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KERALA

PART I B

REPORT ON VITAL STATISTICS OF THE DECADE AND FERTILITY SURVEY

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PREFACE

This book consists of the report on the Vital Statistics of Kerala for the decade 1951-61 and the report on the Fertility Survey conducted in January 1962 under the auspices of the Census Organization in the blocks selected for Post Enumeration Check in connection with the 1961 Census. The former deals with the quality and characteristics of the registration of births and deaths and the improvements introduced in the scheme of the registration of Vital Statistics. The latter contains an analysis of the Fertility Survey with special reference to current fertility and life time fertility. It is hoped that this attempt will serve as a useful basis for further studies in the field.

I would like to place on record my deep sense of gratitude to Shri M. K. Devassy, I. A. S., Superintendent of Census Operations for his valuable guidance and encouragement in bringing out this volume.

I am deeply indebted to Dr. R. S. Kurup, Deputy Director, Bureau of Economics and Statistics, Government of Kerala, for providing me with the basic data for the report on Vital Statistics and for his personal contribution to the chapter on "Schemes for improvement of Vital Statistics".

I am very grateful to Shri S. Raghavachari, Assistant Registrar General, for going through the reports and offering valuable suggestions.

I shall be failing in my duty if I do not acknowledge the devoted assistance rendered by Sarvashri S. Jayashanker and K. Gopinathan, Tabulation Officers of this office in the collection, compilation and analysis of data and the drafting of the reports on Vital Statistics and Fertility Survey respectively.

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Trivandrum,
10th December, 1970.

B. T. PILLAI

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REPORT ON VITAL STATISTICS OF THE DECADE

INTRODUCTION

The term Vital records, in its broadest sense, can include ' those dealing with births, deaths, still-births, foetal deaths, marriages, adoptions, legitimations, recognitions, annulments, divorces and separations; in short all the events which have to do with an individual's entrance into or departure from life, together with changes in civil status. For legal reasons such events have, in many countries, long been recorded in registers of which the most common are the register of births, the register of marriages and the register of deaths. Vital Statistics or registration statistics are prepared from these registers, generally by means of transcripts or transcriptions from the registers or from draft entries in the registers'.[1] Vital and health records are used for epidemiologic purposes such as source of data for measurement of the incidence and prevalence of disease, studies relating to etiology and therapy, studies pertaining to the effect of natality, mortality and migration etc. In general these records facilitate to have an overall picture of the levels of health and demographic conditions of the people and the factors influencing them. In this report an attempt is being made to find out how far the vital records available through registration in Kerala State could be used to depict the birth and death statistics for the period 1951-61.

Growth of Registration System in India

It is very difficult to get an authentic and chronological account of the development of the system of vital registration in India. *The Imperial Gazetteer* of India gives a brief appraisal of the conditions of the Vital Statistics registration that prevailed at the beginning of the present century. An extract of the relevant portion of the Gazetteer[2] is furnished below :—" When the Royal Commission of 1863 submitted their report there was practically no registration outside the Presidency towns. In accordance with their recommendation, arrangements were made to register deaths in towns and rural areas through the agency of the Police and of the municipal and subordinate revenue establishments. In Bengal, where the bulk of the province is permanently settled and the rural revenue establishments are weak, the difficulties proved greater than elsewhere, and a beginning was not made until 1870, by which time registration of deaths was in full force in other provinces. The registration of births presents more formidable obstacles. Official inquiry regarding the birth of children was apt to excite religious or caste prejudice, or superstitious fear, and the ignorant were suspicious of the motives which promoted an inquisition whose object they would not understand. Birth registration was started in Bombay in 1848 and in Madras about 1855 in other provinces it began at different time between 1870 and 1880; at first in selected areas and afterwards throughout the country. By 1882 it was general in all Provinces except Bengal, where, until 1892 it was only in force in selected towns. The Government of India made a general survey of the results in 1894, and found that in the United Provinces registration was carried out with some approach to accuracy; that it was fairly well done in the Punjab, the Central Provinces, and Berar; and that Bombay, Madras and Assam came a long way behind. In Bengal the figures did not go far back enough to enable an estimate to be made, but the reports of the Sanitary Commissioner with the Government of India show the registration was inaccurate there. Improvements have been made

1 Multilingual Demographic Dictionary (English Section)—United Nations, Pages 13-14

2 The Imperial Gazetteer of India, Vol. IV (1909 Edition), page 477

since, chiefly in the direction of closer supervision, and although the results are still imperfect they are better than they were formerly. Registration of the cause of death is more imperfect than the record of the fact of its occurrence. This is necessarily so because, even in large towns, the great majority die without having been seen by any person competent to diagonise the case." The condition was all the more worse because of the absence of any uniform legislation which affects the whole country. The provisions for the improvement of health conditions were scattered over some forty and odd legislations. Of these the more important enactments were the Quarantine Act of 1825, the Indian Merchant's Shipping Act of 1859, the Indian Penal Code of 1860, the Vaccination Act of 1880, the Medical Act of 1886, the Births, Deaths and Marriage Registration Act of 1886, the Indian Railways Act of 1896, the Epidemic Diseases Act of 1897, the Code of Criminal Procedure of 1898, the Glanders and Farcy Act of 1897, the Code of Criminal Procedure Act of 1898, the Indian Factories Act of 1911, the Indian Steam Vessels Act of 1917, the Indian Red Cross Act of 1922, the Indian Mines Act of 1923, and the Cantonments Act of 1924, besides a number of Acts and Regulations promulgated from time to time by the Provincial authorities and the Governments of Princely States. In October 1943, a Health Survey and Development Committee headed by Sir Joseph Bhore was appointed to make a broad survey of the existing position in regard to health conditions and health organisation in British India and to recommend the future schemes for development. The Bhore Committee Report which was published in 1946 made a comprehensive study on the system and ways of improvement of Vital Statistics. A summary of the recommendations[1] is extracted below :—

