati is important. Minor group 350 (earthenware and earthen pottery) is the most numerous and, naturally enough, overwhelmingly rural based (3,440 rural, 609 urban). Electricity is little used.

ISIC Major Group 36 : Basic metals except machinery and transport equipment

The largest number of establishments in this major group is found in Belgaum (918) and Tumkur (729), but sundry hardware (minor group 369) is fairly common throughout the State. The pride of place goes to the Mysore Iron and Steel Works at Bhadravati (minor group 360), employing 5,136 persons.

ISIC Major Group 37 : Machinery and transport equipment

The districts in order of importance under this major group are Bangalore (177 out of a total of 350 for the State), Mysore (35), Kolar (18), Chitradurga (18), Belgaum (17), South Kanara (15), Tumkur (11) and Shimoga (11). Minor group 372 (machine tools) is urban based (1 rural, 43 urban). Electricity is used in 39 establishments (1 rural and 38 urban). Minor group 377 (electric storage batteries) claims several very large factories for a total of 26 establishments employ 3,141 persons, giving an average of nearly 120 per unit. Sixteen factories using electricity manufacture batteries. The remainder are engaged in making component parts. Minor group 378 (electronic equipment, such as radio, microphone etc.) claims 143 establishments (2 rural, 141 urban). One out of two rural and 32 urban workshops use electricity.

ISIC Major Group 38 : Transport equipment

This major group is mainly urban based, there being 744 rural establishments against 3,520 urban. Bangalore claims more than a quarter of all establishments (1,129) under this major group, followed by Mysore (624), Belgaum (469), Shimoga (280), South Kanara (273). Minor group 380 obviously refers to railway loco repair sheds. There are 39 units (10 rural and 29 urban), of which 38 (9 rural and 29 urban) use electricity. Minor group 384 (repair and service of motor vehicles) claims 709 establishments (37 rural and 672 urban).

ISIC Minor Group 384

	Total	Rural	Urban
Number of establishments	709	37	672
Number using electricity	159	5	154
Liquid fuel	11	2	9

Minor group 387 (manufacture and repair of air transport) claims eight establishments all of which employ numerous personnel. Minor group 388 (repair of bicycles) has 3,298 units of which 637 are rural and 2,661 urban. Electricity is used in only ten urban workshops.

ISIC Major Group 39 : Miscellaneous manufacturing

There are 7,212 establishments under this major group of which 3,065 are rural and 4,147 are urban. Tumkur claims the largest number (1,304) followed by

Bangalore (1,094). Districts having less than 100 establishments each are Bidar (64), Gulbarga (45) and Mandya (89). Manufacture of jewellery (minor group 393) accounts for nearly 55 per cent of all establishments in major group 39. In rural areas alone this minor group claims 90 per cent of the establishments.

ISIC Minor Group 393

	Rural	Urban
Number of establishments ..	2,871	2,692
Number using electricity ..	1	39
Number using liquid fuel ..	..	3

Minor group 399 comes next in order of number of workshops. It has 1,089 establishments (165 rural and 924 urban).

Minor Group 399

	Rural	Urban
Number of establishments ..	165	624
Number using electricity ..	10	189

Use of power

Electricity emerges as the most important source of power in Bangalore, Bellary, Chikmagalur, Chitradurga, Coorg, Hassan, Kolar, Mandya, Mysore, Shimoga, South Kanara and Tumkur. All these districts are connected by the hydro-electric grid system of the State.

Liquid fuel is the most important source of power in Belgaum, Bijapur, Dharwar, Gulbarga and Raichur districts. Belgaum, Bijapur and Gulbarga have not yet been connected to any grid. Whatever electricity they produce is thermal and mostly on diesel generators. Dharwar district was connected to the Jog grid about a decade ago but it is clear that those establishments which had already set up on diesel or kerosene still continue to do so. Raichur district has been only recently connected to the Tungabhadra grid.

At the end of the Second Five Year Plan, which almost coincided with the period of houselisting, the total installed capacity in the State was 208 MW out of which 197 MW was hydel and nearly 11 MW thermal.

The Third Five Year Plan contemplated an almost five-fold increase in the installed capacity to a total of 977 MW. The bulk of the increase will be in hydel, Sharavathi Valley Project contributing 712.8 MW, the Bhadra Hydro Project 33.2 MW (total of 746 MW) and the two thermal stations at Tungabhadra Dam together contributing an additional 23.4 MW (746+23.4+207.7=977.1).

Orissa

A total of 226,715 census houses was counted in 1960 being used as workshops or factories. Industries arranged in the numerical importance of establishments counted in the Housing Census made a good tally with the number of persons engaged in those industries in the ISIC scheme. The following industries are predominant in Orissa :

ISIC Minor Group	Description	Number of establishments counted in Housing Census	Number of persons working as per 1961 Census
040	Rearing of livestock	500	89,852
235	Cotton weaving in handlooms	54,659	88,536
288	Products of bamboo, cane etc.	48,232	85,594
209	Food products such as sweet-meat, chira, muri etc.	335	57,610
350	Manufacture of earthenware	24,857	35,329
369	Hardware products such as are produced in blacksmith's shops, or agricultural implements like ploughshare, khurpi, sickle, kudal etc. ..	17,147	23,647
393	Manufacture of jewellery, silverware, etc.	13,771	23,643
200	Husking and milling of rice, atta etc.	1,379	23,554
360	Smelting, refining of iron	18	20,773
207	Production of edible fats, oils, etc.	10,964	11,429

A brief analysis of the total of 226,715 establishments by the nature of energy by which they are run is given below :

Fuel used	Number of establishments
Electricity	659
Liquid fuel	1,179
Coal, wood and bagasse	65,761
Other power	10,972
No power	148,144

Factories or establishments run by 'no power' are the largest in number and include industries like weaving, carpentry, manufacture of bamboo made articles etc. Those run by coal, wood etc. include industries like blacksmithy, goldsmithy, manufacture of earthenware etc. Less than 50 per cent of the establishments are run by any kind of power in the districts of Sambalpur, Ganjam, Mayurbhanj, while between 50 and 70 per cent of establishments are run by some type of power in the districts of Kalahandi (70), Koraput (67), Baudh-Khondmals (67), Sundargarh (62), Dhenkanal (64), Puri (51), Keonjhar (58), Cuttack (61), Balasore (63). Curiously enough the only district which claims more than 70 per cent of its establishments run by power is Bolangir (72). The average for Orissa as a whole is 53 per cent.

Sambalpur contains the largest number of workshops and factories in the modern sense of the term followed by Cuttack. Either of them also contains a very large number of establishments devoted to traditional crafts. The number of weaving establishments in Sambalpur is large and their products famous throughout India. Cuttack, too, has numerous weaving establishments and also a large number of those turning out bamboo or cane articles.

The following is an analysis of factories and workshops by size of employment :

Employment	Number of factories and workshops
1 person	85,277
2-5 persons	134,839
6-9 ,, ...	5,345
10-19 ,, ...	875
20-49 ,, ...	252
50-99 ,, ...	74
100+ ,, ...	53

While the base is quite wide at 2-5 persons, the pyramid tapers too sharply at each successive range as a result of which the number of factories employing more than 100 persons is reduced to 53. These in turn are mainly concentrated in three districts : Sambalpur, Cuttack and Sundargarh. In Sambalpur the Hirakud Hydro-electric Project at the dam site favoured the establishments of factories of The Indian Aluminium Company and the Aluminium Industries at Hirakud, the Belpahar Refractories at Belpahar and the Orient Paper Mills at Brajarajnagar. In Cuttack, the important large sized factories are Sri Durga Glass Works and the Orissa Industries at Barang, the Kalinga Industries and the Government Press at Cuttack, and the Titaghur Paper Mills, the Orissa Textile Mills and the Kalinga Tubes, Ltd. at Chowdwar. Sundargarh claims the pride of place in heavy industries with the Hindustan Steel Works at Rourkela, the Bisra Stone Lime Factory at Birmitrapur, the Orissa Cement Ltd. and the Orissa Cement Refractories at Rajgangpur.

The industries which employ the largest number of persons in workshops powered by electricity are listed below :

ISIC Minor Group of Industry	Description	Number of persons in factories powered by electricity
200	Milling of rice, atta, flour, etc.	1,007
280	Sawing and planing of wood, etc.	1,172
301	Printing industry (Books)	1,777
360	Manufacture of iron and steel including smelting	15,640
369	Sundry hardwares ..	1,519

Sundargarh district alone, by virtue of Rourkela, claims 16,921 workers, while the printing industry (Books) is heavily concentrated in Cuttack, claiming 1,555 out of a total of 1,777 workers.

Punjab

The following are the ten most important industries in terms of number of establishments in the Punjab :

Rank	ISIC Minor group	Description	Industrial Units		Workers	
			Number	Percentage	Number	Percentage
1	200	Milling and husking of grain	15,005	22·41	34,310	12·05
2	289	Manufacture of articles from wood ..	6,522	9·74	14,901	5·23
3	311	Shoes and other leather goods	6,014	8·98	13,281	4·66
4	369	Sundry hardwares	5,662	8·46	17,729	6·22
5	393	Jewellery	4,549	6·80	9,157	3·21
6	273	Textile garments	4,392	6·56	9,541	3·35
7	388	Repair of bicycles	3,257	4·87	6,233	2·19
8	235	Cotton weaving in handlooms	2,393	3·58	7,949	2·79
9	370	Machinery and machine tools (other than electrical)	1,100	1·64	13,060	4·59
10	271	Hosiery and knitted fabrics	1,012	1·51	9,826	3·45

ISIC Major Group 20 : Foodstuffs

The total number of industrial establishments under this major group was 17,572 out of a total of 66,944 in Punjab. Minor group 200 (milling and husking of grain) claims 15,005 units : 2,239 in urban and 12,766 in rural areas. The rural units work mostly on liquid fuel. There are 13 factories in minor group 200 which employ more than 50 workers. Minor group 201 claims 11 sugar mills in the State of which 3 engage more than 100 persons each. The six important sugar mills are situated at Yamunanagar, Phagwara, Bhogpur, Dhuri, Rohtak and Panipat. In 1961-62 they gave employment to a total of 5,718 workers. A seventh mill at Murinda has recently gone into production, while two more co-operative sugar mills at Batala and Nawashahr are under construction. Manufacture of gur and shakkar (minor group 202) claimed 13 urban and 621 rural units mostly in the 2-5 person range. Minor group 205 (biscuits, bakery, etc.) claims one large factory, employing more than 100 workers, running on electricity. Butter, ghee, etc. (206) has 80 units of which 11 are in rural areas. Nabha in Patiala is an important centre of large-scale production. Edible oils and fats (207) are still produced in bullock-driven oil ghanis in rural areas, but in crushers powered by electricity in urban areas. Hydrogenated oil (207) is produced in 5 factories of which 3 employ more than 100 persons. Four of these factories are run on electricity and one on liquid fuel.

ISIC Major Group 21 : Bevérages

Distillation (minor group 210) is carried on in 9 distilleries or breweries of which 2 employ more than 100 persons each. All run on electricity. Aerated water, ice and ice cream units are widely distributed and run largely on electricity. Processing of tea (minor group 217) is undertaken by as many as 70 units (69 rural) of which only 6 employ more than 20 persons each. In as many as 57 units all work is done manually. The chief centres of tea are Palampur, Dharmsala and Baijnath.

ISIC Major Group 22 : Tobacco

This is of negligible importance in Punjab. Snuff is produced in Giddarbaha (Ferozepur).

ISIC Major Group 23 : Textile-Cotton

Minor group 230 (ginning, pressing, baling) is done in 157 rural and 315 urban units, of which 7 employ 100 persons or more and another 13 between 50 and 99 workers. In 1961-62 the State employed about 11,300 workers in 211 factories located at Fazilka, Abohar, Malout, Muktsar, Moga, Faridkot and Bhatinda. The distribution of presses by power is as follows :

Minor Group 230

	Total
Number of establishments	472
Number run on electricity	229
Number run on liquid fuel	140
Number run on steam	20
Number run on other power ..	16

Cotton spinning and weaving in mills (minor group 232) is mainly concentrated in 7 cotton textile mills : 2 at Bhiwani, and one each at Hissar, Phagwara, Abohar, Faridabad and Amritsar. The 7 mills employed a total of 9,200 workers. An 8th spinning and weaving mill, equipped with 12,000 spindles, has recently started production at Faridabad. Two more mills are under construction, one each at Malout (Mandi) and Rohtak. Cotton dyeing and bleaching (minor group 233) is done mostly in small units and so are cotton and khadi weaving in handlooms (minor groups 235 and 236).

ISIC Major Group 24 : Textile-Jute

There are only 18 units in the State working on jute. Two big units engage 10 to 19 workers.

ISIC Major Group 25 : Textile-Wool

This industry is concentrated at Dhariwal, Amritsar, Ludhiana, Kharar and Panipat. The large mills gave employment to 11,000 workers during 1961-62. The New Egerton Mills at Dhariwal, the Oriental Carpet Manufacturing Company, The Punjab Woollen Mills at Amritsar, The Bharat Woollen Mills at Verka, The Panipat Woollen and General Mills at Kharar and Oswal Woollen Mills at Ludhiana rank among the biggest concerns in India. Pashmina shawls are mainly produced in handlooms in Kulu, Palampur and Amritsar. Minor group 250 (wool baling and pressing) has 42 units, of which 6 employ 50 to 99 workers and 5 employ 100 or more.

ISIC Major Group 26 : Textile-Silk

There are 339 units, of which only 14 are in rural areas. Of the 325 urban units, 37 employ 20-49 workers, 4 have 50-99 workers and 3 employ 100 workers or more. The remaining 281 are small units employing fewer than 20 persons. There are 125 spinning and weaving mills (minor group 260), 47 units engaged in bleaching, dyeing and printing (261), 137 units of powerlooms (263), 23 of handlooms (264).

Powerlooms are concentrated at Amritsar, Ludhiana, Faridabad and Rohtak. There are about 1,200 units which produce cotton, artificial silk fabrics and woollen cloth. Between them they employ about 15,000 workers.

ISIC Major Group 27 : Textile-Miscellaneous

Minor group 270 (carpets) is of considerable importance in Punjab but the State can rightly boast of a leading position in minor group 271 (hosiery and knitted fabrics). There are about 1,000 big and small units (949 urban and 63 rural) mostly around Ludhiana city. Amritsar has the distinction of having two of the largest factories of machine embroidery (minor group 272). Jari, lace and gota work is carried on in Amritsar. Two more smaller units have been set up at Faridabad. Textile garments (273) are manufactured mostly in small units, but 5 establishments claim 20 to 99 workers each. Measuring tapes are produced in Ludhiana.

ISIC Major Group 28 : Wood and wood products

Sawing and planing of wood (280) has 553 urban and 216 rural units. All units, except 38, work on power, chiefly electricity and liquid fuel. Manufacture of wooden furniture and fixtures (281)

is conducted in 929 urban and 147 rural units. Structural wooden goods etc. (282) are produced in 696 units, of which only 8 employ more than 5 persons. As many as 3,396 units in urban areas and 1,183 in rural areas are engaged in miscellaneous types of carpentry trade (289). Ivory inlay work, is done in Hoshiarpur and Amritsar.

ISIC Major Group 29 : Paper and paper products

There is one big paper mill at Yamunanagar (District Ambala) and two medium sized mills at Faridabad. There are in all 9 units producing paper and paper board.

ISIC Major Group 30 : Printing and publishing

There are 554 urban and 23 rural units. Only 5 factories give employment to more than 100 workers each and 4 between 50 and 99. The others are small units. As many as 238 units work on no power.

ISIC Major Group 31 : Leather and leather products

There are 3,318 urban and 3,585 rural units. Tanning and finishing of hides and skins (310) is undertaken in 470 units, three-fifths of which are located in rural areas. Only 16 concerns have more than 9 workmen. The 2 largest ones are in the employment category of 50-99 workers. As many as 6,336 units are engaged in making and repairing of footwear (311 and 314).

ISIC Major Group 32 : Rubber, petroleum etc.

There are 100 urban and 12 rural workshops which prepare goods from natural and synthetic rubber. Two units employ more than 100 workers, 4 between 50 and 99 workers and 19 between 20 and 49 workers. Others are smaller units. Heavy tyres (320) are produced in Ballabgarh. Rubber footwear (321) is produced in Faridabad. Rubber goods (322) are manufactured in Jullundur, Amritsar, Batala, Kapurthala, Faridabad and Gurgaon.

ISIC Major Group 33 : Chemicals and chemical products

Chemicals and chemical products are manufactured in 478 urban and 124 rural units. Ten units among these employ more than 100 persons and 9 between 50 and 99. 118 are single person units, while another 346 employ 2-5 persons. In minor group 330, inorganic acids, sulphates, etc., are produced in Amritsar. There are 19 concerns in the State, of which one employs more than 100 persons. Dyes, colours and pigments (331) are produced in 27 units mostly in Amritsar, Ludhiana and Gurgaon; paints and varnishes in Amritsar. Fertilizers (332) are manufactured in Nangal. Antibiotics (335) are processed in Chandigarh. Minor group 336 (soap) claims the largest number of units, the number being 337, of which 5 are big units working on electricity having 10-49 workers. All other units work without power and 292 small units engage up to 5 workers. Fifty-four units manufacture turpentine and rosin (337) from pine resin, of which 13 are in rural areas. Two big units employ more than 100 workers, while another 5 employ between 20 and 99 workers. The industry is concentrated in Hoshiarpur and Pathankot. Plastic goods and moulding powder are manufactured in Faridabad and Amritsar. Emery powder is produced in Faridabad, foam compound in Ballabgarh, dhoop and burning incense in Jawalamukhi (Kangra) and Ferozepur, carbon dioxide in Faridabad (339).