"Errors in existing Vital Statistics in India fall under three heads, (1) incompleteness in the recording of the events, (2) inaccuracy of the registered cause of death and (3) faulty compilation. Registration of Vital Statistics in all municipalities is, generally speaking, a function of the municipal public health department. In the rural areas, in most provinces the Registrar is the Police Officer in charge of the *thana* (Police station) and the person responsible for reporting births, deaths, and cases of notifiable diseases from individual villages is the *Chowkidar* who is perhaps the lowest grade of public servant and is generally illiterate. In the province of Madras the Registrar is the headman of each village.

The recorded Vital Statistics are passed on, through a series of Officers, to the Director of Public Health in each province. Compilation of the data is carried out at the different stages of transmission. Madras forms an exception to this general statement. Here the number of intermediary stages has been reduced, the village headman passing on his report to the *Tahsildar* of the *taluk* in which the village is situated and the latter sending it directly to the Director of Public Health. Compilation of the data for the whole province has been centralised in the office of the latter officer. This system has been found to be satisfactory and has been recommended to other provinces by the Central Advisory Board of Health.

RECOMMENDATIONS

THE AREA SERVED BY OUR SHORT-TERM PROGRAMME

The creation of four registration offices in each primary unit : The placing of the registering authority as close as possible to the people is desirable in order to improve

1 Report of Health Survey and Development Committee, 1946, Vol. IV Summary, pp 57–59.

vital statistics. We therefore recommend the establishment of four registration offices in each primary unit, one of these being at the headquarters of the unit. The public health nurses and mid-wives should be made Registrars of Births and Deaths and should be responsible for ensuring that these offices are kept open on the required dates and during the stated hours.

All the members of the public health staff employed in the primary unit should systematically check the birth and death registers by house to house enquiry, when they visit villages on their routine duties. In addition, we anticipate that the village committees we have suggested will help to bring on record events which might escape the notice of the *Chowkidar* as well as to awaken, in the villagers, a sense of personal responsibility in regard to registration.

THE AREAS OUTSIDE OUR SHORT-TERM PROGRAMME

We recommend the employment of non-medical personnel, with some elementary type of training, as Registrars in the areas to which our health programme is not extended. Each man's range of jurisdiction should be limited to such a number of villages as would enable him to visit all of them within a period of about 6 days. During three days in the week he should attend the registration office and the remaining days should be devoted to an inspection of the work of the *Chowkidars* in the villages within his area.

CERTAIN OTHER PROPOSALS

(a) *Houselists in villages and sample surveys*

We recommend the preparation and maintenance of houselists for individual villages. The list should contain information regarding the name, date of birth and sex of the head of the family and of every normal resident of the house. It should be made obligatory on the householder to give the information required for the filling of the houselist, should he be asked by the appropriate authority to do so.

In a subcontinent like India the use of the sampling method is eminently suitable for the collection of demographic information of various types and the provision of an accurate houselist for each village will prove invaluable for sample surveys.

(b) *The provision of adequate incentive to the people for the registration of births and deaths*

An effective method of stimulating interests in the people for the registration of Vital Statistics will be by creating conditions requiring in an increasing degree, the production of proof of age, community parentage etc. If courts, schools etc. could be induced to insist on the production of birth and death certificates the public will begin to feel the necessity for registering births and deaths in their own interest.

(c) *Compulsory registration of Vital Statistics*

In the areas in which our scheme will be introduced registration of Vital Statistics should be made compulsory along with the introduction of the scheme, wherever such provision does not already exist. In other areas compulsion should be introduced gradually. The enforcement of the law through the prosecution of offenders is essential if definite improvement is to be secured.

ADMINISTRATIVE ORGANISATION

The Central Organisation:—We recommend the appointment of an officer with the title of Registrar General of Vital and Population Statistics. He will be attached to the Central Ministry of Health and will be responsible for the collection, compilation study and publication of Vital Statistics from all parts of the country, for the carrying out of the census at periodical intervals and for continuous population studies. He will work independently of the Central Health Department but in close co-operation with it. He should publish an annual report on the population of India incorporating such information as is available regarding existing conditions and possible tendencies for the future.

A "medical section" should be created in the Registrar General's Office for the purpose of providing statistical help to the Central Health Department in its day to day administration and in the carrying out of special investigations.

The Provincial Organisation:— The provincial statistical organization should correspond to that proposed for the centre and the functions of the provincial officer in charge should be similar to those of the Registrar General. The designation of the provincial officer may be the Provincial Registrar of Vital and Population Statistics. He should be attached to the Provincial Ministry of Health for administrative control and should work independently of, but in close co-operation with the Director of Health Services.

The provision of "a medical section" in the office of the Provincial Registrar for the same functions as those suggested in connection with the Central Health Department is also necessary.

We have also made suitable recommendations for a District Vital Statistics organisation, which will work under the control of the Provincial Registrar.

The employment of statisticians in increasing numbers will become necessary in the Vital Statistics, health and other department of Government. Industry is also likely to employ a growing number of persons trained in modern statistical methods. In the circumstances we recommend the development of facilities for statistical training of a high order in the Universities and in certain other centres."