ISIC Major Group 34-35 : Non-metallic mineral products

Manufacture of structural clay products such as bricks and tiles (340) is conducted in 144 units, all of which are worked manually. There are two cement factories (341) in the State, one at Surajpur near Chandigarh, the other at Charkhi Dadri in Mahendragarh. The Surajpur factory employed 1,503

workers during 1961-62 and the Mahendragarh factory 660 workers. Cement products were produced by 52 concerns. Twenty nine units were engaged in the manufacture of lime (342) and another 71 units manufacture of stoneware, structural stone goods etc. (343). Slate is quarried and dressed in Dharmsala, Palampur, Ateli (Mahendragarh) and Kund (Gurgaon).

Manufacture of earthenware and earthen pottery (350) is conducted in 592 rural and 164 urban establishments. Only one unit uses electricity. Crockery, stoneware, pottery and refractories (351, 344 and 340) are produced in Faridabad and other places. There are 12 establishments, 3 of which employ more than 100 persons each. Glass beads (353) are chiefly produced at Amritsar, Glass products of various kinds (357) are produced by 20 units, 7 of which employ electricity including one which engage more than 100 workers.

ISIC Major Group 36: Basic metals except machinery and transport equipment

There are 3,324 urban and 3,946 rural establishments under this major group. Punjab is rapidly forging ahead with rolling of iron into billets, blooms, tubes and rods (360). There are 54 units of which 29 have less than 20 persons each. There are 4 big units which employ more than 100 persons each. Only 6 out of the 54 units work without power. There are 88 re-rolling mills, of which 32 are located in Gobindgarh (Patiala). About 6,100 persons are employed in re-rolling. Smelting and refining of non-ferrous metals and alloys in basic form (361) is done in 62 units, most of which are small and work without power, there being only 2 big units employing 50-99 workers. Iron and steel furniture (364) is manufactured in 7 establishments. Manufacture of brass and bell metal products (365), chiefly utensils, is undertaken in 771 units, 561 of which are small employing up to 5 workers. There are 5 workshops employing 100 workers or more. The biggest centre of traditional brassware industry is Jagadhri, but considerable activity exists also at Rewari, Batala, Amritsar, Jandiala and Malerkotla. There are about 1,200 units employing about 6,400 workers. 195 units work on power. Brass cocks etc. are manufactured in Jullundur. There are 318 units working on metals other than iron, brass, bell metal and aluminium, e.g. tin cans (367) of which 296 units employ a limit of 5 persons, only one employing more than 100. Enamelling, galvanising, plating, polishing and welding (368) is undertaken by 372 units, only one of which employs 50-99 workers. A certain type of enamelware is the speciality of Ferozepur. Under minor group 369, water pipe fittings are manufactured in Jullundur, bolts and nuts in Jullundur, Ludhiana and Faridabad, wood and machine screws in Amritsar, Kapurthala, Jullundur and Ludhiana, pressure cookers in Gurgaon; ball-bearings in Goraya and Jullundur. Agricultural implements and machine tools have important centres of production in Batala, Ludhiana, Jullundur, Amritsar, Faridabad, Goraya, Phagwara, Rohtak, Panipat and Moga. This particular industry employs about 20,000 workers.

ISIC Major Group 37: Machinery and transport equipment

This major group has 206 rural and 1,249 urban workshops and factories, of which as many as 23 employ more than 100 persons, evidence of the position Punjab is rapidly gaining for itself in the field of industry.

There are 115 rural and 645 urban units engaged in manufacturing and assembling machinery other than electrical and textile machinery (370). As many as 141 units use no power. Air compressors, car lifts, car washers, hydraulic presses, etc., are produced in Faridabad.

Fifty-two units manufacture and assemble prime movers and boilers and diesel engines (371). Three factories employ more than 100 workmen each. Tractors and tractor parts are produced in Faridabad, diesel

engines and parts in Faridabad and Yamunanagar; manufacture of machine tools (372) is undertaken in 117 units, of which 52 employ 2-5 workers and 3 are large, employing more than 100 persons. Hosiery needles (372) are manufactured in Ludhiana. Punjab is one of the leading producers of sewing machines and sewing machine parts, keeping a total of about 3,800 workers engaged in this industry. The most important centres are Ludhiana, Amritsar, Batala, Goraya and Phagwara. There are 11 units which manufacture heavy electrical machinery such as motors, generators and transformers (374), of which 2 have more than 100 workmen. Air conditioners are manufactured in Faridabad. Manufacture of electric lamps and fans (375) is undertaken in 10 units, of which only 1 employs more than 100 persons. Automobile lamps and fluorescent fittings are manufactured in Faridabad. Insulated wires and cables (376) are manufactured by 13 units. Varnish cloth and other insulation materials are manufactured in Faridabad. Batteries of different types (377) are manufactured in 24 units. Electronic equipment including radios and sound equipment (378) are manufactured mainly in Faridabad, Amritsar, Jullundur and Ludhiana. There are 113 units in the State of which 101 are small establishments employing up to 5 workmen, and one which engages more than 100 persons. Electric horns (379) are manufactured in Faridabad.

The output of electric motors, fans, wires, cables and domestic appliances is steadily increasing. During 1961-62 there were 93 factories which employed 3,104 workers, the main centres of production being Faridabad, Amritsar, Jullundur, Patiala, Rajpura, Kapurthala and Phagwara.

ISIC Major Group 38 : Transport equipment

This major group claims 1,147 rural and 4,210 urban workshops and factories. The employment range is quite wide. Seventeen units employ 100 or more workers and another 30 employ between 50 and 99. As many as 939 units work on power. But the vast majority of them are small shops, 2,476 units being no bigger than single-man undertakings and another 2,271 employing 2-5 persons. Railway workshops (380) employ 10,500 workers in 36 factories. In minor group 383 (manufacture of motor vehicle engine parts and accessories) there are 50 units mostly located in Faridabad, Kapurthala, Bahadurgarh (Patiala), Ludhiana and Phagwara. Repairing and servicing of motor vehicles (384) is undertaken in 90 rural and 844 urban units, of which 770 units have up to 5 workmen while 4 workshops engage 100 persons or more. Electricity is used by 358 units. Manufacture of bicycles and tricycles and cycle parts (385) is a thriving industry. There are 148 rural and 582 urban establishments. There are 5 establishments which employ at least 100 workers. The industry as a whole employs over 11,600 workers and is concentrated in Sonepat, Ludhiana, Rajpura, Faridabad and Bahadurgarh. Ludhiana is a very busy centre. Animal and hand-driven vehicles (389) are manufactured in 298 establishments.

ISIC Major Group 39 : Miscellaneous manufacturing

There are 2,427 rural and 4,974 urban establishments. There are as many as 4,215 1-person units and 2,738 two to five persons workshops, only 4 units engage 100 or more workers. Power is used in 656 units. There are 17 workshops which produce optical instruments and lenses, opthalmic goods and photographic equipment and supplies (390). Scientific, medical and surgical instruments and appliances (391) are mainly produced at Ambala, and to a much smaller extent in Jullundur, Faridabad, Panipat, Rohtak and Patiala. The industry engages over 1,400 workers. Meters and instruments are produced at Chandigarh, measuring tapes at Ludhiana. Jewellery (393) is scattered all over the State and conducted mostly in small establishments. Assembling and repairing of clocks and watches (392) is done in 19 rural and 379 urban units, of

which 309 are single-person establishments and 86 employ from 2 to 5 persons. There are 3 rural and 56 urban units which manufacture and tune musical instruments (394) only one of which works with power. Another 25 units manufacture stationery articles (395) such as penholders and fountainpens, an important centre being Faridabad. Two of the factories employ 50-99 workers, while the other are smaller units. Jullundur and Batala take the pride of place in sports goods (396). There are about 260 units which give employment to about 5,400 workers. Most of these units engage 2-19 workers, although one of them is big enough to employ more than 100 workers. There are only 2 units which use electricity, the rest are run by hand. In minor group 399 torches, hurricane lanterns, stoves, etc. are mainly produced at Faridabad; carbon papers, typewriter ribbons, stamp pads, paper rolls, packs etc. also at Faridabad; oil seals at Aurangpur (Gurgaon); card clothing at Ludhiana; umbrella ribs at Ludhiana.

Factories engaging one hundred workers or more

There were 152 such factories according to the houselists. They are listed below:

Metals (54)	1 Machinery and electrical equipment	40
	2 Basic metals and their products except machinery and electrical equipment	14
Textiles (47)	1 Cotton textiles	16
	2 Woollen textiles	22
	3 Silk textiles	4
	4 Miscellaneous textiles ..	5
Foodstuffs	Flourmills	13
Chemicals	Chemicals and chemical products	10
Non-metallic minerals (7)	1 Cement and cement products	3
	2 Chinaware and glass products	4
Printing and publishing	3 Printing and publishing	5
	Wood and wood products	4
	Miscellaneous	4
	Beverages	3
	Paper	2
	Rubber products	2
	Shoe and leather footwear ..	1
	Total ..	**152**

Of these 152 factories, 123 are located in towns and 29 in rural areas close to towns; 139 work on electricity, 5 on steam, 5 on liquid fuel. The urban locations are shown below:

Factories employing 100 or more persons located in urban areas, Panjab

District	Town	Number
Amritsar	Amritsar	12
	Chheharta	10
Gurgaon	Faridabad	18
	Rewari	1
Gurdaspur	Dhariwal	12
	Batala	1
	Dalhousie	1
Ambala	Jagadhri	5
	Yamunanagar	3
	Ambala Cantonment ..	2
	Ambala	1
	Chandigarh	1
	Kalka	1
	Kharar	1
Ludhiana	Ludhiana	7
	Khanna	1
Jullundur	Jullundur	6
	Kartarpur	1
Patiala	Rajpura	4
	Patiala	2
	Nabha	1
Hoshiarpur	Naya Nangal	4
	Nangal	2
Hissar	Hissar	3
	Bhiwani	2
Karnal	Panipat	2
	Karnal	1
	Ladwa	1
	Nilokheri	1
Sangrur	Barnala	2
	Lehragaga	1
	Sunam	2
Kapurthala	Phagwara	4
Ferozepur	Ferozepur	1
	Ferozepur Cantonment ..	1
	Giddarbaha	1
	Abohar	1
Mahendragarh	Charkhi Dadri	1
Bhatinda	Bhatinda	1
Rohtak	Sonepat	1
	Total ..	**123**

The following are the locations of 29 rural factories employing 100 or more :

Factories employing 100 or more persons located in rural areas, Punjab

District	Locality	Number
Ludhiana	Near Ludhiana city ..	6
Gurgaon	.. ..	4
	Near Gurgaon	1
	Near Faridabad	3
Patiala	.. ..	4
	Near Nabha town	1
	Near Basi town	1
	Near Patiala city	2
Rohtak	.. ..	2
	Near Sonepat	1
Karnal	Near Panipat	2
Hoshiarpur	Near Nangal	2
Jullundur	Near Jullundur city ..	2
Sangrur	Near Malerkotla	2

Factories employing 100 or more persons located in rural areas, Punjab—concld.

District	Locality	Number
Kapurthala	.. ..	2
	Near Phagwara	1
	Near Kapurthala	1
Amritsar	Near Amritsar city ..	1
Ambala	Surajpur	1
Kangra	Near Palampur	1
	Total ..	**29**

Rajasthan

The following is the distribution of important industries in Rajasthan in descending order of the number of workshops and factories devoted to each :

Distribution by descending order of number of workshops and factories of important industries, Rajasthan

Rank	ISIC Minor Group	Description	Total	Percentage in rural areas	Rank in rural areas	Percentage in urban areas	Rank in urban areas	Rank by number of persons employed
1	2	3	4	5	6	7	8	9*
1	311	Shoes and leather footwear ..	8,083	76	1	24	3	2
2	200	Milling of atta and flour	5,676	62	2	38	2	1
3	393	Jewellery etc.	4,730	39	4	61	1	5
4	350	Earthenware and pottery ..	2,625	88	3	12	9	6
5	369	Sundry hardwares	2,035	51	10	49	5	3
6	207	Edible fats and oils	1,952	65	6	35	6	8
7	235	Cotton weaving in handlooms ..	1,829	82	5	18	8	9
8	281	Wooden furniture and fixtures	1,728	65	9	35	7	12
9	388	Repair of bicycles	1,463	15	12	85	4	17
10	236	Khadi weaving in handlooms ...	1,452	83	7	17	10	13
11	282	Structural wooden goods ..	1,366	85	8	15	12	18
12	273	Textile garments	963	75	11	25	11	20

*The minor group and rank of missing industries : 380 (4), 230 (7), 384 (10), 232 (11), 381 (14), 220 (15), 341 (16), 251 (19).

ISIC Major Group 20 : Foodstuffs

This major group includes two minor groups which count among the top ten industries in Rajasthan from all points of view: number of units either in rural or urban areas and number of persons employed. The industries under the major group employ 15·7 per cent of all working persons. These minor groups are 200 and 207.

Minor Group 200 : Milling of cereals

This industry comes second in the State from the point of number of units either in rural or urban areas and first from the number of persons employed. It is distributed extensively throughout the State except Jaisalmer. Churu has the highest proportion and Jaipur city has a large number of units.

Minor Group 207 : Milling of edible oils and fats

This industry comes sixth in the State from the point of number of units either in rural or urban areas and eighth from the number of persons employed. It is distributed throughout the State.

ISIC Major Group 21 : Beverages

This major group is insignificant in rural areas but has substantial adherents in the urban areas of Bikaner, Churu, Sirohi and Dungarpur.

ISIC Major Group 22 : Tobacco

The important minor group is 220 : manufacture of bidi. Tobacco products engaged 3,645 persons or 2·23 per cent of the total workers engaged in the State, of whom 3,541 were in bidi alone. Bidi-making is concentrated in the urban areas of Churu, Ajmer, Barmer, Bundi and Kota.

ISIC Major Group 23 : Textile-Cotton

This major group is third in order of numerical importance in the matter of employment (21,559) coming after major group 20 foodstuffs and major group 38 transport equipment. Minor group 235 cotton weaving in handlooms comes seventh. Barmer being the most important district in this respect and minor group 236 khadi weaving tenth in order of number of units. Minor group 230 cotton ginning, cleaning etc. claims 454 units distributed evenly in rural and urban areas. Minor group 233 cotton dyeing and bleaching is also important with 400 units. Minor group 237 printing of cotton textiles is done in 450 units. Minor group 232 cotton spinning and weaving in mills is conducted in 18 mills employing 4,210 persons. These mills are mostly located in Jaipur, Pali, Bhilwara, Ajmer and Ganganagar. The more important districts for handloom and khadi, dyeing and bleaching and printing are the rural areas of Bikaner, Sawai Madhopur, Jaipur, Ajmer, Tonk, Jodhpur and Barmer and the urban areas of Bikaner, Jhunjhunu, Alwar, Sawai Madhopur and Bundi.

ISIC Major Group 24 : Textile-Jute

Except for a small number of units concerned with jute in the rural areas of Bikaner, this major group is of little consequence in the State.

ISIC Major Group 25 : Textile-Wool

This major group has 424 workshops and factories, 248 in the rural and 176 in the urban areas, with a total employment of about 3,500 persons. The industry is particularly strong in the rural areas of Bikaner, Jaisalmer, Jodhpur and Barmer and the urban areas of Bikaner and Pali. Under minor group 250 wool baling and pressing there were 46 workshops and factories mainly in rural areas employing 481 persons. Under minor group 251 wool cleaning and processing (scouring), 139 units mainly in urban areas employing about 2.250 persons. Almost all wool weaving is done in handloom (minor group 255) of which there are 215 units, mostly in rural areas, employing 509 persons.

ISIC Major Group 26 : Textile-Silk

This major group is in evidence to some degree only in the rural and urban areas of Sawai Madhopur.

ISIC Major Group 27 : Textile-Miscellaneous

The important minor groups under this head are 271, manufacture of hosiery and 273 textile garments. Minor group 273 textile garments form numerically the 12th largest industry in the State and holds the 20th position in order of employment. This major group is concentrated in the rural areas of Alwar, Bharatpur, Ajmer, Nagaur, Bhilwara, Chitorgarh and Jhalawar and the urban areas of Bikaner, Sikar, Ajmer, Pali, Chitorgarh, Kota and Jhalawar.

ISIC Maior Group 28 : Wood and wood products

This major group has 4,347 units of which 3,187 are in rural and 1,160 in

urban areas, and provides employment to 10,173 persons or 6·23 per cent of the total number employed in the State. Minor group 280 sawing and planing of wood has 118 units employing 469 persons. Minor group 281 wooden furniture and fixtures has 1,728 units employing 4,197 persons and is the eighth numerically largest industry in the state and 12th from the point of employment. Minor group 282 structural wooden goods has 1,366 units employing 3,008 persons and is the 11th numerically largest industry and 18th from the point of employment. There are sizable numbers of workshops and factories under minor group 283. Wooden industrial goods other than transport equipment such as bobbins and similar equipment and fixtures (429 units) and under minor group 288 bamboo and canes ware etc. (277 units). This industry is greatly concentrated in Jaipur and Ajmer districts but is also stretched to Alwar. Bhilwara, Jodhpur, Pali, Sawai Madhopur and Udaipur.

ISIC Major Group 29 : Paper and paper products

This major group has a small number of workshops and factories in the rural areas of Jaipur, and the urban areas of Sawai Madhopur and Jodhpur.

ISIC Major Group 30 : Printing and publishing

This major group is mainly concentrated in the urban areas, mainly in the districts of Ganganagar, Churu, Alwar, Bharatpur, Sawai Madhopur, Jaipur, Ajmer, Jodhpur, Sirohi, Bhilwara, Udaipur, Chitorgarh, Dungarpur, Banswara, Bundi, Kota and Jhalawar. It was conducted in any appreciable degree only in the rural areas of Tonk.