The above recommendations of the Bhore Committee were studied and discussed in detail at a conference of Health Ministers held in 1948. They appointed an expert Committee of officials called the 'Vital Statistics Committee to examine further the recommendation in detail. The Committee approved the Bhore Committee's recommendation with certain modifications. In May 1949 the Government of India as a first step towards the development and improvement in the systematic collection of Statistics and bearing upon the size and growth of population decided to constitute a single organization at the centre in the Ministry of Home Affairs under a Registrar General and ex-officio Census Commissioner to deal with population statistics including Vital Statistics and Census. The Government of India also appointed a Population Advisory Committee to advise the Registrar General in scientific and technical matters. In October 1951 the Population Advisory Committee approved an elaborate scheme for the improvement of population data prepared by the then Registrar General Shri R. A. Gopalaswami. Other important reports dealing with the function of Vital Statistics system in India are the report of the committee to study and report on pattern of statistical units for Health Departments (1960), the Linder Report (1960), the Recommendations of the Conference on the Improvement of Vital Statistics held under the auspices of the Office of the Registrar General, India (1961) and a Programme to improve the measurement of Life and Death in India by Dr. F. E. Linder (1963). An important landmark in the history of Vital Statistics registration was the transfer of all Vital Statistics records to the Registrar General, India, Ministry of Home Affairs from the Director General of Health Services, Ministry of Health in February 1960 in pursuance of a Cabinet decision of 1949. Now the Registrar General's Office has a separate section for Vital Statistics under a Deputy Registrar General.

Present System of Registration in India

Barring a few pockets the whole of the Indian Union is now under the system of Vital Registration of one form or the other. There are different agencies involved in the collection of the Vital Statistics data. Eventhough the systems vary from State to State and within each State they are broadly classified as follows:—

Agency	*States*
Health Agency	West Bengal
Panchayat Agency	Bihar
	Himachal Pradesh
	Orissa
	Rajasthan
	Uttar Pradesh
Police Agency	Assam
	Haryana
	Jammu & Kashmir
	Madhya Pradesh
	Punjab
Revenue Agency	Andhra Pradesh
	Gujarat
	Madras
	Maharashtra
	Mysore
Revenue and Health Agencies	Kerala

The prevailing system in each State largely depends upon the Acts and Regulations that are in force in those regions. The system, which is followed in Kerala, is described in detail in the next chapter.

CHAPTER I

REGISTRATION SYSTEM IN KERALA

Growth of Registration System

1.1 The present Kerala State consists of the erstwhile Kasaragod taluk of South Kanara district and Malabar district of Madras State and the princely States of Cochin and Travancore (excluding Agastheeswaram, Thovala, Kalkulam, Vilavancode and Shencottah taluks). As the Kasaragod taluk and the Malabar district were under the Madras Presidency the registration of births and deaths in these areas were governed by the Acts and Regulations passed by the Government of Madras from time to time.

1.2 The registration of vital events in the Madras Presidency was started as early as 1855 but it was not obligatory until an Act was passed in 1899 (Madras Act III of 1899) providing for the registration of births and deaths in rural areas. The compulsory provisions of this Act were extended to other regions of the rural areas by a notification of the respective District Collectors. The registration in such cases is compulsory with penalty in case of failure. In villages, where the above Act was not in force, the registration is however done under the executive instructions of the Revenue Department. The registration of births and deaths in the municipal towns were made compulsory under the provisions of the District Municipalities Act, 1884.

1.3 The registration of Vital Statistics was initiated in the Old Cochin State in 1071 M. E. (1895-96). The rules were framed and published in the *Sirkar* Gazette, prescribing the method to be adopted in effecting the registration. The Regulation II of 1905 issued by the Government of Cochin made the registration of births and deaths compulsory. In pursuance to this regulation Registrars of births and deaths were appointed in 1907. This Act was continued to be effective till the enactment of Travancore-Cochin Registration of Births and Deaths Act, 1953.

1.4 Till 1069 M. E. (1893-94) there was no regular agency for the registration of Vital Statistics in the erstwhile Travancore State though the village officers were expected to keep a register of births and deaths. The Towns Improvement and Conservancy Regulation II of 1069 M. E. (1893-94) made the registration of births and deaths compulsory in five towns. The first regulation of Public Health to be promulgated was the Epidemic Diseases Regulation II of 1073 M. E. (1897-98). Rules and Standing Orders have been framed under the Regulation from time to time regarding the control of the epidemic diseases, such as plague, small-pox, cholera and typhoid. A separate Sanitary Department was formed in August 1895. The department, as the name indicates, was charged with (i) the Registration of births and deaths, (ii) Sanitation in all parts of country except the towns brought under the operations of the Towns Improvement Regulation and (iii) Vaccinations throughout the country. The Regulation II of 1069 M. E. (1893-94) was replaced by Regulation III of 1076 M. E. (1900-01), but the provisions relating to registration of Vital Statistics were left unaltered. The Registration of Births and Deaths Acts of Travancore and Cochin States were integrated and the Travancore-Cochin Registration of Births and Deaths Act (Act VIII of 1953) was published in July 1953. The rules framed under this Act were in force throughout the rural areas of Travancore-Cochin while the Act III of 1899 as amended in

1945 controlled the registration in rural areas of the former Malabar district and Kasaragod taluk.