ISIC Major Group 31 : Leather and leather products

This major group is fourth in point of importance of employment in the state, following major groups 20, 38 (transport) and 23 (cotton textiles). Major group 31 employs 11·55 per cent of the total persons employed in the various industries of the state. Minor group 311, manufacture of shoes and other leather footwear is numerically the most important industry in the state and stands 2nd in order of employment. Pali is the most important district for this minor group in the rural areas while the urban areas of Jalor specialise in leather craft. 'The state is rich in livestock and hides and skins required for the manufacture of shoes and other leather footwear are available in large quantities.' Minor group 310, currying, tanning and finishing of hides and skins has 683 units mostly in rural areas. Minor group 311 manufacture of shoes has 8,083 units, about threefourths of them in rural areas employing more than 16,000 persons. Minor group 313 leather products such as leather upholstery etc. accounts for 102 units employing 280 persons. The greatest concentration are in the districts of Jaipur, Pali, Bhilwara, Ajmer, Alwar, Barmer and Jhalawar.

ISIC Major Group 32 : Rubber, Petroleum and coal products

This major group is to be found almost entirely in the urban areas of Kota, Alwar, Jodhpur, Udaipur, Ganganagar, Jaipur and Jhalawar.

ISIC Major Group 33 : Chemicals and chemical products

Although no one particular minor group has any considerable adherent, this major group has a fair number of workshops and factories in the rural areas of Sawai Madhopur, Jaipur, Tonk, Bhilwara, Udaipur, Chitorgarh, Bundi and Jhalawar and in the urban areas of Ganganagar, Bikaner, Churu, Jhunjhunu, Alwar, Bharatpur, Jaipur, Ajmer, Tonk, Jodhpur, Sirohi, Udaipur, Chitorgarh, Dungarpur, Kota and Jhalawar. The most numerous establishments are in minor group 335 concerned with the manufacture of ayurvedic and indigenous medicines and pharmaceutical preparations. An industry in which

Rajasthan enjoys a virtual monopoly is the manufacture of rock salt (minor group 338). The other minor groups, notably minor group 330 (basic industrial chemicals) has several large workshops each.

ISIC Major Group 34-35 : Non-metallic mineral products

These two major groups 34 and 35 contain a numerically important minor group 350 earthenware and earthen pottery which has 6,820 units employing 7,277 persons and therefore occupies the 4th place in the state from the point of numerical superiority of units. In respect of employment the minor group 350 occupies the 6th place.

ISIC Major Group 34

Major group 34 is numerically more important in urban than rural areas. The number of establishments engaged in the manufacture of bricks and tiles (minor group 340) has been probably undercounted. The number of units engaged in the manufacture of cement and cement products is small (51—10 in rural and 41 in urban areas) but being large units employ as many as 3,052 persons. The manufacture of lime (minor group 342) is also conducted in large units. As may be expected there are numerous establishments (182 in all, of which 133 are in urban areas) engaged in the manufacture of stone goods, stone dressing and stone crushing, stone being extensively used as building material all over Rajasthan. Employment is also high (1,307) manufacture of stone images (minor group 345) is also extensively undertaken, not only for installations for worship in temples and private houses but for export to other States and as curios, marble being locally available in Jaipur and Makrana. Mica-splitting (minor group 348) is undertaken in several districts, chiefly in Bhilwara.

ISIC Major Group 35

Major group 35 contains the numerically most important minor group 350, earthenware and pottery. Manufacture of porcelain and its products (minor group 352) is undertaken mainly in the urban areas. Manufacture of glass bangles and beads (minor group 353) is extensively undertaken throughout the state more in rural than urban areas. Manufacture of earthen images, busts and statues (minor group 355) is mainly undertaken in towns. There is a large glass factory (minor group 357) in Dholpur of Bharatpur district which employs as many as 720 persons.

ISIC Major Group 36 : Basic metals and their products except machinery and transport equipment

Minor group 369 (sundry hardware) which is mainly blacksmithy is numerically the 5th most important industry in the state and occupies the 3rd place in the matter of employment of persons.

Minor group 360 manufacture of iron and steel, rolling etc. is mainly concerned with rerolling and apart from very small establishment engaged in turning out rods, etc. has nine registered factories employed in rerolling and employing as many as 700 persons. An important copper refining factory is coming up in Khettri and there is already a very important zinc mine and factory in Jawar. Minor group 362 (manufacture of armaments) is mainly concerned with the repair of firearms belonging to the numerous princely households in Rajasthan. Minor group 364 (iron and steel furniture) has as many as 38 workshops and factories employing 322 persons. Minor group 365 (brass and bell metal products) is extensive in urban areas accounting for as many as 204 units in towns employing 1,365 persons. Minor group 368 (enamelling, galvanising, plating etc.) is almost exclusively confined to urban areas.

Minor group 369 (sundry hardware such as G. I. pipe, wire net, bolts, screws, bucket, cutlery) employs as many as 15,124 persons. There are 7 registered factories engaged in the production of agricultural implements. The most important districts both from the point of numbers and employment are Jaipur

(518 units, employment 4,938), Ajmer (219 units, employment 7,318), Bhilwara (170 units, employment 480), Jodhpur (164 units, employment 533), Udaipur (161 units, employment 634), Nagaur (156 units, employment 475) and Bikaner (154 units, employment 453).

ISIC Major Group 37 : Machinery and electrical equipment

This major group has negligible proportions of units in the rural areas of Rajasthan except in the districts of Udaipur and Bundi, but has fair numbers in the urban areas of Ganganagar, Bikaner, Jhunjhunu, Jaipur, Ajmer, Udaipur, Dungarpur and Kota. Minor group 379 has one registered factory engaged in the manufacture of hydraulic ventilating equipment. Minor group 373 has 7 registered factories engaged in the manufacture of textile machinery and accessories. The number of workshops and factories in the other minor groups is small, employment being modest also.

ISIC Major Group 38 : Transport equipment

This major group employs the second largest proportion of labour (22,564 persons or 13·81 per cent), the largest being major group 20 foodstuffs. Minor group 380 manufacture, assembly and repair of locomotives, is one of the biggest employers of labour all of it being in the large scale sector. There are 11 large workshops in the State, of which 10 are in the Class I cities of Jaipur, Ajmer, Jodhpur and Bikaner and 1 in a Class III city which between them employ as many as 12,541 persons. Besides, there are smaller loco-repair shops in 24 other places all over the state. Minor group 381 (manufacture of wagons, coaches etc.) also has 16 large units of which 14 are in rural areas employing as many as 3,806 persons. The biggest centre is Ajmer.

While there is no unit manufacturing motor cars under minor group 383, assembling of motor vehicles of all types (minor group 382) has 9 workshops of which 8 are in urban areas, employing more than 500 persons. Repairing and servicing of motor vehicles (minor group 384) has as many as 633 workshops and factories, with 605 of them in the urban sector, employing 4,471 persons, giving it the 7th place in order of number of establishments in urban areas. As many as 24 of these motor workshops are registered factories, 23 of them being located in the Class I cities of Jaipur, Ajmer, Jodhpur and Bikaner. Minor group 385, manufacture of bicycles and accessories etc. has 74 units, all in urban areas of which 6 are registered. Minor group 388 repairing bicycles and tricycles is strikingly enough numerically the ninth most important industry in the State and the fourth most important in urban areas, claiming as many as 1,463 units. Minor group 389 (manufacture of other transport equipment, such as animal drawn and hand-drawn vehicles) has also as many as 58 workshops divided almost evenly between rural and urban areas.

ISIC Major Group 39: Miscellaneous manufacturing

The most important minor group is 393, Jewellery, which occupies the first place in urban areas, the 4th in rural areas and the 3rd place in all areas combined in order of number of establishments. It is also significant that from the point of employment it occupies the 5th place, claiming as many as 8,969 persons. Jaipur city is the most important centre, its Kundan-Mina work being justly famous. The other minor groups are insignificant besides 393, although assembling and repair of watches and clocks is done by 265 units.

The major groups in which power is extensively used either in rural or urban areas are : 20 foodstuffs; 21 beverages; 30 printing and publishing; 33 chemicals and chemical products; 34 and 35 non-metallic mineral products; 36 basic metals; 37 machinery (other than transport) and electrical equipment; 38 transport equipment and 39 miscellaneous manufacturing industries. The districts

in which more than 50 per cent of the establishments both in rural and urban areas are run on some fuel or power are Churu, Bharatpur, Nagaur, Sirohi, Udaipur, Dungarpur and Banswara. The districts in which more than 50 per cent of the urban units are run on power are Sawai Madhopur, Jaipur, Ajmer, Pali and Bhilwara. More than 50 per cent of rural units are run on power in the districts of Ganganagar, Jhunjhunu, Tonk, Bundi and Kota. Electricity is most used in the districts of Bikaner, Jaipur, Ajmer, Jodhpur, Udaipur, Kota, Ganganagar, Churu and Alwar. Liquid fuel in its turn is most used in Ganganagar, Alwar, Bharatpur, Sawai Madhopur, Jaipur, Sikar, Ajmer, Tonk, Nagaur, Pali, Bhilwara, Udaipur, Chitorgarh, Kota and Jhalawar. Solid fuel is most used in the districts of Bikaner, Alwar, Bharatpur, Sawai Madhopur, Jaipur, Ajmer, Jodhpur, Nagaur, Pali, Barmer, Bhilwara, Udaipur, Chitorgarh, Kota and Jhalawar.

The Census Superintendent of Rajasthan has compiled a unique table showing the number of persons employed by kind of fuel or power used. Part of the table is reproduced below:

Number of persons employed by kind of fuel or power used (arranged by diminishing order of employment)

ISIC Minor Group	Description	Number of units	Number of persons employed				
			Total	Electricity	Liquid fuel	Coal, wood and bagasse	Other power
1	2	3	4	5	6	7	8
200	Milling of atta and flour ..	5,676	18,085	4,268	13,792	6	..
311	Shoes and footwear	8,083	16,151			..	..
369	Sundry hardwares	2,035	15,124	6,644	8	8,463	..
380	Assembly and repair of locomotives	35	10,186	8,707	104	193	..
393	Jewellery	4,730	8,969	93	46	8,830	.
350	Earthenware and pottery ..	2,625	5,529			5,398	.
230	Cotton ginning etc.	454	5,217	1,864	1,989	352	..
207	Edible fats and oils ..	1,952	5,119	251	834		3,859
235	Cotton weaving in handlooms	1,829	5,041	8	137		..
384	Repairing and servicing of motor vehicles	633	4,471	1,856	1,211	55	.
232	Cotton spinning and weaving in mills ..	18	4,210	4,190	.		
281	Wooden furniture and fixtures	1,728	4,197	35	4		
236	Khadi textile	1,452	4,173	30	62	11	
381	Wagons, coaches etc. ..	16	3,806	3,700	4		
220	Bidi	361	3,541	7			
341	Cement and cement products	51	3,052	2,844	50	9	
388	Repair of bicycles and tricycles	1,463	3,038	27	..	1	
282	Structural wooden goods ..	1,366	3,008	30	12		
251	Wool cleaning and processing	139	2,247	226	1	73	
273	Textile garments	963	2,066	39	3		
310	Currying, tanning and finishing etc. ..	683	1,835	..	.	190	
209	Other food products such as sweetmeat	500	1,746	15	.	1,731	
365	Brass and bell metal	232	1,365	255	521	286	
343	Structural stone goods ..	182	1,307	54	728	2	
233	Cotton dyeing and bleaching ..	400	1,274	27	..	399	.
237	Printing of cotton textile ..	450	1,240	2	1	1	..
300	Printing and publishing of newspapers and periodicals	166	1,224	1,060	12	.	
272	Embroidery and crepe laces ..	332	1,173	237	46		
379	Electric machinery etc. ..	45	1,161	973		.	
399	Miscellaneous manufacture ..	459	1,106	97	33	182	.
270	Carpet etc.	77	1,066	79	9	19	.

It is an indication of the significant stride that Rajasthan has made towards modernisation that the greatest proportion of persons employed in industries using power is under electricity. The industries themselves, too, are significant: the repairing of locomotives and manufacture of wagons (minor groups 380 and 381) employing over 12,000 persons; sundry hardware (369) employing over 6,000 persons; flour mills (200) and cotton spinning and weaving (232) employing 4,000 persons each. Other important establishments using electricity and employing a sizable strength of workers are: cement factories (minor group 341) which employ more than 3,000 persons; printers and publishers (minor group 300, 301, 302) employing about 2,500 persons; cotton ginning, pressing and baling (minor group 230) and repairing and servicing of motor vehicles (minor group 384) which engage about 2,000 persons each.

Solid fuel (coal, wood, bagasse) keeps the second largest number of persons engaged in (1) jewellery and silverware (minor group 384) which engage about 9,000 persons (2) sundry hardware (369) employing over 8,000 persons and (3) earthenware and pottery (minor group 350) employing over 5,000 persons.

Industries run on liquid fuel were third in importance in order of employment provided by them. The largest industry run mainly on liquid fuel is the milling of cereals (minor group 200) which employs about 14,000 persons. Cotton ginning, cleaning, pressing and baling (minor group 230) employs about 2,000 persons. Repairing and servicing of motor vehicles (minor group 384) employs about 1,200 persons.

Industries run on 'other power' engage only a little over 4,000 persons in the state, of which as many as 3,859 are working in establishments producing oils (minor group 207), while the rest of the persons are employed in workshops doing enamelling, galvanising, plating, polishing and welding of metal products (minor group 368).

The following table gives the distribution of establishments according to fuel or power used and persons employed:

Kind of fuel or power used	Number of units		Number of persons employed	
	Number	Percentage	Number	Percentage
1	2	3	4	5
Electricity	2,678	13·32	44,690	44·56
Liquid fuel	4,776	23·75	20,731	20·67
Coal, wood and bagasse	10,798	53·71	30,754	30·67
Other power	1,853	9·22	4,111	4·10
Total of all fuels	**20,105**	**100·00**	**100,286**	**100·00**

The districts in which the largest number of workshops and factories employ more than 100 persons each and use electricity are:

Rank	District	Number of units	Number of persons employed	Number of persons in factories working on electricity
1	2	3	4	5
1	Ajmer	13	12,557	11,117
2	Jaipur	15	7,248	3,359
3	Jodhpur	6	3,663	3,454
4	Pali	5	3,639	3,244
5	Bikaner	7	2,815	2,603
6	Sawai Madhopur	1	2,250	2,250
7	Bharatpur	5	2,120	2,020
8	Bhilwara	2	1,723	1,500
9	Udaipur	8	1,519	707
10	Ganganagar	8	1,213	350
11	Kota	6	861	210
12	Bundi	3	827	574

The following districts have more than 3 per cent of all workshops and factories in the State :

Rank	District	Number of factories and workshops	Percentage to total	Number of persons employed	Percentage to total
1	2	3	4	5	6
1	Jaipur	8,502	19·23	32,781	20·06
2	Ajmer	3,776	8·54	23,787	14·56
3	Pali	3,071	6·95	9,618	5·88
4	Bhilwara	2,678	6·06	8,083	4·95
5	Jodhpur	2,234	5·05	9,448	5·78
6	Alwar	2,183	4·94	6,456	3·95
7	Udaipur	2,092	4·73	7,153	4·38
8	Bikaner	1,720	3·89	9,070	5·55
9	Sawai Madhopur	1,715	3·88	6,582	4·03
10	Chitorgarh	1,631	3·69	4,013	2·46
11	Barmer	1,583	3·58	3,468	2·12
12	Kota	1,553	3·51	5,625	3·44
13	Nagaur	1,494	3·38	4,404	2·69
14	Bharatpur	1,408	3·18	6,761	4·14

Except for Ganganagar which has 2·51 per cent or 1,111 workshops and factories employing 3·61 per cent or 5,904 workers there is no other district in Rajasthan which has less than 3 per cent of all workshops and factories but employs more than 3 per cent of all workers.

Uttar Pradesh

A. Registered factories

The total number of factories and workshops, registered or unregistered as factories under the Factories Act, listed in 1960 came to 240,832. As the account of Registered Factories in the houselists might not tally with that published by the Chief Inspector of Factories; their figures were taken from the official source. Every factory run on power employing 10 persons or more and every factory employing 20 persons or more is required to be registered. The following statement shows the distribution of Registered Factories by size of employment.

Distribution of registered factories by size of employment

Employment	Number of factories	Proportion to total registered factories
Less than 20	952	40·2
20— 49	788	33·2
50— 99	253	10·7
100— 499	255	15·9
500— 999	72	
1,000—4,999	45	
5,000+	4	
Total ..	**2,369**	**100·0**

The following table shows those districts in Uttar Pradesh which have more than 5,000 persons working in registered factories :

District	Persons working in registered factories	Number of registered factories	Average number per registered factory
Kanpur ..	70,661	354	200
Meerut ..	23,303	219	106
Lucknow ..	21,413	156	137
Agra ..	16,791	344	49
Gorakhpur ..	14,619	40	365
Saharanpur ..	12,059	71	170
Deoria ..	10,287	19	541
Aligarh ..	9,035	135	67
Allahabad ..	8,564	116	74
Muzaffarnagar	8,415	95	89
Bareilly ..	8,327	65	128
Varanasi ..	8,322	106	79
Rampur ..	5,045	17	297

Factory employment is highest in Kanpur, followed a long way behind by Meerut and Lucknow each of which has less than a third of Kanpur's workers. Agra has about as many registered factories as Kanpur but the average strength per factory in Agra is a quarter of Kanpur's. Most factories in Deoria are large sugar mills.

ISIC Major Group 20 : Foodstuffs other than sugar

This is the most important end-product in the largest number of registered factories in Uttar Pradesh. There is a total of 237 factories engaged in the milling, husking and processing of flour, rice and dal.