Agency of Present Registration

1.5 In the rural areas of the State the Vital Statistics registration is done by two agencies viz., the Health Assistants of the Department of Health Services in the former Travancore-Cochin region and the village staff of the Revenue Department in the erstwhile Malabar region inclusive of Kasaragod taluk. In the Corporation/Municipal towns the health staff of the Corporations/Municipalities are responsible for the recording of births and deaths.

Legal Provisions

1.6 The following Acts and Regulations govern the registration of vital events as in 1961.

Municipal Areas

(i) Madras District Municipalities Act, 1884 reissued in 1920 as Madras District Municipal Act 1920 and the rules framed thereunder governs the registration of vital events in six municipalities of Cannanore, Tellicherry, Badagara, Calicut, Palghat and Fort Cochin.

(ii) The Cochin Municipalities Act and the rules framed thereunder governs the registration of six municipalities viz. Chittur-Thathamangalam, Kunnamkulam, Trichur, Irinjalakuda, Ernakulam and Mattancherry.

(iii) The Travancore District Municipalities Act 1116 M. E. Section 306 and the rules framed thereunder governs the registration of Vital Statistics of sixteen municipalities viz. Parur, Alwaye, Perumbavoor, Muvattupuzha, Palai, Vaikom, Kottayam, Changanacherry, Shertallai, Alleppey, Thiruvalla, Kayamkulam, Mavelikkara, Quilon, Attingal and Neyyattinkara.

(iv) The Trivandrum City Municipal Act 1116 M. E. Section 344 and the rules framed thereunder governs the registration of births and deaths in the Trivandrum Corporation.

Rural Areas

(i) The Madras Registration of Births and Deaths Act 1899 as amended in 1945 and the rules framed thereunder are in force in the rural areas of the Malabar district inclusive of Kasaragod taluk.

(ii) The Travancore-Cochin Registration of Births and Deaths Act 1953 (Act VIII of 1953) and the rules framed thereunder are in force throughout the rural areas of the erstwhile Travancore-Cochin State.

Present System of Collection and Compilation of Vital Statistics

1.7 According to the existing Acts it is obligatory on the part of the people to record the details of births and deaths to the registering authority. The events are recorded in the prescribed registers kept for that purpose. The Registrar who is the primary authority to record the vital events has to furnish the data directly to the compiling authority. The Bureau of Economics and Statistics is the present compiling and reporting authority on the Vital Statistics of Kerala State. Formerly this work was done by the Department of Public Health. The State Bureau of Economics and Statistics has introduced significant measures for easy collection, sorting and compilation of Vital Statistics. They have designed separate birth and death cards for copying relevant information of births and deaths from the concerned registers kept in the office of the primary agency. These filled in cards are then forwarded to the Director, Bureau of Economics and Statistics, Trivandrum for compilation and tabulation. These cards are coded normally before they are transferred to the Mechanical Tabulation Section. The figures furnished back by the Mechanical Tabulation Unit are analysed and interpreted by the Vital Statistics Section.

Definition of Vital Events
(adopted by United Nations)

1.8 The definitions as adopted by the United Nations is reproduced below :

Live-birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached ; each product of such a birth is considered live-born.

Death is the permanent disappearance of all evidence of life at any time after live-birth has taken place (post-natal cessation of vital functions without capability of resuscitation). This definition therefore excludes foetal deaths.

Foetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy ; the death is indicated by the fact that after such separation of foetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

Still-birth means late foetal death occurring after twenty-eight completed weeks of gestation or over.

Maternal death is the death caused to a woman by delivery and complications of pregnancy, child-birth and the puerperium.

Infant death is the death occurring to a child under one year of age.

CHAPTER II

QUALITY OF VITAL STATISTICS DATA

Introduction

2.1 The population of Kerala, which stood at 2,635,996 in 1836[1] has risen to 16,903,715 in 1961, has registered an increase of 541.26 per cent during the period 1836 to 1961. The period from 1836 to 1901 has registered an increase of 142.65 per cent as against the growth rate of 164.27 for the last sixty years from 1901 to 1961. During the last decade 1951-61, the population of Kerala has a growth rate of 24.76 per cent.

2.2. The Vital Statistics of the pre-re-organisation units of Kerala are hardly free from the imperfections usually associated with the registration of births and deaths in India. The reorganisation of States at two different stages during the last two decades has made it necessary to consolidate the Vital Statistics of the pre-reorganisation units constituting the Kerala State till the formation of Kerala. The recasting of Vital Statistics data due to these changes in the territorial units is not without its limitations. In the first place, no separate data are available for the Kasaragod taluk and the portion of the Shencottah taluk retained in Kerala. In the second place, the data for some years in the various decades are not available either for one pre-reorganisation unit or another with the result that for such years the entire data have to be omitted. Subject to these limitations, an attempt has been made to arrive at the rates of registered births, deaths and natural increase for Kerala for the decades 1921-30 to 1951-60. The following table gives the mean decennial growth rate as per the census and the natural increase as per the registration records for the State for the last four decades.

Table 2.1

GROWTH RATE AND NATURAL INCREASE, KERALA—1921 TO 1960

Decade	Mean Decennial growth rate (Census) per cent	Natural increase (Registered) per cent
1	2	3
1921-30	2.19	1.27
1931-40	1.60	1.07
1941-50	2.28	1.34
1951-60	2.48	1.60

According to the 1961 Census, the number of immigrants to Kerala from other States and Union territories in India comes to 233,416 and the number of emigrants from Kerala to other States and Union Territories comes to 624,444. Kerala has thus suffered a net loss of 391,028 persons consequent on the migration. Though the effect of migration is very small, the low percentage of natural increase compared to the growth rate speaks for the poor registration of births and deaths in Kerala. The succeeding paragraphs deal with the quality of registration of births and deaths in the State.