	Description	Number	Number of mills employing more than 100 persons
A.	Rice mills	120	..
	Dal mills	94	..
	Flour mills ..	23	3
	Sub-total ...	237	3
B.	Canning and preservation of fruits and vegetable mills	11	1
	Bakery mills ...	7	1
	Confectionery ...	1	..
	Dairy mills ...	8	1
	Sub-total ...	27	3
C.	Oil mills	100	14
	Hydrogenated oil	4	4
	Sub-total ..	104	18
	Total ..	368	24

The following are the most important districts for rice, flour and dal mills and oil mills. Rice mills are concentrated in Bahraich, Etawah and Mainpuri. Kanpur and Agra have the largest number of dal mills.

	District	Rice, flour, dal mills	Number of mills employing more than 100 workers each	Oil mills	Number of mills employing more than 100 workers
1	Kanpur	20	3	18	6
2	Aligarh	35	..	9	3
3	Etawah	28	..	4	..
4	Agra	16	..	16	2
5	Bahraich	25	..	1	..
6	Lucknow	10	1	3	1
7	Mainpuri	13	..	2	..
8	Varanasi	6	..	4	..
9	Saharanpur	10	..	1	..
10	Meerut	5	..	3	1
11	Allahabad	3	..	6	2
12	Gonda	11	..	1	..
13	Sitapur	6	..	5	..
14	Shahjahanpur	10	..	..	..

No other district in Uttar Pradesh has a total of 10 of both. Factories for canning and preservation of fruit are located in Kanpur (1), Etawah (1), Lucknow (2), Allahabad (2), Bareilly (1), Naini Tal (3) and Mathura (1). Bakery mills are found in Kanpur (4), Varanasi (2) and Saharanpur (1). Dairy factories are located in Kanpur (1), Aligarh (2), Lucknow (2) and Varanasi, Meerut and Allahabad (1 each). Hydrogenated oil factories are located in Kanpur (1) and Meerut (3). The lone confectionery factory is found in Kanpur.

ISIC Major Group 20 : Minor Groups 201 and 202 : Sugar and gur

Registered factories for the production of sugar, indigenous sugar and gur are the next most numerous in Uttar Pradesh, claiming a total of 327. They exist in "a belt covering Meerut and Rohilkhand Divisions and the northern districts of Lucknow, Faizabad and Gorakhpur Divisions. The greatest concentration of sugar mills is in Gorakhpur Division which has 23 and thereafter in Meerut Division which has 18. Among the districts, Deoria, Meerut, Gorakhpur, Muzaffarnagar, Saharanpur, Basti and Gonda are most important having among them 43 sugar mills out of the State's 71." The production of sugar in Uttar Pradesh accounts for just a little over half of that of the whole of India. For indigenous sugar, Muzaffarnagar is the most important district, closely followed

by Bijnor and Bareilly. Kheri, Moradabad, Shahjahanpur and Farrukhabad also produce indigenous sugar. Muzaffarnagar is on top for gur industry, Meerut, Bijnor and Shahjahanpur being also important.

Distribution of sugar industry factories in selected districts of Uttar Pradesh

	District	Sugar mills	Indigenous sugar	Gur	Total
1	Muzaffarnagar ..	4	30	47	81
2	Bijnor ..	3	27	9	39
3	Bareilly ..	2	24	..	26
4	Meerut ..	8	5	10	23
5	Shahjahanpur	1	13	9	23
6	Kheri ..	2	15	3	20
7	Moradabad	2	15	1	18
8	Saharanpur	4	7	3	14
9	Deoria ..	14	..	..	14
10	Farrukhabad	..	12	..	12
	24 other districts ..	31	18	8	57
	Total for Uttar Pradesh	**71**	**166**	**90**	**327**

Employment in sugar industry mills is high. The following statement gives the distribution by size of employment.

Distribution of sugar industry factories by size of employment

	Employment	Sugar	Indigenous sugar	Gur
1	Above 1,000 workers	17*		
2	500—999 workers	44		
3	100—499 workers	10		
4	More than 100 workers		2†	1‡

*Rampur (2), Pilibhit (1), Saharanpur (3), Muzaffarnagar (4), Meerut (2), Kheri (1), Sitapur (1), Gorakhpur (1), Deoria (2).

†Shahjahanpur and Farrukhabad.

‡Muzaffarnagar.

ISIC Major Group 21 : Beverages

There are 17 distilleries and breweries, 5 of which employ more than 100 workers each. Most of the distilleries are in the vicinity of sugar mills. Uttar Pradesh produces 6·9 per cent of India's total alcohol. There is one factory for soft drinks in Kanpur and 15 for processing tea (Dehra Dun 14 and 1 in Naini, Allahabad), 4 of which employ more than 100 workers each. There are 41 ice factories of which 1 employs more than 100 workers.

ISIC Major Group 22 : Tobacco

There is one cigarette factory in Saharanpur employing over 2,000 persons and 9 factories for snuff, zarda and other tobacco products (Varanasi 5, Lucknow 2, Farrukhabad and Kanpur 1 each) of which two employ more than 100 workers each. Varanasi is famous for its chewing tobacco.

ISIC Major Groups: 23, 24, 25, 26 and 27 : Cotton, jute, wool, silk and miscellaneous textiles

The following table gives the distribution of registered factories according to products and the districts having a total of 5 or more of all categories.

	District	Cotton ginning and baling	Cotton spinning and weaving	Jute	Woollen	Silk	Carpets	Others	Total
	1	2	3	4	5	6	7	8	9
1	Kanpur ..	1	14	2	3	..	..	22	42
2	Varanasi ..	..	2	5	..	8	4	5	24
3	Agra	1	3	..	2	..	3	9	18
4	Meerut ..	..	7	1	..	..	..	4	12
5	Mirzapur ..	..	2	..	3	..	2	1	8
6	Aligarh ..	4	2	..	..	..	..	..	6
7	Basti	..	5	..	..	...	...	..	5
	Total for Uttar Pradesh	**14**	**58**	**9**	**11**	**10**	**14**	**43**	**159**

Kanpur has a very long lead over Varanasi, Agra or Meerut. Wool weaving is done in Mirzapur mostly for carpets. Varanasi, Mirzapur, Agra and Shahjahanpur are famous for their carpets. Varanasi is of course unrivalled

in silk. Uttar Pradesh produces 6·6 per cent of India's total production of cloth and yarn.

Textile mills employing								
1 Cotton spinning and weaving								
	(*i*) 100— 499	persons	..	..	..	..	28	
	(*ii*) 500— 999	persons	..	..	..	..	6	
	(*iii*) 1,000—4,999	persons	..	..	..	..	11	Kanpur (7), Rampur, Saharanpur, Meerut and Aligarh (1 each)
	(*iv*) 5000+	persons	..	..	..	..	3	Kanpur
2 Jute mills								
	(*i*) 100+	persons	..	..	..	..	2	
	(*ii*) 1,000—4,999	persons	..	..	..	..	3	
3 Wool								
	(*i*) 100—499	persons	..	..	..	..	1	
	(*ii*) 1,000+	persons	..	..	..	..	1	Kanpur
4 Silk spinning and weaving								
	100+	persons	..	..	..	..	1	
5 Carpets								
	(*i*) 100—499	persons	..	..	..	..	4	
	(*ii*) 500—999	persons	..	..	..	..	1	

There is one rayon factory each in Kanpur and Meerut.

ISIC Major Groups: 28, 29 and 30: Wood, paper and printing

Kanpur, Saharanpur and Lucknow are important centres for manufacture of paper-board or paper. Handmade paper is produced on factory scale in 2 factories at Kalpi in Jalaun district, Meerut and Saharanpur are important for strawboard. Allahabad (56) leads by a long way in printing and publishing followed by Lucknow (36) and Kanpur (20). The biggest presses are located in Allahabad, Aligarh and Lucknow and belong to Government. As many as 30 districts do not have any sizable printing press and have to depend either on small presses or the main centres. The following statement shows some of the important districts :

Distribution of registered factories connected with wood, paper and printing in selected districts

District	Wood and wood products	Paper and paper products	Total	Printing and publishing
1 Kanpur	5	4	9	20
2 Lucknow	8	1	9	36
3 Saharanpur	6	2	8	2
4 Dehra Dun	4	1	5	6
5 Allahabad	3	1	4	56
6 Meerut	1	2	3	11
7 Agra	2	1	3	14
8 Varanasi	1	..	1	17
Total for Uttar Pradesh	**43**	**14**	**57**	**198**
Factories employing				
(*i*) More than 100	3	5	8	14
(*ii*) More than 500—999	..	2	2	1
(*iii*) More than 1,000	..	..	..	2

The following statement shows the distribution by employment in the larger factories :

	Number	Districts
28		
6		
11		Kanpur (7), Rampur, Saharanpur, Meerut and Aligarh (1 each)
3		Kanpur
2		
3		
1		
1		Kanpur
1		
4		
1		

ISIC Major Group 31: Leather and leather products

The industry, which is important for Uttar Pradesh, is mostly confined to Kanpur and Agra. Kanpur has been long pre-eminent in currying, tanning and finishing of hides and skins and preparation of finished leather. Agra specialises in boot and shoe making. Although the boot and shoe factories in Agra are more numerous than in Kanpur, the Kanpur factories are immeasurably larger in working strength. No other district, except Kanpur and Agra, is important, although Meerut has a factory for other leather goods and Farrukhabad, Fatehpur and Unnao have one factory each for tanning and finishing.

Distribution of industries in ISIC major group 31 : *Leather and leather products*

District	Tanning and finishing	Footwear	Other goods	Total
1 Kanpur	24	8	1	33
2 Agra	3	34	1	38
Total for Uttar Pradesh	**30**	**42**	**3**	**75**
Factories employing				
(*i*) more than 100 workers	9	2	..	11
(*ii*) more than 2,000 workers	..	1	..	1

ISIC Major Groups 32 and 33 : Rubber, petroleum and coal products and Chemicals and chemical products

Kanpur leads in chemical industries. The biggest fertilizer factory employing more than 1,000 workers is located in Varanasi. There is only one match factory at Bareilly employing more than 1,000 workers which produces nearly a fifth of all matches produced in India. Lucknow is important for pharmaceutical preparations, toilets, perfumes and cosmetics. There is no factory for the manufacture of rubber tyres but one factory makes rubber footwear and four other rubber goods (Kanpur 1, Meerut and Agra 2 each). In the following table (1) Basic chemicals stand for acids, alkalis, and their salts, (2) Pharmaceuticals include perfumes, cosmetics and other toilet goods, (3) other chemicals include paints, colours, varnishes, turpentine, rosin, plastics, inedible oils, opium and miscellaneous chemical goods.

Distribution of factories in ISIC major groups 32 *and* 33 *in selected districts of Uttar Pradesh*

District	Basic chemicals	Fertilizers	Pharmaceuticals	Other chemical products
1 Kanpur	5	2	6	12
2 Lucknow	..	..	11	1
3 Meerut	1	1	2	2
4 Agra	..	..	..	5
Total for Uttar Pradesh	**6**	**5**	**33**	**27**
Factories employing				
(*i*) more than 1,000	..	1	..	..
(*ii*) more than 500	1	..	..	1
(*iii*) more than 100	..	..	4	4

ISIC Major Groups 34 and 35 : Non-metallic mineral products other than petroleum and coal

There are no industries for manufacturing coal and petroleum products. There is one large cement factory in Churk (Mirzapur) which employs more than 1,000 workers. Agra leads with 138 factories out of a total of 166 in the glass industry, including production of glass bangles, beads and glass products. Meerut (2), Mirzapur (1) and Bulandshahr (Khurja 1) hold the monopoly in pottery and chinaware.

Distribution of factories in ISIC major groups 34 *and* 35 : *Non-metallic mineral products other than petroleum and coal*

District	Glass products including bangles and beads	Miscellaneous including stone dressing and crushing, hume pipes etc.
1 Agra	138	3
2 Aligarh	9	..
3 Allahabad	5	4
4 Jhansi	..	9
5 Mainpuri	4	..
6 Kanpur	3	1
7 Gorakhpur	..	4
8 Meerut	1	1
Total for Uttar Pradesh	**166**	**34**
Factories employing		
(*i*) more than 100 ..	53	2
(*ii*) more than 500 ..	5	..

ISIC Major Group 36 : Basic metals and their products, except machinery and transport equipment

This group of industries is mainly concentrated in Agra, Kanpur, Aligarh, Meerut, Moradabad, Varanasi and Lucknow. Aligarh has 22 lock factories for which it is famous.

Distribution of industries in ISIC major group 36 in selected districts

District	Basic metal industries (ferrous)	Basic metal industries (non-ferrous)	Galvanising, plating and welding	Products other than machinery and transport equipment	Total
1	2	3	4	5	6
1 Agra	25	8	..	25	58
2 Kanpur	28	..	1	23	52
3 Aligarh	10	4	5	29	48
4 Meerut	20	3	5	9	37
5 Moradabad	2	7	12	6	27
6 Varanasi	3	1	..	7	11
7 Lucknow	1	1	..	5	7
Total for Uttar Pradesh ..	**104**	**37**	**26**	**113**	**280**
Factories employing					
(*i*) Over 500 workers	2	..	..	..	2
(*ii*) Over 100 workers	13	..	1	7	21

There is no centre in the State for smelting and refining of non-ferrous metals and alloys, such as copper, bronze and brass. Besides the above 7 districts there are 14 more districts which have one or more factories each dealing with any of the lines indicated in the above table. The remaining 33 districts of Uttar Pradesh do not have even one factory doing any of these jobs.

ISIC Major Group 37 : Machinery (all kinds other than transport) and electrical equipment

"There is no hydraulic, ventilating or pneumatic engineering in the State, nor any manufacture of prime movers and boilers, such as diesel engines, road rollers and tractors, or of heavy electrical equipment such as motors, generators, transformers or storage batteries. For making light non-electrical machinery, there are 263 factories in 28 districts". There are none in the remaining 26 districts of the State and even in these 28, there is no more than 1 each in 10.

There are only 18 factories in the State engaged in the manufacture of electrical goods. Four factories (Kanpur 1, Meerut 1, Varanasi 2) produce lamps and fans, 5 produce electric wires and cables (Kanpur 1, Meerut 1, Agra 2, Mathura 1), 2 produce radios, microphones etc. (Meerut and Rampur) and 7 produce miscellaneous equipment (Kanpur, Lucknow, Bulandshahr, Allahabad and Aligarh one each, Varanasi 2).

Distribution of registered factories manufacturing non-electrical machinery in selected districts

District	Minor Group 372 machine tools	Minor Group 373 textile machinery	Minor Group 370 other machines	Total
1 Kanpur	3	1	71	75
2 Meerut	1	3	66	70
3 Lucknow	..	..	20	20
4 Varanasi	1	1	10	12
5 Agra	7	1	3	11
6 Saharanpur	..	..	10	10
7 Bareilly	..	..	9	9
8 Bulandshahr	..	..	7	7
Total for Uttar Pradesh	**12**	**7**	**244**	**263**
Factories employing				
(*i*) more than 100 workers		1	25	26
(*ii*) more than 1,000 workers		..	1	1

Minor Group 370 : Other machineries

Factories turning out agricultural implements	93
Factories doing general and jobbing engineering	123
Miscellaneous	28
**Total .. ..

ISIC Major Group 38 : Transport equipment

There are no factories for the manufacture of locomotives, wagons, coaches, tramways, other rail-road equipment, motor vehicles or aeroplanes. Kanpur, Meerut and Lucknow are important districts for the manufacture of bicycles, the largest factory being in Meerut. Out of 101 registered factories for the repair of motor vehicles, 55 belong to State Government, Lucknow, the headquarters of the State Transport Department, being the largest.

Distribution of factories dealing with transport equipment in selected districts

District	Repair of rail road equipment and tramways	Repair of aeroplanes	Repair of motor vehicles	Manufacture of bicycles	Repair of bicycles	Manufacture of animal and hand-drawn vehicles	Total
1	2	3	4	5	6	7	8
1 Lucknow	2	..	22	3	..	..	27
2 Kanpur	..	..	13	5	8	..	26
3 Meerut	4	..	4	4	..	..	12
4 Allahabad	1	2	4	1	3	..	11
5 Varanasi	1	..	3	1	4	..	9
6 Agra	..	..	5	1	1	1	8
7 Bareilly	2	..	3	..	..	2	7
8 Saharanpur	2	..	3	..	..	..	5
9 Jhansi	3	..	2	..	..	..	5
10 Gorakhpur	3	..	2	..	..	..	5
Total for Uttar Pradesh	**21**	**2**	**101**	**15**	**16**	**3**	**158**
Factories employing							
(*i*) more than 100 workers	13	1	15	1	2	..	32
(*ii*) more than 1,000 workers	..	—	1	..	..	..	1

ISIC Major Group 39 : Miscellaneous manufactures

There are 100 factories in the State of which 21 are engaged in the manufacture of scientific instruments, 3 in the repair of watches and clocks (Meerut, Lucknow, Varanasi), 3 in jewellery (Agra), 1 in musical instruments (Meerut), 4 in that of pens and pencils (1 in Meerut, 3 in Kanpur), 7 in sports goods (Meerut 2, Lucknow 2, Allahabad, Naini Tal and Bareilly 1 each), and 61 in miscellaneous articles.

The following is the distribution of factories manufacturing scientific instruments :

District	Number of factories
1 Meerut	1
2 Lucknow	3
3 Kanpur	1
4 Saharanpur .. .. —	7
5 Agra	1
6 Varanasi	4
7 Dehra Dun	2
8 Aligarh .. .. .. —	1
9 Allahabad.. .. ... —	1
Total ..	**21**

Although Saharanpur has the largest number of factories, Lucknow has the bigger establishments.

As will appear from the brief analysis above, registered factories are mainly concentrated in the seven greats : Kanpur, Meerut, Lucknow, Agra, Gorakhpur, Saharanpur and Deoria. Each of them provides employment to more than 10,000 workers in registered factories. The Census Superintendent of Uttar Pradesh has listed the industries in each as below in order of their importance to the industrial progress of Uttar Pradesh.

Kanpur (354): Basic ferrous metals, metal products, production of light machinery and machine tools, motor transport repairs, manufacture of bicycles, basic chemicals and chemical products, cotton, jute and woollen textiles, tanning of leather and leather footwear, edible vegetable oils, hydrogenated oils and processing of foodgrains chiefly dal i.e. all branches of industry of any consequence. Textile, leather and ferrous metal industries are the most important industries in Kanpur.

Meerut (219): Basic ferrous metals, light machinery and machine tools, repairs of rail-road equipment, manufacture of bicycles, chemical products, cotton textiles, alcohol, hydrogenated oils and sugar.

Lucknow (156): Production of light machinery and tools, repairs of rail-road equipment and motor transport, manufacture of bicycles, scientific instruments, chemical products, cotton textiles, paper, printing and processing of foodgrains. Lucknow is known for paper and chemical products including cosmetics and perfumes.

Agra (344): Basic ferrous metals, metal products, chemical products, wool spinning and weaving, carpet weaving, glass bangles and glass products, leather footwear, edible vegetable oils and processing of foodgrains. Glass bangles, glass products and leather footwear are the most important industries of Agra.

Gorakhpur (40): Repairs of rail-road equipment and sugar.

Saharanpur (71): Scientific instruments, cotton textiles, paper, alcohol, cigarettes, sugar and processing of foodgrains chiefly milling of rice. Saharanpur is noted for paper, cigarettes and sugar.

Deoria (19): Sugar alone is of importance.

The distribution of factories employing 100 workers and above in these districts is given in the following table :

Distribution of registered factories in 7 districts having highest factory employment

District	100—499	500—999	1,000—4,999	5,000+
Kanpur	44	4	12	3
Meerut	22	10	3	..
Lucknow	22	4	3	..
Agra	48	2	..	..
Gorakhpur	10	4	2	1
Saharanpur	7	2	5	..
Deoria	2	11	2	..

The Census Superintendent observes that the number of registered factories has more than doubled during the decade 1950-60 and employment has risen by about 25 per cent.

B. Workshops and factories according to census houselist 1960

The total number of workshops and factories counted in the Houselists in 1960 was 240,832. Their distribution by size of employment is given below :

Total/ Rural/ Urban	Total	Size of employment						
		1 person	2-5 persons	6-9 persons	10-19 persons	20-49 persons	50-99 persons	100 persons and above
1	2	3	4	5	6	7	8	9
Total	240,832	127,133	95,139	11,975	4,171	1,491	554	369
Rural	158,521	93,421	55,604	6,512	1,931	651	307	95
Urban	82,311	33,712	39,535	5,463	2,240	840	247	274
Total	10,000	5,279	3,951	497	173	62	23	15
Rural	10,000	5,893	3,508	411	122	41	19	6
Urban	10,000	4,096	4,803	664	272	102	30	33

The largest number of factories and workshops is therefore still in the 1 and 2-5 worker categories. It follows therefore that the district which provides the highest employment is not necessarily the one which has the highest number of workshops and factories. The following statement gives the distribution of districts by number of workshops and factories.

Distribution of all workshops and factories in Uttar Pradesh by number of workshops and factories

	Range of factories and workshops in district	Number of districts	Name of districts	Districts which provide substantial employment in registered factories
1	Below 2,000	12	(1) *Hill districts* Uttar Kashi, Chamoli, Pithoragarh, Tehri Garhwal, Garhwal, Dehra Dun, Bijnor. (2) *Terai districts* Rampur, Pilibhit, Bahraich, Deoria, Rae Bareli.	Deoria, Rampur.
2	2,000—3,999	19	Saharanpur, Naini Tal, Bareilly, Budaun, Aligarh, Shahjahanpur, Kheri, Sitapur, Hardoi, Farrukhabad, Mainpuri, Jalaun, Hamirpur, Banda, Fatehpur, Unnao, Gorakhpur, Ballia, Ghazipur.	Saharanpur, Bareilly, Aligarh, Gorakhpur.
3	4,000—5,999	7	Muzaffarnagar, Mathura, Etah, Etawah, Pratapgarh, Jaunpur, Almora.	Muzaffarnagar, Mathura.
4	6,000—7,999	9	Moradabad, Bulandshahr, Jhansi, Kanpur, Lucknow, Bara Banki, Gonda, Sultanpur, Allahabad.	Kanpur, Lucknow, Allahabad, Bulandshahr, Moradabad, Jhansi.
5	8,000—9,999	2	Mirzapur, Agra.	Agra, Mirzapur.
6	10,000+	5	Basti, Faizabad, Meerut, Azamgarh, Varanasi.	Meerut, Varanasi.

The above table will bear circumstantial evidence to the prevalence of hand-worked industries in the rural areas of certain districts. The following statement gives an idea of the concentration of factories and workshops in the urban areas of the districts of Uttar Pradesh.

Distribution of factories and workshops in urban areas

District	Number of factories and workshops: Total	Number of factories and workshops: Urban	Per thousand in urban areas
1 Lucknow	6,052	4,910	811
2 Agra ..	9,127	6,546	717
3 Kanpur ..	6,560	4,595	700
4 Varanasi ..	13,605	8,379	616
5 Saharanpur ..	2,374	1,450	611
6 Bareilly ..	2,582	1,493	578
7 Aligarh ..	3,080	1,651	536
8 Moradabad ..	7,182	3,708	516
9 Etah ..	4,040	2,070	512
10 Rampur ..	1,533	731	477
11 Allahabad ..	6,369	2,744	431
12 Gorakhpur ..	3,568	1,443	404
13 Meerut ..	12,211	4,364	357
14 Deoria ..	1,876	233	124
15 Muzaffarnagar	5,880	683	116
16 Pratapgarh ..	4,393	418	95
17 Pilibhit ..	1,417	112	79
18 Unnao ..	2,507	189	75
19 Sultanpur ..	6,350	368	58
20 Ballia	2,219	89	40
21 Tehri Garhwal	1,711	37	22
22 Basti	10,417	130	12
23 Almora	5,399	57	11

The remaining 31 districts have less than one per cent of their factories and workshops in urban areas.

Use of power in factories and workshops

The use of power is limited in Uttar Pradesh as will appear from the table at the beginning. Even if we group all the sources of power, viz., electricity, liquid fuel and solid fuel, the largest number of factories reached in any

district is 3,103 in Agra. The following table shows the distribution of districts according to number of factories using power :

Distribution of districts by number of workshops and factories using electricity, liquid fuel, and solid fuel

	Range	Number of districts	Name of districts	Name of districts using power in areas showing the proportion per 1,000 units using power
1	Below 500	21	Uttar Kashi (2), Chamoli, Pithoragarh, Tehri Garhwal, Garhwal, Dehra Dun, Bijnor, Rampur, Pilibhit, Sitapur, Jalaun, Hamirpur, Banda, Fatehpur, Rae Bareli, Sultanpur, Azamgarh, Deoria, Jaunpur, Ghazipur (476), Ballia.	Deoria (204)
2	500—999	12	Saharanpur, Almora, Naini Tal, Bareilly, Budaun, Mathura, Jhansi, Farrukhabad, Kheri, Bahraich, Pratapgarh, Gorakhpur.	Saharanpur (322) Gorakhpur (178)
3	1,000—1,499	12	Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Mainpuri, Shahjahanpur (1,126), Hardoi, Unnao, Bara Banki, Faizabad, Basti, Mirzapur.	Meerut (123) Shahjahanpur (548)
4	1,500—1,999	5	Etawah, Etah, Moradabad, Allahabad, Varanasi.	Etah (394) Etawah (390) Moradabad (276) Allahabad (262) Varanasi (113)
5	2,000—2,499	2	Kanpur, Gonda.	Kanpur (321) Gonda (293)
6	2,500+	2	Lucknow (3,052) Agra (3,103)	Lucknow (504) Agra (340)

Only about a fifth of workshops and factories are worked by any kind of power. The only two districts, the Census Superintendent observes, in which more than half of the establishments are worked by power or fuel are Shahjahanpur (548) and Lucknow (504), Shahjahanpur, however is not industrially important. The position is not very much better even in the urban areas of districts. Only six districts show any substantial proportion of the urban factories and workshops using any kind of power, as in the following table. This demonstrates the very limited use of power particularly in the field of small industries in the State.

Proportion of urban workshops and factories using power in selected districts

District	Total number of urban workshops and factories	Urban workshops and factories using power	Proportion per 1,000
1 Lucknow ..	4,910	2,450	499
2 Agra ..	6,546	2,256	345
3 Kanpur ..	4,595	1,477	321
4 Meerut ..	4,364	638	146
5 Varanasi ..	8,379	1,012	121
6 Azamgarh ..	4,112	135	33

Size of employment

The dominant size of employment in all kinds of urban industrial establishments in Uttar Pradesh is 2-5 persons,

irrespective of whether they are run on power or no power. In rural Uttar Pradesh however the single-worker establishment is dominant among those which are run on solid fuel, other power or no power, while those which are run on electricity or liquid fuel tend to have 2-5 persons. The highest proportion of large-sized establishments employing 50-99 persons or 100 workers and above is found in those run on electricity whether in rural or urban areas and it gets progressively smaller in those run on liquid fuel, solid fuel, other power and no power.

Geographical distribution of industries other than registered factories

ISIC Major Group 20 : Foodstuffs

1 Rice, flour and dal : These industries are distributed almost throughout Uttar Pradesh.

2 Khandsari sugar and gur is most prevalent in the rural areas of Meerut and Bijnor.

3 Edible oils : Rural areas of Gonda, Faizabad, Sultanpur, Pratapgarh, Basti, Jaunpur, Mirzapur, Gorakhpur.

4 Sweetmeats, confectionery and sundry foods. Urban areas of Mathura, Agra, Allahabad, Jhansi, Lucknow, Faizabad and whole of Azamgarh.

More than half of the rural establishments of Almora, Pratapgarh, Tehri Garhwal, Chamoli, Naini Tal, Gorakhpur, Bijnor, Pithoragarh, Uttar Kashi, Jalaun, Dehra Dun and Garhwal in descending order are engaged in foodstuff industries, mainly milling and husking of foodgrains, except in Bijnor where it is khandsari and gur and Pratapgarh and Gorakhpur where it is edible oils.

ISIC Major Group 21 : Beverages

Unimportant except in registered factories.

ISIC Major Group 22 : Tobacco

Bidi-making is important in Azamgarh, Farrukhabad and Allahabad. There is a large cigarette factory in Saharanpur.

ISIC Major Groups 23-27 : Textiles

1 *Cotton weaving in handlooms* : The districts of Moradabad, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Mathura, Agra, Etah, Farrukhabad, Etawah, Kanpur, Jhansi, Sitapur, Lucknow, Bara Banki, Faizabad, Sultanpur, Basti, Gorakhpur, Azamgarh, Varanasi and Mirzapur are important centres of the handloom industry. Large cotton mills exist at Kanpur, Rampur, Saharanpur, Meerut and Aligarh. The urban areas of Uttar Kashi, Varanasi, Bara Banki, Gorakhpur, Sitapur and Pilibhit and the rural areas of Varanasi, Bara Banki, Aligarh, Muzaffarnagar and Basti have more than two-fifths of their industrial establishments in textile industries.

2 *Jute* : Large jute mills exist in Kanpur and Gorakhpur.

3 *Wool* : A large woollen mill in Kanpur.

4 *Silk* : The whole of Varanasi.

5 *Carpets* : Rural areas of Varanasi and Mirzapur.

ISIC Major Group 28 : Wood and wood products

Wood industries which account for more than a fifth of all industries in Moradabad (urban), Pilibhit (rural) and Dehra Dun (urban) are important in their economy. There are sizable wood industries also in Budaun, Bareilly, Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Mathura, Mainpuri, Etawah, Jhansi, Hamirpur, Gonda and Bara Banki.

ISIC Major Group 29-30

Already noted.

ISIC Major Group 31 : Leather

The districts in order of importance of number of establishments are Agra (urban more than rural), Meerut (rural more than urban), Mirzapur, Jhansi, Azamgarh, Kanpur, Faizabad, Lucknow, Mathura, Muzaffarnagar and Hamirpur. More than one-fifth of all establishments in both rural and urban Agra are devoted to the leather industry. Agra is famous

for footwear, although the largest footwear factory is located in Kanpur which is also the premier centre in Northern India for the tanning industry.

ISIC Major Group 32 : Rubber etc.

Rubber shoes are manufactured at Rampur, Agra and Kanpur. For miscellaneous rubber goods there are a few establishments at Pauri (Garhwal), Moradabad, Meerut, Agra and Kanpur, only 4 of which are large enough to be registered.

ISIC Major Group 33 : Chemicals

1 *Soap* : Urban areas of Meerut, Mathura, Agra, Etah, Kanpur and Lucknow.

2 *Basic chemicals* : Agra, Kanpur, Kheri, Lucknow and Jaunpur, although Kanpur alone is important.

3 *Matches* : Bareilly, Kanpur and Lucknow. Bareilly factory alone is of importance.

ISIC Major Groups 34-35 : Non-metallic mineral products

1 *Pottery and earthen-ware* : Widely distributed throughout Uttar Pradesh. Potters seem to have been missed in large numbers.

2 *Earthen images and toys* : Azamgarh and Lucknow, rural areas of Sultanpur and Pratapgarh.

3 *Glass bangles* : Agra (Firozabad), Aligarh, Mainpuri and Gonda.

4 *Chinaware and crockery* : Urban areas of Moradabad, Bulandshahr (Khurja).

5 *Brick kilns* : Meerut, Bulandshahr, Agra, Moradabad, Bareilly, Muzaffarnagar, Fatehpur, Allahabad, Faizabad, Jaunpur.

Brick kilns seem to have been missed.

6 *Cement* : Mirzapur (Churk).

ISIC Major Group 36 : Basic metals

1 *Basic metals smelting, refining, rolling, conversion* : For ferrous metals, Kanpur, Agra, Aligarh and Meerut. For non-ferrous metals Meerut, Moradabad, Agra, Mainpuri and Mirzapur. Mirzapur has a large aluminium factory.

2 *Manufacture of weapons, e.g., daggers, spearheads, etc.* : Basti, Kanpur, Faizabad, Chamoli, Jalaun, Fatehpur, Banda, Jhansi, Almora, Rampur and Agra.

3 *Sheet and plate metal* : Faizabad, Jaunpur, Lucknow, Banda and Mathura.

4 *Iron and steel furniture* : Varanasi, Meerut and Jhansi.

5 *Brass industry* : This is distributed throughout the State. The more important districts having more than 100 establishments each are Moradabad, Mirzapur, Azamgarh, Varanasi, Agra and Faizabad.

6 *Other metal products* : Moradabad, Kanpur, Lucknow.

7 *Galvanising, enamelling, plating, polishing and welding* : Moradabad, Aligarh, Agra, Kanpur, Meerut and Lucknow.

8 *Sundry hardware* : This includes village blacksmithy which is widespread in Uttar Pradesh. But only eight districts possess more than 400 rural or 200 urban establishments in sundry hardware: Almora, Gonda, Aligarh, Meerut, Muzaffarnagar, Moradabad, Agra and Bulandshahr.

ISIC Major Group 37 : Machinery and electrical equipment (other than transport)

Heavy machinery is not manufactured in Uttar Pradesh.

1 *Electrical equipment* : Kanpur, Meerut, Lucknow and Varanasi.

2 *Light machinery including agricultural and irrigation implements* : Lucknow, Kanpur, Meerut, Varanasi.

3 *Insulated wires and cables* : Allahabad and Faizabad.

4 *Reconditioning and recharging of batteries* : Fatehpur, Jhansi.

5 *Repairs and servicing of radio and microphones* : Fatehpur and Lucknow.

ISIC Major Group 38 : Transport equipment

Most of the industries in this group are concerned with repairing and servicing. Bicycles are manufactured in 15 factories. The districts in which motor repairing and servicing is intensively undertaken are : Faizabad, Kanpur, Gorakhpur, Banda, Allahabad, Fatehpur, Jaunpur, Lucknow, Varanasi, Agra, Muzaffarnagar, Mathura, Meerut, Sitapur and Dehra Dun. Bicycle repairing is extensively undertaken in Meerut, Agra, Azamgarh, Lucknow, Kanpur, Allahabad, Sultanpur and Faizabad.

Manufacture of other transport equipment, such as animal drawn and hand-drawn vehicles is carried on mostly in Agra, Fatehpur, Kanpur, Meerut, Etawah, Saharanpur, Kheri and Lucknow. This is chiefly an urban industry except in Kheri and Fatehpur.

ISIC Major Group 39 : Miscellaneous

Jewellery and ornaments : Establishments are most numerous in the rural areas of Bara Banki and the urban areas of Meerut, Mathura, Agra, Kanpur, Allahabad, Jhansi, Lucknow and Gonda.

Type of power in specific industries

As briefly observed earlier specific industries seem to favour specific kinds of power. The following table indicates those industries which claim more than one-fifth of all workshops and factories either in rural or urban areas by the type of fuel or power used.