Birth-rates of Kerala compared to other States

2.3 Among the States in India, barring Madras, Kerala has the lowest computed birth-rate during 1951-60 with 38.9 per 1,000 population as against 41.7 for all-India. Kerala has the lowest computed death-rate among the States in India with 16.1 as against an all-India rate of 22.8. The percentage of omission in deaths is more in Kerala than the births like most of the States in India. As in other parts of India, the quality of Vital Statistics registration in

1 Census of India 1961, Vol. VII, Part 1 A'(i), General Report, Kerala—page 71

Kerala is also not satisfactory. It is evident from the following figures.

Table 2.2

BIRTH AND DEATH RATES AND THE EXTENT OF OMISSION BY STATES, 1951-60

State	Birth-rate 1951-60			Death-rate 1951-60		
	Computed	Registered	Percentage of omission	Computed	Registered	Percentage of omission
1	2	3	4	5	6	7
All India	**41.7**	**22.1**	**47.0**	**22.8**	**11.3**	**50.4**
Andhra Pradesh	39.7	NA		25.2	NA	
Assam	49.3	9.7	80.3	26.9	4.4	83.6
Bihar	43.4	15.0	65.4	26.1	7.9	79.7
Gujarat	45.7	28.8*	37.0	23.5	12.6*	46.4
Kerala	38.9	23.8*	38.8	16.1	7.8	51.6
Madhya Pradesh	43.2	19.7	52.1	23.2	12.3	47.4
Madras	34.9	28.1	19.5	22.5	14.5	35.4
Maharashtra	41.2	32.3	21.6	19.8	15.2	24.3
Mysore	41.6	NA		22.2	NA	
Orissa	40.4	24.7	38.8	22.9	15.5	32.3
Punjab	44.7	39.9	10.8	18.9	14.7	22.2
Rajasthan	42.7	NA		19.4	NA	
Uttar Pradesh	41.5	15.9	61.7	24.9	9.2	63.1
West Bengal	42.9	21.5	50.0	20.5	8.9	56.6

NA—Not available

* Figures made available by the Census Office, Kerala

Source: Vital Statistics of India for 1961, issued by the Registrar General, India, Page XL

Sample Surveys conducted during the Decade

2.4 Two sample surveys were conducted during the decade 1951-60 for estimating the total number of births and deaths in Kerala State. The survey was conducted by the State Statistics Department in the rural areas of the erstwhile Travancore-Cochin State in September 1956 for estimating the births and deaths for the calendar year 1955. The survey reveals that the birth-rate in the rural areas of the erstwhile Travancore-Cochin State is 40.96 against the registered birth-rate of 22.39. The death-rate as revealed by the survey is 9.35 while the registered death-rate is 6.29 which yields an omission of 32.73 per cent deaths which is less than the percentage of omission in births viz. 45.34 per cent. Coming to the rural areas of districts of Travancore-Cochin, the Kottayam district has the lowest percentage of omission in births while the Quilon district has the lowest percentage of omission in deaths. The following table gives the district-wise figures and the extent of omission.

Table 2.3

BIRTH AND DEATH RATES FOR RURAL AREAS OF TRAVANCORE-COCHIN STATE AS PER THE SAMPLE SURVEY COMPARED TO REGISTERED RATES, 1955

State/ District	Estimated rates for 1955 as per the sample survey conducted in 1956		Rates as per registration returns received in 1955		Percentage of omission	
	BR	DR	BR	DR	BR	DR
1	2	3	4	5	6	7
Travancore-Cochin State	**40.96**	**9.35**	**22.39**	**6.29**	**45.34**	**32.73**
Trivandrum District	54.22	9.98	20.99	6.05	61.29	39.38
Quilon ,,	31.81	7.44	24.15	6.99	24.08	6.05
Kottayam ,,	33.61	7.21	30.43	8.39	9.46	16.37
Trichur ,,	30.07	14.22	15.19	3.97	49.48	72.09

BR—Birth-rate DR—Death-rate

Source: Vital Statistics Bulletin No. 4 for the quarter ending December 1956, page 3 published by the Director of Statistics, Kerala

2.5 The National Sample Survey Organisation collected a wealth of data on births and deaths for the rural areas of all the States in the Indian Union through their Fourteenth Round. Seventy-two sample villages of Kerala State were selected for the above survey. The data was collected through six sub-rounds. In the first two sub-rounds detailed particulars of persons normally resident in the household, sex, age, marital status and for ever-married females

total number of live-births, place of birth, type of birth, type of medical attendance etc. were collected. Only a brief schedule was canvassed in the third to sixth sub-rounds In these sub-rounds the same information on births and deaths and household characteristics as in the first two sub-rounds were also collected. In this Survey the number of births and deaths in the household was recorded with the month of the event for the two years preceding the date of survey and those for the year preceding the date of survey only have been taken into account for calculating the vital rates. This method is aimed at minimising omissions in reporting cases arising from lapse of memory. In calculating birth and death rates the population as enumerated was taken as the base. According to the survey the estimated birth and death rates for the rural areas of Kerala State is 39.6 and 11.5 respectively against the registered birth-rate of 23.6 and death-rate of 7.1 for 1958. The results of the survey are furnished below.