Industries which claim more than one-fifth of all workshops and factories in rural or urban areas classified by extent of different kinds of power used expressed as proportion per 1,000 *of all workshops and factories in that industrial category*

Industry	Proportion to 1,000 in					
	Electricity		Liquid fuel		Solid fuel	
	Rural	Urban	Rural	Urban	Rural	Urban
1 Rice, flour and dal..	..	576	350	222	..	..
2 Sugar in mills	616	790	215	..	..	..
3 Khandsari	..	319	..	..	..	..
4 Confectionery	..	..	..	..	231	448
5 Cotton textiles in mills	322	688	..	..	..	..
6 Wool spinning	..	..	..	..	..	428
7 Jute textiles	..	..	..	..	300	..
8 Paper	..	246	..	..	..	..
9 Printing	..	310	..	..	..	..
10 Matches	..	1,000	..	..	..	..
11 Bricks	..	..	..	..	430	256
12 Lime	..	..	..	..	313	452
13 Glass bangles	..	..	..	..	..	397
14 Basic metals and their products ..	..	..	..	..	593	421
15 Machinery	..	474	..	..	..	..
16 Miscellaneous	..	..	..	..	288	273

Cities and Towns above 50,000

Distribution of class I and II towns by number of workshops and factories

Number of factories	Number of	
	Cities	Towns
Below 250	1	5
250—499	1	5
500—999	3	5
1,000—1,999	6	3
2,000—3,999	2	..
4,000+	4	..

The cities and towns in the lowest range are Muzaffarnagar, Meerut Cantonment, Ghaziabad, Dehra Dun, Hardwar and Pilibhit. The four cities in the highest range are Varanasi, Kanpur M.C., Agra and Lucknow. The 2 cities in the next range are Allahabad and Meerut M.B.

Distribution of class I and II towns by number of workshops and factories worked by electricity, liquid fuel and solid fuel

Number of factories	Number of Cities	Number of Towns	Name
Below 250 ..	6	16	
250—499 ..	4	2	
500—999 ..	4	..	
1,000—1,499 ..	1	..	Kanpur M.C.
1,500—1,999 ..	1	..	Agra
2,000+ ..	1	..	Lucknow

Electricity is now quite popular as industrial power in Rampur, Bareilly, Dehra Dun, Meerut, Mathura, Kanpur M.C., Allahabad, Gorakhpur, Varanasi and in the towns of Sambhal, Amroha, Pilibhit, Hardwar, Muzaffarnagar, Ghaziabad, Hapur, Hathras, Kanpur Cantonment, Sitapur and Faizabad. Liquid fuel, mostly diesel, is popular in Budaun and Meerut Cantonment. Solid fuel is extensively used in Moradabad, Shahjahanpur, Saharanpur, Aligarh, Agra, Jhansi, Lucknow and Mirzapur and in the towns of Firozabad, Farrukhabad, Etawah, Bahraich and Jaunpur.

Workshops by strength of employment

The dominant employment for urban areas is 2-5 workers per workshop but in some Class I cities and Class II towns one-worker establishments are still most common.

1 1-worker workshops	Most common in Allahabad*, Jhansi.*, Gorakhpur, Sambhal,* Amroha, Budaun, Pilibhit,* Hardwar*, Ghaziabad, Hathras, Sitapur and Jaunpur*. (Asterisk denotes more than half of all establishments in these cities and towns).
2 2-5 workers	Almost universally the dominant group.
3 6-9 workers—(more than 200 in each)	Varanasi, Agra, Kanpur M.C., Lucknow, Moradabad and Allahabad.
4 10-19 workers—(More than 100 in each)	Agra, Varanasi, Lucknow, Kanpur M.C., Firozabad.
5 20-49 workers—(more than 75 in each)	Kanpur M.C., Agra, Aligarh and Firozabad.
Specializations	
1 Rice, flour and dal	Dehra Dun, Bareilly, Hardwar, Kanpur
2 Bakery	Pilibhit
3 Confectionery	Lucknow, Jhansi, Mathura, Ghaziabad
4 Dairy products, edible oils	Kanpur
5 Handspinning	Meerut M.B.
6 Cotton dyeing and bleaching	Hathras
7 Cotton handlooms	Gorakhpur, Faizabad, Etawah
8 Silk handlooms	Varanasi
9 Carpet and *durry* making	Kanpur Cantt.
10 Textile garments	Kanpur M.C., Allahabad, Meerut Cantt., Shahjahanpur, Farrukhabad
11 Wood and horn	Amroha and Sambhal
12 Boots and shoes	Agra, Kanpur
13 Glass bangles and glass	Firozabad
14 Brassware and chinaware	Moradabad and Mirzapur
15 Sundry hardware	Saharanpur, Aligarh, Rampur, Hapur
16 Locks	Aligarh
17 Cycle repairs	Muzaffarnagar, Sitapur
18 Jewellery	Budaun, Bahraich, Allahabad
19 Soap	Meerut
20 Bidi	Allahabad
21 Miscellaneous manufactures	Jaunpur
22 Steel furniture	Varanasi
23 Sugar mills	Rampur
24 Khandsari sugar mills	Bareilly
25 Cigarettes	Saharanpur
26 Printed cotton textiles	Farrukhabad

West Bengal

The following are the fifteen most important industries in West Bengal from the point of number of establishments.

Numerically important industries in West Bengal

ISIC Minor Group	Description	Percentage to total number of establishments
200	Milling and husking of grain	18·25
235	Cotton weaving in handlooms	13·91
369	Sundry hardwares	8·82
393	Jewellery	6·40
209	*Other food products*	*5·81*
207	Edible oils and fats	3·29
220	Bidi making	3·26
350	Earthenware and earthen pottery	3·13
273	Garment making	3·03
388	Repairing of bicycles and tricycles	2·43
311	Shoes and leather footwear ..	1·78
399	Miscellaneous	1·76
281	Wooden furniture and fixtures	1·60
365	Brass and bell-metal products	1·51
302	Other types of printing ..	1·40

ISIC Major Group 20 : Foodstuffs

This major group is concentrated in 24-Parganas (which claims a fifth of all establishments in the State), West Dinajpur (13.52 per cent), Midnapore (10·9), Murshidabad (10·2 per cent), Calcutta (6·7 per cent) and Burdwan (6·4 per cent). Minor group 200 (milling and husking of foodgrains) accounts for as many as 20,317 out of 42,445 establishments for which employment figures were 'not stated'. Since only 1,413 units out of this total of 20,317 were returned as power driven, the reasonable conclusion seems to be that the remainder were hand and foot-operated *Dhenkis* and therefore employed one person each. This assumption also narrows the gap between the number of workers returned in this minor group in Table E-III and that returned in Table B-IV. Minor group 209 (other food products like chira, muri, lozenges etc.) claims as many as 9,128 establishments.

ISIC Major Group 21 : Beverages

This is mainly concentrated in Burdwan (17·64 per cent), Midnapore (11·59), Birbhum (11·33) and Bankura (8·63) mainly on account of toddy tapping (minor group 212) and in Jalpaiguri (10·82 per cent) and Darjeeling (8·82) mainly on account of tea (minor group 217).

ISIC Major Group 22 : Tobacco

Minor group 220 (bidi making) accounts for the majority of establishments in this major group. The tobacco industry is mainly concentrated in Calcutta (20 per cent), 24-Parganas (18 per cent), Midnapore (11 per cent) and Howrah (7 per cent). There are large cigarette factories in 24-Parganas which account for the large number of workers in minor group 222.

ISIC Major Group 23 : Textile-Cotton

This major group is predominant in Hooghly (17 per cent), Nadia (14), Midnapore (13) and Malda (11). This is because of the famous centres of weaving like Chandannagar, Rajbalhat, Serampore etc. in Hooghly; Santipur and Fulia in Nadia; Ramjibanpur, Khirpai, Kharar, Tamluk and Ghatal in Midnapore and Englishbazar and Kaliachak in Malda. Handloom weaving accounts for these local preponderances although powerlooms and cotton mills are numerous in Hooghly and Nadia.

ISIC Major Group 24 : Textile-Jute

This major group is concentrated in Hooghly (21 per cent), 24-Parganas (21 per cent), Howrah (18 per cent), West Dinajpur (11 per cent) and Calcutta (6 per cent). West Dinajpur figures because of minor group 240 (jute baling and pressing), while the other districts are pre-eminent in baling, pressing and manufacture of all varieties of jute articles.

ISIC Major Group 25 : Textile-Wool

This major group is numerically small and mainly concentrated in small workshops in Calcutta (65 per cent) and

24-Parganas. In other districts the industry is mainly confined to the weaving of rude blankets and small rugs as in Midnapore, Bankura and other districts. It is only in Darjeeling that a variety of woollen cloths and plaids is woven.

ISIC Major Group 26 : Textile-Silk

This major industry is mainly confined to Murshidabad (30 per cent) where most of the silk grown in Malda is dyed and woven; Birbhum (29 per cent) where most of the tussar grown in Birbhum, Santal Parganas (Bihar) and Bankura is woven; Bankura (26) where much silk imported from Malda and elsewhere and some tussar grown in Purulia and Midnapore are woven; Malda (9) which bleaches, dyes and weaves the silk it grows locally; and Purulia (3 per cent) which grows its own tussar.

ISIC Major Group 27 : Textile-Miscellaneous

The most important minor group is 273 (garments) which secures Calcutta (36 per cent) and 24-Parganas (20) their pride of place. 24-Parganas and Howrah (11 per cent) are very important districts, not only for garments but also for embroidery, crepe lace and fringes (minor group 272). All the minor groups have their fair share in Calcutta and 24-Parganas, particularly hosiery, waterproof articles, umbrellas, and miscellaneous textile products.

ISIC Major Group 28 : Wood and wood products

The predominance of minor group 281 (wooden furniture and fixtures) gives Calcutta its high ratio (44 per cent). The next places are taken by 24-Parganas (8·6) and Howrah (8·5), Burdwan (5·6) and Hooghly (5·4). Many Hooghly artisans have dispersed to Calcutta and Howrah.

ISIC Major Group 29 : Paper and paper products

In this major group of paper and paper products, paper and board mills are concentrated in 24-Parganas and Burdwan. Other paper and paper board products are overwhelmingly concentrated in Calcutta (91 per cent). Another 5 per cent is held by 24-Parganas and only less than 4 per cent is shared by the remaining 14 districts.

ISIC Major Group 30 : Printing and publishing

By contrast with major group 29, major group 30 is less concentrated in Calcutta (77 per cent). Howrah and 24-Parganas have almost equal shares (3·7) while Midnapore (3) and Burdwan (2·5) bring up the total share of these 5 districts slightly over 90 per cent.

ISIC Major Group 31 : Leather and leather products

The major group follows a pattern loosely similar to major group 30's. Calcutta accounts for 56 per cent. 24-Parganas for 7·3. Howrah for 6·8. Midnapore for 4·7, Hooghly for 4·6 and Darjeeling for 3·7. Districts like Midnapore, Darjeeling, Hooghly, Burdwan (3·4), Malda (3·4) and Bankura (3·2) apart from a lot of cobbling do a great deal of currying, tanning and finishing of hides (310) which is also a very important minor group in eastern Calcutta, 24-Parganas and Howrah.

ISIC Major Group 32 : Rubber, petroleum and coal products

This major group (rubber, petroleum and coal products) is again concentrated mainly in Calcutta (66·7 per cent), while Howrah has 8·6 per cent and 24-Parganas another 7·6. The other important district is Burdwan (6 per cent) mainly because of minor groups 325 and 326.

ISIC Major Group 33 : Chemicals and chemical products

Here, again, we obtain a very similar pattern of distribution with a concentration of 56 per cent in Calcutta, 10·8 per cent in Midnapore and 24-Parganas and 8·2 per cent in Howrah. The percentage in Midnapore is mainly due to the prevalence of indigenous medicines and pharmaceutical preparations (335) but the ratios in other districts and Hooghly and Burdwan (3 each) relate to a great extent to modern chemicals and chemical processing. There is a small amount of

manufacture of common salt in Midnapore and 24-Parganas.

ISIC Major Group 34-35 : Non-metallic mineral products other than petroleum and coal

ISIC Major Group 34

No cement is produced in the State. ISIC Major group 34 mainly relates to bricks and tiles in districts of high ratio like 24-Parganas (27·3 per cent), Howrah (20), Hooghly (11·4), Midnapore (7·7) and Murshidabad (7·2), Purulia has a certain amount of stone crushing and mica (3·4 per cent).

ISIC Major Group 35

In this major group earthenware and earthen pottery (350) is concentrated in Midnapore (13·3), Calcutta (12·7) which also accounts for a great deal of the State's glass, Burdwan (10·4), Bankura (8·6), Howrah (8·5), Hooghly (8·1) and 24-Parganas (8).

ISIC Major Group 36 : Basic metals and their products except machinery and transport equipment

Sundry hardware (minor group 369) makes for a reasonable proportion in every district but this major group is mainly concentrated in Calcutta (17·2), Howrah (15·5), 24-Parganas (10·1), Midnapore (9·7) and Bankura (9·1) not only because of establishments concerned with ferrous metals and metals like aluminium and tin as in Calcutta, Howrah, and 24-Parganas but because of brass and bell metal as in Kharar and Ghatal of Midnapore and Vishnupur and Sonamukhi in Bankura.

ISIC Major Group 37 : Machinery and electrical equipment

Manufacture of machinery in this major group is overwhelmingly concentrated in Calcutta (74 per cent), 24-Parganas (9·9 per cent), Howrah (6·2 per cent) and Burdwan (2·8 per cent).

ISIC Major Group 38 : Transport equipment

The manufacture and repair of transport equipment is concentrated in Calcutta (25·2), 24-Parganas (13·1), Burdwan (9), Midnapore (8), Hooghly (8) and Howrah (7).

ISIC Major Group 39 : Miscellaneous manufacturing

Minor group 393 (Jewellery) helps to give each district a reasonable share but despite this minor group, establishments in this major group are concentrated in Calcutta (41 per cent), 24-Parganas (12·1), Howrah (6·5). Midnapore (6), Hooghly (5·4) and Burdwan (5·3).

The unique position enjoyed by Calcutta, 24-Parganas, Howrah and Hooghly demands that we investigate a little more the concentration of industries in the cities and towns of these districts. A useful course would be to take up the cities in diminishing order of population.

Concentration of industrial establishments in cities and class II towns of West Bengal

1 **Calcutta**—Population : 2,927,289

The concentration of industries in this city has already been discussed. The distribution of establishments under major groups using electricity will be of interest.

The total number of establishments using electricity 9,362 *which constitutes only* 28·42 *per cent of all industrial establishments in Calcutta*

		Percentage of all establishments
Number using electricity : 9,362 = 100.00		
Proportion in major group	20	10·53
	27	6·95
	28	5·67
	30	13·01
	33	6·75
	36	15·95
	37	16·59
	38	7·64
	39	9·27

All other major groups have less than 5 per cent, major groups 21, 22, 23, 24, 25, 26, 29 and 34 having less than one per cent each.

2 **Howrah**—Population : 512,598

Of a total of 4,323 establishments the numerically strong major groups are of

course 20, 22, 27, 28 and 31, but the more significant industries which employ large organised working population and contribute substantially to the national economy are 23 (cotton), 24 (jute), 30 (printing), 33 (chemicals, dyes and paints), 35 (ceramics and glass), 36, 37, 38 and 39 (non-jewellery).

3 **The South Suburban Town Group**—Population : 341,712

Garden Reach is important in (1) cotton spinning and weaving, (2) jute spinning and weaving, (3) soap and other detergents, (4) building and repair of water transport, and (5) garments. The South Suburban municipal town is important in the food industries (major group 20), wool spinning and weaving in mills, wood and wood products, manufacture of pulp, paper and paper board, and in major groups 30, 36, 37 and 38 (repair of bicycles).

4 **Asansol Town Group**—Population : 168,689

Asansol city is famous for its railway loco works. It has sizable establishments in major groups 20, 22, 27, 28, 36 and 38 (repair and service of motor vehicles). Outer Burnpur and Burnpur are celebrated for the Steel Works (major group 36) and products of coal-tar and coke oven (major group 32).

5 **Bhatpara**—Population : 147,630

The city contains 515 establishments. It is important for foodstuffs (major group 20), jute (major group 24), hardware (minor group 369), machine tools (372), insulated wires and cables (376), all kinds of battery (377), bidi (220) and textile garments (273).

6 **Kharagpur**—Population : 147,253

The principal industry is the manufacture, assembly and repair of locomotives and manufacture of electrical machinery and equipment (minor group 374). The other industries are mainly concerned with supply of local consumer goods like minor groups 200, 209, 273, 311, 369 and 399.

7 **Baly**—Population : 130,896

The important industries are minor group 207, 208, 232, 241, 252, 271, 278, 322, 337, 354, 357, 366, 369, 380, 381 and 386.

8 **Kamarhati**—Population : 125,457

The more important industries are the minor groups 232, 241, 334, 352, 354, 368, 369, 372, 373, 379. Other industries are 200, 203, 208, 252, 273, 302 and 337.

9 **South Dum Dum**—Population : 111,284

The more important industries are the minor groups of 234 (powerlooms), 287 (boxes and packing cases), 291 (handmade paper and paper board), 323 (rubber products), 334 (matches), 335 (medicines, pharmaceutical preparations), 337 (turpentine, resin), 343 (stone goods), 357 (miscellaneous glass products), 366 (aluminium products), 369 (sundry hardware), 383 (motor vehicles, engine parts and accessories).

10 **Burdwan**—Population : 108,224

The more important industries are the minor groups of 200, 209, 220, 273, 302, 369, 380 and 393.

11 **Baranagar**—Population : 107,837

The more important industries are the minor groups of 241, 290, 291, 292, 323, 331, 335, 354, 363, 367, 369 and 374.

12 **Panihati**—Population : 93,749

The important minor groups are 222, 232, 323, 335, 350, 365, 369, 370, 395. Other minor groups are 200, 209, 273, 388 and 393.

13 **Serampore**—Population : 91,521

The important minor groups are 232, 239, 241, 313, 335, 340, 357 and 369.

14 **Hooghly Chinsura** — Population : 83,104

The important minor groups are 273, 388 and 393.

15 **Titagarh**—Population : 76,429

The important minor groups are 241, 290, 200, 273 and 393.

16 **Nabadwip**—Population : 72,861

The important minor groups are 200, 209, 235, 273, 355, 365, 369, 388 and 393.

17 **Krishnanagar**—Population : 70,440

The more important minor groups are 200, 209, 220, 271, 273, 302, 355, 369, 384, 388 and 393.

18 **Kanchrapara**—Population : 68,966

The principal minor groups is 380 followed by 200, 273, 384, 388 and 393.

19 **Chandannagar**—Population 67,105

The important minor groups are 241, 369, 235, 209, 350, 388 and 393.

20 **Siliguri**—Population : 65,471

The principal industries are in the minor groups 200, 205, 209, 369, 384, 388 and 393.

21 **Barrackpur**—Population : 63,778

The more important minor groups are 200, 209, 220, 273, 384, 388 and 393.

22 **Bankura**—Population : 62,833

The important minor groups are 200, 209, 220, 232, 235, 273, 365, 369, 388 and 393.

23 **Baharampur**—Population : 62,317

The principal industries are in the minor groups of 200, 273, 302, 365, 369, 384, 388, 392 and 393.

24 **Midnapur**—Population : 59,532

The important minor groups are 200, 209, 220, 273, 388 and 393.

25 **Naihati**—Population : 58,457

The more important minor groups are 241, 331, 200, 209, 220, 273, 384, 388 and 393.

26 **North Barrackpur**—Population : 56,683

The important minor groups are 232, 366, 200, 209, 235, 273 and 393.

27 **Basirhat**—Population : 53,943

The worthwhile minor groups are 235 and 200 and 209.

28 **Halisahar**—Population : 51,423

The important minor groups are 241, 290, 200, 209, 273 and 393.

29 **Santipur**—Population : 51,190

The most important minor group as in Nabadwip is 235. Other important industries are 200, 209, 273, 388 and 393.

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AGRA—
1 National Book House, Jeoni Mandi . . . . . (Reg.)
2 Wadhawa & Co., 45, Civil Lines . (Reg.)
3 Banwari Lal Jain, Publishers, Moti Katra . . . . (Rest.)
4 English Book Depot, Sadar Bazar, Agra Cantt. . . . . (Rest.)

AHMADNAGAR —
V. T. Jorakar, Prop. Rama General Stores, Navi Path . . (Rest.)

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1 Balgovind Kuber Dass & Co., Gandhi Road . . . . (Reg.)
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2 Rajputana Book House, Station Road . . . . . (Reg.)
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Friends' Book House, Muslim University Market . . . (Reg.)

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1 Superintendent, Printing and Stationery, U.P. . . . . .
2 Kitabistan, 17-A, Kamla Nehru Road . . . . . (Reg.)
3 Law Book Co., Sardar Patel Marg, P. Box 4 . . . . (Reg.)
4 Ram Narain Lal Beni Modho, 2-A, Katra Road . . . . (Reg.)
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7 Wadhwa & Co., 23, M. G. Marg (Rest.)
8 Bharat Law House, 15, Mahatma Gandhi Marg . . . . (Rest.)
9 Ram Narain Lal Beni Prashad, 2-A, Katra Road . . . (Rest.)

AMBALA—
1 English Book Depot, Ambala Cantt. . . . . (Reg.)
2 Seth Law House, 8719, Railway Road, Ambala Cantt. . . (Rest.)

AMRITSAR—
1 The Law Book Agency, G. T. Road, Putligarh . . . (Reg.)
2 S. Gupta, Agent, Government Publications, Near P. O. Majith Mandi . . . . . (Reg.)
3 Amar Nath & Sons, Near P. O. Majith Mandi . . . . (Reg.)

ANAND—
1 Vijaya Stores, Station Road . (Rest.)
2 Charto Book Stall, Tulsi Sadan, Station Road . . . . (Rest.)

ASANSOL—
D. N . Roy & R. K. Roy, Booksellers, Atwal Building . . (Rest.)

BANGALORE—
1 The Bangalore Legal Practitioner Co-op. Society Ltd., Bar Association Building . . . . (Reg.)
2 S. S. Book Emporium, 118, Mount Joy Road . . . . . (Reg.)
3 The Bangalore Press, Lake View, Mysore Road, P. O. Box 507 . (Reg.)
4 The Standard Book Depot, Avenue Road . . . . . (Reg.)
5 Vichara Sahitya Private Ltd., Balepet . . . . . (Reg.)
6 Makkala Pustaka Press, Balamandira, Gandhinagar . . . (Reg.)
7 Maruthi Book Depot, Avenue Road . . . . . (Rest.)
8 International Book House P. Ltd., 4-F, Mahatma Gandhi Road . (Reg.)
9 Navakarnataka Pubns. Private Ltd., Majestic Circle . . . . (Rest.)

BAREILLY—
Agarwal Brothers, Bara Bazar . (Reg.)

BARODA—
1 Shri Chandrakant Mohan Lal Shah, Raopura . . . . . (Rest.)
2 Good Companions Booksellers, Publishers & Sub-Agent . . (Rest.)
3 New Medical Book House, 540, Madan Zampa Road . . . (Rest.)

BEAWAR—
The Secretary, S.D. College, Co-operative Stores Ltd. . . . (Rest.)

BELGHARIA—
Granthlok, Antiquarian Booksellers & Publishers (24-Parganas) 5/1, Amlica Mukherjee Road . . (Reg.)

BHAGALPUR—
Paper Stationery Stores, D. N. Singh Road . . . . . (Reg.)

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1 Superintendent, State Government Press . . . . . .
2 Lyall Book Depot, Mohd. Din Bldg., Sultania Road . . (Reg.)
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Shri D. V. Deshpande, Recognised Law Booksellers, Prop. Vinod Book Depot. Near Shiralshetti Chowk . . . . . (Rest.)

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2 Charles Lambert and Co., 101, Mahatma Gandhi Road . . (Reg.)
3 Co-operator's Book Depot, 5/32 Ahmed Sailor Bldg., Dadar . (Reg.)
4 Current Book House, Maruti Lane, Raghunath Dadaji St, . . (Reg.)
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7 Lakkani Book Depot. Girgaum . (Reg.)
8 Elpees Agencies, 24, Bhangwadi, Kalbadevi . . . . . (Reg.)
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11 Popular Book Depot, Lamington Road . . . . . (Reg.)
12 Sunder Das Gian Chand, 601, Girgaum Road, Near Princess Street (Reg.)
13 D. B. Taraporewala Sons and Co. (P) Ltd., 210, Dr. Dadabhai Naoroji Road . . . . . (Reg.)
14 Thacker and Co., Rampart Row . (Reg.)
15 N. M. Tripathi Private Ltd., Princess Street . . . (Reg.)
16. The Kothari Book Depot, King Edward Road . . . . . (Reg.)
17 P.H. Rama Krishna and Sons, 147, Rajaram Bhuvan, Shivaji Park Road No. 5 . . . . . (Rest.)
18 C. Jamnadas and Co., Booksellers, 146-C., Princess Street. . . (Reg.)
19 Indo Nath and Co., A-6, Daulat Nagar Borivli . . . . . (Reg.)
20 Minerva Book Shop, Shop No. 1/80, N. Subhash Road . . (Reg.)
21 Academic Book Co., Association Building, Girgaum Road . . (Rest.)
22 Dominion Publishers, 23 Bell Building, Sir P. M. Road . . (Rest.)
23 Bombay National History Society, 91 Walkeshwar Road . . . (Rest.)
24 Dowamadeo and Co., 16, Naziria Building, Ballard Estate . . (Rest.)
25 Asian Trading Co., 310, the Miraball, P. B. 1505 . . . . (Rest.)

CALCUTTA—
1 Chatterjee & Co., 3/I Bacharam Chatterjee Lane . . . . (Reg.)
2 Dass Gupta and Co., Ltd., 54/3, College Street . . . . . (Reg.)
3 Hindu Library, 69 A, Bolaram De Street . . . . . (Reg.)
4 S. K. Lahiri and Co. Private Ltd., College Street . . . . (Reg.)
5 M. C. Sarkar and Sons Private Ltd., 14, Bankim Chatterjee Street (Reg.)
6 W. Newman and Co. Ltd., 3, Old Court House Street . . . (Reg.)
7 Oxford Book and Stationery Co., 17, Park Street . . . . (Reg.)
8 R. Chambray and Co. Ltd., Kent House, P, 33, Mission Road Extension . . . . . (Reg.)
9 S. C. Sarkar and Sons Private Ltd., I. C. College Square . . (Reg.)
10 Thacker Spink and Co. (1933) P. Ltd., 3 Esplanade East . . (Reg.)
11 Firma K. L. Mukhopadhaya, 6/1A, Banchha Ram Akrar Lane . . (Reg.)
12 K. K. Roy, P. Box No. 10210, Calcutta-19 . . . . . (Rest.)
13 Sm. P. D. Upadhyay, 77, Muktaram Babu Street . . (Rest.)
14 Universal Book Dist., 8/2 Hastings Street . . . . . (Rest.)
15 Modern Book Depot, 9, Chowringhee Centre . . . . . (Rest.)
16. Soor and Co., 125, Canning Street (Reg.)
17 S. Bhattacharjee, 49 Dharamtala Street . . . . . (Rest.)
18 Mukherjee Library, 10 Sarba Khan Road . . . . . (Reg.)
19 Current Literature Co. 208, Mahatma Gandhi Road . . (Reg.)
20 The Book Depository 4/1, Madan Street (1st Floor) . . . (Rest.)
21 Scientific Book Agency, Netaji Subhas Road . . . . (Rest.)
22 Reliance Trading Co., 17/1 Banku Bihari Ghose Lane, District Howrah . . . . . (Rest.)
23 Indian Book Dist. Co., 6512 Mahatma Gandhi Road . . . (Rest.)

CALICUT—Touring Book Stall . . (Rest.)

CHANDIGARH—
1 Supdt. Govt. Printing and Stationery, Punjab
2 Jain Law Agency, Flat No., 8 Sector No. 22 . . . . . (Reg.)
3 Rama News Agency, Bookseller, Sector, No. 22 . . . (Reg.)
4 Universal Book Store, Booth 25, Sector 22-D . . . . (Reg.)
5 English Book Shop, 34, Sector 22D . . . . . (Rest.)
6 Mehta Bros, 15-Z, Sector 22-B . (Rest.)
7 Tandan Book Depot, Shopping Centre, Sector 16 . . . (Rest.)
8 Kailash Law Publishers, Sector 22-B . . . . . (Rest.)

CHHINDWARA—
The Verma Book Depot. . . (Rest.)

COCHIN—
Saraswat Corporation Ltd., Palliarakav Road . . . . . (Reg.)

CUTTACK—
1 Press Officer Orissa Sectt. . . .
2 Cuttack Law Times . . . . (Reg.)
3 Prabhat K. Mahapatra, Mangalabag, P. B. 35 . . . . (Reg.)
4 D.P. Sur & Sons, Mangalabag . (Rest.)
5 Utkal Stores, Balu Bazar . . (Rest.)

DEHRA DUN—
1 Jugal Kishore & Co., Rajpur Road . . . . . (Reg.)
2 National News Agency, Paltan Bazar . . . . . (Reg.)
3 Bishan Singh and Mahendra Pal Singh, 318, Chukhuwala . . (Reg.)
4 Utam Pustak Bhandar, Paltan Bazar . . . . . (Rest.)

DELHI—
1 J. M. Jaina & Brothers, Mori Gate . . . . . (Reg.)
2 Atma Ram & Sons, Kashmere Gate . . . . . (Reg.)
3 Federal Law Book Depot, Kashmere Gate . . . . . (Reg.)
4 Bahri Bros., 188, Lajpat Rai Market . . . . . (Reg.)
5 Bawa Harkishan Dass Bedi (Vijaya General Agencies) P.B. 2027, Ahata Kedara, Chamalian Road . . (Reg.)
6 Book-Well, 4, Sant Narankari Colony, P. B. 1565 . . . (Reg.)
7 Imperial Publishing Co., 3, Faiz Bazar Daryaganj . . . (Reg.)
8 Metropolitan Book Co., 1, Faiz Bazar . . . . . (Reg.)
9 Publication Centre, Subzimandi . (Reg.)
10 Youngman & Co., Nai Sarak . (Reg.)
11 Indian Army Book Depot, 3, Daryaganj . . . . . (Reg.)
12 All India Educational Supply Co., Shri Ram Buildings, Jawahar Nagar . . . . . (Rest.)
13 Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market . . . . . (Rest.)
14 University Book House, 15, U. B. Bangalore Road, Jawahar Nagar . (Rest.)
15 Law Literature House, 2646 Balimaran . . . . . (Rest.)
16 Summer Brothers, P. O. Birla Lines . . . . . (Rest.)
17 Universal Book & Stationery Co., 16, Netaji Subhash Marg . . (Reg.)
18 B. Nath & Bros., 3808, Charkhawalan (Chowri Bazar) . . (Rest.)
19 Rajkamal Prakashan P. Ltd., 8, Faiz Bazar . . . . . (Reg.)
20 Premier Book Co., Printers, Publishers & Booksellers, Nai Sarak . (Rest.)
21 Universal Book Traders, 80 Gokhale Market . . . . . (Reg.)
22 Tech. & Commercial Book Coy., 75 Gokhle Market . . . . (Rest.)
23 Saini Law Publishing Co., 1416, Chabiganj, Kashmere Gate . (Rest.)
24 G. M. Ahuja, Booksellers & Stationers, 309, Nehru Bazar . . (Rest.)
25 Sat Narain & Sons, 3141 Mohd. Ali Bazar, Mori Gate . . (Reg.)
26 Kitab Mahal (Wholesale Div.) P. Ltd., 28, Faiz Bazar . . . (Reg.)
27 Hindu Sahitya Sansar, Nai Sarak (Rest.)
28 Munshi Ram Manohar Lal, Oriental Booksellers & Publishers, P. B. 1165, Nai Sarak . . (Rest.)
29 K. L. Seth, Suppliers of Law, Commercial Tech. Books, Shanti Nagar, Ganeshpura . . . (Rest.)
30 Adarsh Publishing Service, 5-A/10 Ansari Road . . . . . (Rest.)

DHANBAD—
1 Ismag Co-operative Stores, P. O. Indian School of Mines . . (Reg.)
2 New Sketch Press, Post Box 26 . (Rest.)

DHARWAR—
1 The Agricultural College Consumers Co-op. Society . . . . . (Rest.)
2 Rameshraya Book Depot, Subhas Road (Rest.)
3 Karnatakaya Sahitya Mandira of Publishers and Booksellers,

ERNAKULAM—
1 Pai & Co., Cloth Bazar Road . . (Rest.)
2 South India Traders C/o Constitutional Journal . . . . . (Reg.)

FEROZEPUR—English Book Depot, 78, Jhoke Road . . . . . (Reg.)
GAUHATI—Mokshada Pustakalaya . . (Reg.)
GAYA—Sahitya Sadan, Gautam Budha Marg (Reg.)
GHAZIABAD—Jayana Book Agency . (Rest.)
GORAKHPUR—Vishwa Vidyalaya Prakashan Nakhes Road . . . . . (Reg.)
GUDUR—The General Manager, The N.D.C. Publishing & Ptg. Society Ltd. . . (Rest.)
GUNTUR—Book Lovers Private Ltd., Kadriguda Chowrasta . . . . . (Reg.)

GWALIOR—
1 Supdt., Printing & Stationery M.B. .
2 Loyal Book Depot, Patankar Bazar, Lashkar . . . . . (Reg.)
3 M. C. Daftri Prop., M.B. Jain & Bros., Booksellers Sarafa, Lashkar . . (Rest.)

HUBLI—Pervaje's Book House, Koppikar Road . . . . . (Reg.)

HYDERABAD—
1 Director, Govt. Press . . .
2 The Swaraj, Book Depot, Lakdikapul (Reg.)
3 Book Lovers Private Ltd. . . (Rest.)
4 Labour Law Publications, 873, Sultan Bazar . . . . . (Rest.)

IMPHAL—Tikendra & Sons Booksellers . (Rest.)

INDORE—
1 Wadhawa & Co., 56, M. G. Road . (Reg.)
2 Swarup Brothers Khajuri Bazar . (Rest.)
3 Madhya Pradesh Book Centre, 41, Ahilya Pura . . . . . (Rest.)
4 Modern Book House, Shiv Vilas Palace (Rest.)
5 Navyug Sahitya Sadan, Publishers & Booksellers, 10, Khajuri Bazar . (Rest.)

JABALPUR—
1 Modern Book House, 286, Jawaharganj (Reg.)
2 National Book House, 135 Jai Prakash Narain Marg . . . . . (R.)

JAIPUR—
1 Government Printing and Stationery Department, Rajasthan. . . .
2 Bharat Law House, Booksellers, & Publishers Opp. Prem Prakash Cinema . (Reg.)
3 Garg Book Co., Tripolia Bazar . (Reg.)
4 Vani Mandir, Sawai Mansingh Highway (Reg.)
5 Kalyan Mal & Sons, Tripolia Bazar . (Rest.)
6 Popular Book Depot, Chaura Rasta . (Reg.)
7 Krishna Book Depot, Chaura Rasta . (Rest.)
8 Dominion Law Depot, Shah Building P. B. No. 23 . . . . . (Rest.)

JAMNAGAR—Swadeshi Vastu Bhandar . (Reg.)

JAMSHEDPUR—
1 Amar Kitab Ghar, Diagonal Road, P. B. 78 . . . . . (Reg.)
2 Gupta Stores, Dhatkidih . . (Reg.)
3 Sanyal Bros., Booksellers & News Agents Bistapur Market . . . (Rest.)

JAWALAPUR—Sahyog Book Depot . . (Rest.)