Table 2.4

BIRTH AND DEATH-RATES FOR RURAL AREAS OF KERALA STATE (N. S. S. 14th ROUND 1958-59)

	Birth-rate per 1000 persons			Death-rate per 1000 persons		
Sub-rounds	Combined sample	Sample 1	Sample 2	Combined sample	Sample 1	Sample 2
1	2	3	4	5	6	7
All sub-rounds	**39.61**	**45.30**	**34.81**	**11.53**	**12.96**	**10.33**
First	32.59	29.76	35.08	13.45	20.86	10.65
Second	42.41	44.04	41.28	12.39	12.76	12.14
Third	34.56	35.65	33.90	10.10	9.73	10.33
Fourth	40.33	48.35	31.44	10.91	12.13	9.57
Fifth	33.48	35.95	31.92	10.19	12.38	8.81
Sixth	37.56	40.19	34.00	9.94	10.14	9.68

Source : National Sample Survey, Fourteenth Round July 1958—July 1959, No. 48 Preliminary estimates of birth and death rates and of the rate of growth of population, pp 43-44.

Quality of Birth Registration

2.6 The succeeding two paragraphs deal with the quality of registration of births and deaths at the taluk level. The registered birth-rates for 1961 were grouped into four ranges viz. very low, low, moderate and good. The table given hereunder gives the number of taluks under each of these groups.

Table 2.5

QUALITY OF BIRTH REGISTRATION, KERALA-1961

Range	Birth-rate per 1,000 population	Number of taluks
1	2	3
Very low	Below 15	2
Low	15-24	25
Moderate	25-29	19
Good	30+	9

It is evident from the above statement that the quality of registration in about the half the number of taluks in Kerala State is not at all satisfactory. The quality of registration is very low in Mukundapuram and Udumbanchola taluks with 10.59 and 11.47 births per 1,000 population respectively. The taluks which are considered to have good system of birth registration are Kasaragod (33.03), Tirur (32.67), Cannanore (31.91), Kozhikode (31.21), Meenachil (31.04), Tellicherry (30.86), Vaikom (30.81), Quilon (30.74) and Thodupuzha (30.63).

Quality of Death Registration

2.7 For the analysis of death-rates recorded in 1961 the taluks are classified into three ranges viz. low, moderate and good as given below :

Table 2.6

QUALITY OF DEATH REGISTRATION, KERALA—1961

Range	Death-rate per 1,000 population	Number of taluks
1	2	3
Low	Below 5	10
Moderate	5-9	37
Good	10+	8

The taluks which come under the 'low' quality of death registration are Mukundapuram (2.29), Udumbanchola (3.11), Alwaye (3.79), Pathanamthitta (3.89), Kottarakkara (4.16), Trichur (4.49), Chirayinkil (4.51), Talappilly (4.58), Nedumangad (4.68) and Cranganore (4.80) taluks. The quality of registration is considered to be good in Palghat (12.35), Ponnani (11.85), Kozhikode (11.26), Tirur (11.25), Ottappalam (10.95), Alathur (10.74), Perintalmanna (10.69) and Kasaragod (10.45) taluks. Majority of taluks fall in the moderate group. Two maps of Kerala showing the quality of registration of births and deaths are given separately.

Reasons for the Low Registration of Vital Events

2.8 There are various reasons for the low registration of vital events in the State. Lack of comparability in definition adopted from time to time, deficiencies and inaccuracies in the system of reporting, inapplication of laws and regulations stringently and frequent changes in mode of collection, compilation and tabulation are some of the limitations of Vital Statistics data. The Report on health conditions of Madras State (1953) throws some light on this aspect. Eventhough the findings of the Report covered only the erstwhile Madras State inclusive of Malabar district it is also generally applicable to other regions of Kerala State. The extract of the Report is furnished below:

"It is considered that one Birth and Death Registrar is required to register births and deaths occurring in a population of about 20,000 in Municipal areas. On this basis it is seen that 19 of the 61 municipalities (in the Madras State) have not employed the requisite number of Birth and Death Registrars. Consequently, the jurisdiction of each Registrar has necessarily to be large and the work heavy. This in turn leads to defective registration and many births and deaths escape registration in municipal areas. It is, therefore suggested that all municipalities employ the requisite number of Births and Deaths Registrars to carry out the work of registration of births and deaths efficiently. In some municipalities, the Birth and Death Registrars are detailed for other work like vaccination, inoculation etc. during epidemics. This also affects efficiency of registration of births and deaths.

The Panchayats are semi-urban in character and have large populations extending over wide areas. So, it will be difficult for the headman to register all the births and deaths that occur in the area. It is, therefore, suggested, in the interest of efficiency that registration of births and deaths in the Panchayat areas should be taken over by the Panchayats and that Special Birth and Death Registrars should be appointed for the purpose.

There are various reasons for the poor state of registration in the villages referred to above.

(a) It has been brought to my notice as well as that of Government that registers of births and deaths and the form for submitting the monthly birth and death returns have not been supplied in time as required by statute with the results that the vital events are registered in scraps of papers or in small note books. This affords opportunity to the Registrars either to tamper with the entries or interpolate entries. The registers of births and deaths are valuable records and extracts therefrom are admitted as proof under the Indian Evidence Act. In order that the statutory obligation is enforced properly, it is necessary that the Registrar are supplied with registers and necessary forms in time before the calendar year begins.

(b) The reports from the District Health Officers reveal that the village headmen are under the mistaken impression that when once the Act III of 1899 is extended to an area, it is no more their responsibility to trace births and deaths and register them. Under Section 15 of the Act III of 1899, it

is required that every Registrar shall ascertain and register all particulars required to be registered touching every birth or death as the case may be, which has not already been registered. This provision should be specially brought to the notice of all village headmen by the Revenue Department. Secondly, the Registrars do not evince the interest that the subject deserves. For instance, it is reported by the District Health Officers that the fortnightly statements showing the unregistered births and deaths detected by them are not being generally submitted to the Tahsildars as required under rule 15 of the rules issued under the Act III of 1899. Even in the few cases where such reports are sent, the action taken by the Tahsildars is not adequate.

(c) The legal provisions require that the occurrence of births and deaths should be reported to the Registrars by the concerned parties. The people are not aware of this statutory obligation as most of them are illiterate. It is suggested that the people should be educated in this regard by beat of tom-tom periodically in villages, preferably once a month.

(d) In respect of cases of unregistered births and deaths detected by the Health Staff, reports are sent to the Tahsildars furnishing all necessary particulars for sanctioning prosecution of offenders. Many Health Officers have reported that the action taken by the Tahsildars is not satisfactory. Either no action is taken or most of the offenders are let off with a mere warning. It has been pointed out in several annual reports of this department that the Tahsildars should be advised to take stricter measures. But so far, no improvement has been noticed. I have, therefore, suggested to Government that the District Health Officers should also be empowered to sanction prosecution against the offenders.

(e) The Government have issued directions to see that signboards showing the hours of work of the Registrar should be displayed prominently at the Office of the Registrar and necessary instructions to the Collectors were also issued by the Board of Revenue. However out of the 12,747 villages visited by the Health Staff during the year only in 979 villages have the signboards been provided.[1]

2.9 Apart from the limitations described above there are a few more shortcomings in the collection and tabulation of data. There are instances of errors of births and deaths statistics when they are copied down from the Registers to the Birth and Death Cards. The card system was introduced by the Kerala State Statistics Department only in 1958. At present there are no arrangements for verifying the entries in the cards before they are despatched to the Bureau of Economics and Statistics. Even some of the entries in the Birth and Death Registers are far from accurate. They lack in details such as sex, age, time of occurrence, name and occupation of parents and cause of death. Generally speaking the registration of births and deaths is inadequate and incomplete and requires modifications. The methods that are now taken for the improvement of registration is discussed in detail in Chapter V of this Report.

Difficulties in Recasting the figures for Kerala State for the Period 1951–61

2.10 The Kerala State was carved out of the erstwhile Travancore-Cochin State (except Thovala, Agastheeswaram, Kalkulam, Vilavancode and Shencottah taluks) and the erstwhile Malabar district and Kasaragod (present Kasaragod and Hosdrug taluks) taluk of South Kanara district. The pattern of collection of data and procedure of tabulation vary in these areas considerably. The help rendered by the District Health Office, Mangalore (S. Kanara) and the Demographic Division of the Bureau of Economics

1 Report on the health conditions in Madras State, 1953, pages 3–4

and Statistics, Kerala are worth mentioning in this connection. Reports on the health conditions of Madras State published annually by the Government of Madras was of immense use for recasting the figures. There were a good number of changes in jurisdiction at the taluk and village level in October 1956 in the erstwhile Travancore-Cochin State and in January 1957 in the Malabar district. All these changes have restrained us from recasting the figures below the State level for the period 1951-58. The changes in jurisdiction during the period 1951-61 and the population involved in those changes are furnished as an Appendix to this Report.

CHAPTER III

NATALITY STATISTICS FOR THE DECADE 1951-61

Introduction

This chapter is devoted to analyse the number of births, birth-rates and their differentials for the decade 1951–61 by rural-urban break-up and by administrative regions. As explained in the earlier chapter, there was very great difficulty in recasting the birth statistics for the period 1951–61 due to the Reorganisation of States and the consequent changes in the boundaries of the districts and taluks.

Birth and Birth-rates during the Decade

3.2 In 1961 there were 425,751 live-births registered in Kerala State as against 362,122 in 1951. Eventhough the number of births had shown an increase of 17.57 per cent the birth-rate had actually declined from 26.5 in 1951 to 25.0 in 1961. During the decade 1951 to 1961, the birth-rates of individual years show fluctuations but the 5 year averages indicate a very low declining trend. The lowest birth-rate recorded in the decade is in 1954 with 20.4 while the highest is in 1952 with 27.8 for 1,000 population. The following table gives the year-wise number of births registered and birth-rates for the decade 1951–61.

Table 3.1

LIVE-BIRTHS AND BIRTH-RATES, KERALA, 1951-61

Year	Mid year population ('000)	Live-births			Birth rate per 1,000 population	5 year average
		persons	males	females		
1	2	3	4	5	6	7
1951	13,649	362,122	185,326	176,796	26.5	
1952	13,952	388,014	199,270	188,744	27.8	
1953	14,264	352,910	181,153	171,757	24.7	23.9
1954	14,583	297,709	153,414	144,295	20.4	
1955	14,911	369,560	190,246	179,314	24.8	
1956	15,244	337,638	174,683	162,955	22.1	
1957	15,587	356,964	184,126	172,838	22.9	
1958	15,937	374,695	192,943	181,752	23.5	
1959	16,294	406,147	209,085	197,062	24.9	23.8
1960	16,658	376,664	194,554	182,110	22.6	
1961	17,029	425,751	219,022	206,729	25.0	

Distribution of Births

3.3 The distribution of live-births in each quarter of the year for the last five years is given in the following table. There is no appreciable difference in the distribution of births between different quarters of the year for various years.