JHUNJHUNU—
1 Shashi Kumar Sarat Chand . . (Rest.)
2 Kapram Prakashan Prasaran, 1/90, Namdha Niwas Azad Marg . . (R.)

JODHPUR—
1 Dwarka Das Rathi, Wholesale Books and News Agents . . . . (Reg.)
2 Kitab-Ghar, Sojati Gate . . . (Reg.)
3 Choppra Brothers, Tripolia Bazar . (Reg.)

JULLUNDUR—
1 Hazooria Bros., Mai Hiran Gate . (Rest.)
2 Jain General House, Bazar Bansanwala (Reg.)
3 University Publishers, Railway Road . (Rest.)

KANPUR—
1 Advani & Co., P. Box. 100, The Mall (Reg.)
2 Sahitya Niketan, Shradhanand Park . (Reg.)
3 The Universal Book, Stall, The Mall . (Reg.)
4 Raj Corporation Raj House, P.B. 200, Chowk . . . . . (Rest.)

KARUR—Shri V. Nagaraja Rao, 26, Srinivisapuram . . . . . (Rest.)

KODARMA—The Bhagwati Press, P. O. Jhumri Tilaiya, Distt. Hazaribagh . (Reg.)

KOLHAPUR—Maharashtra Granth Bhandhar, Mahadwar Road . . . . . (Reg.)

KOTA—Kota Book Depot . . . . (Rest.)

KUMTA—S.V. Kamat, Booksellers & Stationers (North Kanara) . . . . (Reg.)

LUCKNOW—
1 Soochna Sahitya Depot (State Book Depot)
2 Balkrishna Book Co., Ltd., Hazratganj (Reg.)
3 British Book Depot. 84, Hazaratganj (Reg.)
4 Ram Advani, Hazratganj, P.B. 154 . (Reg.)
5 Universal Publishers (P) Ltd. Hazratganj (Reg.)
6 Eastern Book Co., Lalbagh Road . (Reg.)
7 Civil & Military Educational Stores, 106/B Sadar Bazar . . . . . (Rest.)
8 Acquarium Supply Co., 213, Faizabad Road . . . . . (Rest.)
9 Law Book Mart, Amin-Ud-Daula Park (Rest.)

LUDHIANA—
1 Layall Book Depot, Chaura Bazar . (Reg.)
2 Mohindra Brothers, Katcheri Road . (Rest.)
3 Nanda Stationery Bhandar, Pustak Bazar . . . . . (Rest.)
4 The Pharmacy News, Pindi Street . (Rest.)

MADRAS—
1 Supdt. Govt. Press, Mount Road .
2 Account Test. Institute, P. O. 760 Egmore . . . . . (Reg.)
3 C. Subbiah Chetty & Co., Triplicane . (Reg.)
4 K. Krishnamurthy, Post Box 384. . (Reg.)
5 Presidency Book Supplies 8, Pycrofts Road, Triplicane . . . . . (Reg.)
6 P. Vardhachary & Co., 8 Linghi Chetty Street . . . . . (Reg.)
7 Palani Parchuram 3, Pycrofts Road, Triplicane . . . . . (Reg.)
8 NCBH Private Ltd., 199, Mount Road (Rest.)
9 V. Sadanand, The Personal Bookshop, 10, Congress Building 111, Mount Road . . . . . (Rest.)

MADURAI—
1 Oriental Book House, 258, West Masi Street . . . . . (Reg.)
2 Vivekananda Press, 48, West Masi Street (Reg.)

MANDYA SUGAR TOWN—K. N. Narimhe Gowda & Sons . . . . (Rest.)

MANGALORE—U. R. Shenoye Sons, Car Street, P. Box: 128 . . . . . (Reg.)

MANJESHWAR—Mukenda Krishna Nayak (Rest.)

MATHURA—Rath & Co., Tilohi Building, Bengali Ghat . . . (Rest.)

MEERUT—
1 Prakash Educational Stores, Subhas Bazar . . . . . (Reg.)
2 Hind Chitra Press, West Kutchery Road . . . . . (Reg.)
3 Loyal Book Depot, Chhipi Tank . (Reg.)
4 Bharat Educational Stores, Chhippi Tank . . . . . (Rest.)
5 Universal Book Depot, Booksellers & News Agents . . . . . (Rest.)

MONGHYAR—Anusandhan, Minerva Press Building (Rest.)

MUSSOORIE—
1 Cambridge Book Depot, The Mall (Rest.)
2 Hind Traders . . . . . (Rest.)

MUZAFFARNAGAR—
1 Mittal & Co., 85-C, New Mandi . (Rest.)
2 B. S. Jain & Co., 71, Abupura . . (Rest.)

MUZAFFARPUR—
1 Scientific & Educational Supply Syndicate . . . . . (Reg.)
2 Legal Corner, Tikmanio House, Amgola Road . . . . . (Rest.)
3 Tirhut Book Depot . . . . . (Rest.)

MYSORE—
1 H. Venkataramiah & Sons, New Statue Circle . . . . . (Reg.)
2 Peoples Book House, Opp. Jagan Mohan Palace . . . . . (Reg.)
3 Geeta Book House, Booksellers & Publishers, Krishnamurthipuram . (Rest.)
4 News Paper House, Lansdowne Building . . . . . (Rest.)
5 Indian Mercantile Corporation, Toy Palace, Ramvilas . . . . . (Rest.)

NADIAD—R. S. Desay, Station Road . (Rest.)

NAGPUR—
1 Supdt., Govt. Press & Book Depot .
2 Western Book Depot, Residency Road (Reg.)
3 The Asstt. Secretary, Mineral Industry Association, Mineral House . . (Rest.)

NAINITAL—Coural Book Depot, Bara Bazar (Rest.)

NANDED—
1 Book Centre, College Law General Books, Station Road . . . . (Rest.)
2 Hindustan General Stores, Paper & Stationery Merchants P. B. No. 51 . . (Rest.)
3 Sanjoy Book Agency, Vazirabad . . (Rest.)

NEW DELHI—
1 Amrit Book Co., Connaught Circus . (Reg.)
2 Bhawani & Sons, 8-F, Connaught Place (Reg.)
3 Central News Agency, 23/90, Connaught Circus . . . . . (Reg.)
4 Empire Book Depot, 278, Aliganj . (Reg.)
5 English Book Stores, 7-L, Connaught Circus P.O. B. 328 . . . . . (Reg.)
6 Faqir Chand and Sons, 15-A, Khan Market . . . . . (Reg.)
7 Jain Book Agency, C-9, Prem House, Connaught Place . . . . . (Reg.)
8 Oxford Book & Stationery Co., Scindia House . . . . . (Reg.)
9 Ram Krishna & Sons (of Lahore) 16/B, Connaught Place . . . . . (Reg.)
10 Sikh Publishing House, 7-C, Connaught Place . . . . . (Reg.)
11 Suneja Book Centre, 24/90 Connaught Circus . . . . . (Reg.)
12 United Book Agency, 31, Municipal Market, Connaught Circus . . . (Reg.)
13 Jayana Book Depot, Chhaparwala Kuan, Karol Bagh . . . . . (Reg.)
14 Navyug Traders, Desh Bandhu Gupta Road, Dev Nagar . . . . . (Reg.)
15 Saraswati Book Depot, 15, Lady Harding Road . . . . . (Reg.)
16 The Secretary, Indian Met, Society, Lodi Road . . . . . (Reg.)
17 New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P. B. No. 96, Connaught Place . . . (Reg.)
18 Mehra Brothers, 50-G, Kalkaji . . (Reg.)

19 Laxmi Book Stores, 42, Janpath . (Rest.)
20 Hindi Book House, 82, Janpath . (Rest.)
21 Peoples Publishing House (P) Ltd., Rani Jhansi Road . . . . . (Reg.)
22 R. K. Publishers, 23, Beadon Pura, Karol Bagh . . . . . (Rest.)
23 Sharma Bros., 17 New Market, Moti Nagar . . . . . (Reg.)
24 Aapki Dukan, 5/5777, Dev Nagar . (Rest.)
25 Sarvodaya Service, 66A-1, Rohtak Road, P. B. 2521 . . . . . (Rest.)
26 H. Chandson, P. B. No. 3034 . . (Rest.)
27 The Secretary, Federation of Association of Small Industry of India, 23-B/2, Rohtak Road . . . . . (Rest.)
28 Standard Booksellers & Stationers, Palam Enclave . . . . . (Rest.)
29 Lakshmi Book Depot, 57, Regarpura (Rest.)
30 Sant Ram Booksellers, 16, New Municipal Market Lody Colony . (Rest.)

PANJIM—
1 Singhals Book House, P. O. Box 70 Near the Church . . . . . (Rest.)
2 Sagoon Gaydev Dhoud, Booksellers, 5-7 Rua, 3 Idc Jameria . . . (Rest.)

PATHANKOT—The Krishna Book Depot, Main Bazar . . . . . (Rest.)

PATIALA—
1 Supdt., Bhupindra State Press . .
2 Jain & Co., 17, Shah Nashin Bazar . (Reg.)

PATNA—
1 Supdt. Govt. Printing (Bihar) . .
2 J. N. P. Agarwal & Co., Padri-Ki-Haveli Raghunath Bhawan . . . (Reg.)
3 Luxmi Trading Co., Padri-Ki-Haveli . (Reg.)
4 Moti Lal Banarsi Dass, Bankipore . (Reg.)
5 Bengal Law House, Chowhatta . . (Rest.)

PITHORAGARH—Maniram Punetha & Sons (Rest.)

PONDICHERRY—M/s. Honesty Book House,9, Lue Duplix . . . . (R.)

POONA—
1 Deccan Book Stall, Deccan Gymkhana (Reg.)
2 Imperial Book Depot, 266, M. G. Road (Reg.)
3 International Book Service, Deccan Gymkhana . . . . . (Reg.)
4 Raka Book Agency, Opp. Natu's Chawl, Near Appa Balwant Chowk . . (Reg.)
5 Utility Book Depot, 1339, Shivaji Nagar (Rest.)

PUDUKOTTAI—Shri P. N. Swaminathan Sivam & Co., East Main Road . (Rest.)

RAJKOT—Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents . . (Reg.)

RANCHI—
1 Crown Book Depot, Upper Bazar . (Reg.)
2 Pustak Mahal, Upper Bazar . . (Rest.)

REWA—Supdt., Govt. State Emporium V.P. . . . . .

ROURKELA—The Rourkela Review . (Rest.)

SAHARANPUR—Chandra Bharta Pustak Bhandar, Court Road . . (Rest.)

SECUNDERABAD—Hindustan Diary Publishers, Market Street . . (Reg.)

SILCHAR—Shri Nishitto Sen Nazirpatti (Rest.)

SIMLA—
1 Supdt. Himachal Pradesh Govt. Press
2 Minerva Book Shop, The Mall . (Reg.)
3 The New Book Depot, 79, The Mall . . . . . (Reg.)

SINNAR—Shri N. N. Jakhadi, Agent, Times of India Sinnar (Nasik) . . (Rest.)

SHILLONG—
1 The Officer-in-charge, Assam Govt. B. D. . . .
2 Chapla Bookstall, P. B. No. 1 . (Rest.)

SONEPAT—United Book Agency . (Reg.)

SRINAGAR—The Kashmir Bookshop, Residency Road . . . (Reg.)

SURAT—Shri Gajanan Pustakalaya Tower Road . . . . . (Reg.)

TIRUCHIRAPALLI—
1 Kalpana Publishers, Wosiur . . (Reg.)
2 S. Krishnaswami & Co., 35, Subhash Chander Bose Road . (Reg.)
3 Palamiappa Bros . . . (Rest.)

TRIVANDRUM—
1 International Book Depot, Main Road . . . . . (Reg.)
2 Reddiar Press & Book Depot, P. B. No. 4 . . . . . (Rest.)

TUTICORIN—Shri K. Thiagarajan, 10-C, French Chapal Road . . (Rest.)

UDAIPUR—
1 Jagdish & Co., Inside Surajapole . (Rest.)
2 Book centre, Maharana, Bhopal Consumers, Co-op. Society Ltd. (Rest.)

UJJAIN—Manak Chand Book Depot, Sati Gate . . . . . (Rest.)

VARANASI—
1 Students Friends & Co., Lanka . (Rest.)
2 Chowkhamba Sanskrit Series Office, Gopal Mandir Road, P.B.8. . . . . (Reg.)
3 Globe Book Centre . . . (Rest.)
4 Kohinoor Stores, University Road, Lanka . . . . . (Reg.)
5 B. H.U. Book Depot . . . (Rest.)

VELLORE—A. Venkatasubhan Law Booksellers . . . . (Reg.)

VIJAYAWADA—The Book & Review Centre, Eluru Road, Governpet . (Rest.)

VISAKHAPATNAM—.
1 Gupta Brothers, Vizia Building . (Reg.)
2 Book Centre, 11/97, Main Road . (Reg.)
3 The Secy. Andhra University, General Co-op. Stores Ltd. . (Rest.)

VIZIANAGARAM—Sarda & Co. . (Rest.)

WARDHA—Swarajya Bhandar, Bhorji Market . . . . . (Reg.)

For Local Sale

1 Govt. of India Kitab Mahal, Janpath, Opp. India Coffee House, New Delhi.
2 Govt. of India Book Depot, 8 Hastings Street, Calcutta.
3 High Commissioner for India in London, India House, London, W.C. 2.

Railway Bookstall Holders

1 S/S. A. H. Wheeler & Co.,15, Elgin Road, Allahabad.
2 Gahlot Bros., K. E. M. Road, Bikaner.
3 Higginbothams & Co., Ltd., Mount Road, Madras.
4 M. Gulab Singh & Sons Private Ltd., Mathura Road, New Delhi.

Foreign

1 S/S Education Enterprise Private Ltd., Kathmandu (Nepal)
2 S/S Aktie Bologat, C. E. Fritzes Kungl, Hovobokhandel, Fredsgation-2 Box 1656, Stockholm,-16 (Sweden).
3 Reise-und Verkehrsverlag Stuttgart, Post 730, Gutenbergstra 21, Stuttgart No. 11245, Stuttgart den (Germany West)
4 Shri Ishwar Subramanyam 452, Reversite Driv Apt. 6, New York, 27 NWY
5 The Proprietor, Book Centre, Lakshmi Mansons, 49, The Mall, Lahore (Pakistan)

On S. and R. Basis

1 The Head Clerk, Govt. Book Depot, Ahmedabad.
2 The Asstt. Director, Extension Centre, Kapileswar Road, Belgaum.
3 The Employment Officer, Employment Exchange, Dhar.
4 The Asstt. Director, Footwear Extension Centre, Polo Ground No. 1 Jodhpur.
5 The O. I/C. Extension Centre, Club Road, Muzaffarpur.
6 The Director, Indian Bureau of Mines, Govt. of India, Ministry of Mines & Fuel, Nagpur.
7 The Asstt. Director, Industrial Extension Centre, Nadiad (Gujarat).
8 The Head Clerk, Photozincographic Press, 5, Finance Road, Poona.
9 Govt. Printing & Stationery, Rajkot.
10 The O. I/C. Extension Centre, Industrial Estate, Kokar, Ranchi.
11 The Director, S. I. S. I. Industrial Extension Centre, Udhna, Surat.
12 The Registrar of Companies, Narayani Building, 27, Erabourne Road, Calcutta-1
13 The Registrar of Companies, Kerala, 50, Feet Road, Eranakulam.
14 The Registrar of Companies, H. No. 3-5-83, Hyderaguda, Hyderabad.
15 Registrar of Companies, Assam, Manipur and Tripura, Shillong.
16 Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi.
17 Registrar of Companies, Punjab and Himachal Pradesh, Link Road, Jullundur City.
18 Registrar of Companies, Bihar, Jamal Road, Patna-1.
19 Registrar of Companies, Raj, & Ajmer, Shri Kamta Prasad House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur.
20 The Registrar of Companies, Andhra Bank Building, 6 Linghi Chetty Street P.B. 1530, Madras.
21 The Registrar of Companies, Mahatma Gandhi Road, West Cott. Bldg., P. B. 334, Kanpur.
22 The Registrar of Companies, Everest 100, Marine Drive, Bombay.
23 The Registrar of Companies, 162, Brigade Road, Bangalore.
24 The Registrar of Companies, Gwalior.
25 Asstt. Director, Extension Centre, Bhuli Road, Dhanbad.
26 Registrar of Companies, Orissa, Cuttack Chandi, Cuttack.
27 The Registrar of Companies,. Gujarat State, Gujarat Samachar Building, Ahmedabad.
28 Publication Division, Sale Depot, North Block, New Delhi.
29 The Development Commissioner, Small Scale Industries, New Delhi.
30 The O.I./C, University Employment Bureau, Lucknow.
31 O. I/C., S. I. S.I. Extension Centre, Malda.
32 O. I/C., S.I.S.I. Extension Centre, Habra, Tabaluria, 24-Parganas.
33 O. I/C., S. I. S. I. Model Carpentry Workshop, Piyali Nagar, P. O. Burnipur.
34 O. I/C., S. I. S. I. Chrontanning Extension Centre, Tangra 33, North Topsia Road, Calcutta-46.
35 O. I/C., S. I. S. I. Extension Centre (Footwear), Calcutta .
36 Asstt. Director, Extension Centre, Hyderabad.
37 Asstt. Director, Extension Centre, Krishna Distt. (A.P.)
38 Employment Officer, Employment Exchange, Jhabua.
39 Dy. Director Incharge, S.I.S.I. C/o Chief Civil Admn. Goa, Panjim
40 The Registrar of Trade Unions, Kanpur.
41 The Employment Officer, Employment Exchange, Gopal Bhavan, Mornia
42 The O. I/C., State Information Centre, Hyderabad.
43 The Registrar of Companies, Pondicherry.
44 The Asstt. Director of Publicity and Information, Vidhana Sabha (P.B. 271) Bangalore.



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