Table 3.2

DISTRIBUTION OF LIVE-BIRTHS IN EACH QUARTER FOR THE LAST FIVE YEARS, KERALA

Quarter	1957	1958	1959	1960	1961
1	2	3	4	5	6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
First	22.8	20.9	24.4	22.6	24.4
Second	27.2	22.6	25.4	24.0	25.8
Third	24.9	29.2	24.9	25.4	25.4
Fourth	25.1	27.3	25.3	28.0	24.4

3.4 The month-wise births available for 1961 show that the maximum number of births is registered in the month of July closely followed by the month of June. The registration of births in the month of January is the lowest when compared to other months.

Table 3.3

MONTH-WISE DISTRIBUTION OF LIVE-BIRTHS, KERALA, 1961

Month	Number of live-births	Per cent
1	2	3
Total	**425,751**	**100.0**
January	31,144	7.3
February	36,103	8.5
March	36,756	8.6
April	34,552	8.1
May	36,765	8.6
June	38,715	9.1
July	40,653	9.6
August	32,770	7.7
September	34,533	8.1
October	33,679	7.9
November	34,668	8.2
December	35,413	8.3

Birth-rates by Major Religions

3.5 According to the figures available for 1961 Muslims have got higher birth-rate

than Hindus and Christians. The following table gives the birth-rates of major religions as in 1961.

Table 3.4

BIRTH-RATES BY MAJOR RELIGIONS, KERALA—1961

Religion	Birth-rate
1	2
Hindus	25.0
Muslims	26.3
Christians	23.7

Sex-ratio at Birth

3.6 Male births outnumber female births. The sex-ratio at birth (number of female births per 1,000 male births) for individual years in the decade 1951–61 shows a fluctuating trend. The lowest sex-ratio is recorded in 1956 with 933 while the highest in 1951 with 954. The statement given hereunder shows the sex-ratio at birth for the period 1951-61.

Table 3.5

SEX-RATIO AT BIRTH, KERALA, 1951–61

Year	Number of female births per 1,000 male births
1	2
1951	954
1952	947
1953	948
1954	941
1955	943
1956	933
1957	939
1958	942
1959	942
1960	936
1961	944

The sex-ratio at birth in 1961 for Hindus, Muslims and Christians are 947, 940 and 946 respectively.

3.7 The following table gives the district-wise sex-ratio at birth for the period 1959 to 1961. The figures for the period 1951 to 1958 as per the present jurisdiction of district are not available.

Table 3.6

SEX-RATIO AT BIRTH BY DISTRICTS, 1959-61

District	Sex-ratio at birth		
	1959	1960	1961
1	2	3	4
Cannanore	958	941	935
Kozhikode	967	946	944
Palghat	950	945	948
Trichur	927	916	960
Ernakulam	928	946	932
Kottayam	940	949	949
Alleppey	911	916	935
Quilon	942	920	953
Trivandrum	940	935	945

Birth and Birth-rates by Districts

3.8 The birth-rate for 1960 has a slight fall when compared to the other two years in all the districts. Among the districts of Kerala State, Cannanore district has the highest birth-rate while the lowest birth-rate pertains to Trichur district in all the years. The table given hereunder gives the live-births registered and the birth-rates by districts for three years.

Table 3.7

LIVE-BIRTHS AND BIRTH-RATES, 1959–61

District	Number of live-births†			Birth-rate*		
	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7
Cannanore	51,465	46,432	53,923	30.1	26.5	30.0
Kozhikode	62,645	56,861	70,650	24.9	22.1	26.8
Palghat	43,592	40,705	45,186	25.1	23.1	25.3
Trichur	28,699	27,503	29,592	18.1	17.0	17.9
Ernakulam	40,027	38,297	44,530	22.2	20.9	23.8
Kottayam	45,918	43,935	46,842	27.6	25.8	26.8
Alleppey	44,327	39,504	43,866	25.2	22.1	24.1
Quilon	47,032	43,405	48,980	25.3	22.7	25.0
Trivandrum	42,442	40,022	42,182	25.4	23.3	24.0

† Vital Statistics Bulletin No. 14, issued by the Director of Statistics, Kerala, (Table 14)
Vital Statistics Bulletin No. 18, issued by the Director of Statistics, Kerala, page 13
Vital Statistics Bulletin No. 22, issued by the Director of Statistics, Kerala, page 22

Source : *Vital Statistics of India for 1961 issued by Registrar General, page 10.

Birth and birth-rates by rural and urban areas

3.9 All municipal towns and corporations are treated as urban for the purpose of collecting vital statistics data. There is wide variations between rural and urban birth-rates. The higher birth-rates in the urban areas may be due to the *de facto* system of registration. A good number of women in the rural areas have their deliveries in the hospitals located in the urban areas. All these births are automatically registered in the registers kept in the hospitals. This has resulted in the high birth-rates in towns. The table 3.8 gives the district-wise birth-rates as in 1961 for both rural and urban areas.

Table 3.8

RURAL-URBAN BIRTH-RATES BY DISTRICTS, 1959—61*

	Birth-rate					
	Rural areas			Urban areas		
District	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7
Cannanore	29.7	26.0	29.3	38.0	36.3	44.2
Kozhikode	23.4	20.5	25.0	40.0	38.2	45.0
Palghat	24.4	22.3	24.6	36.4	35.9	36.6
Trichur	16.8	14.8	15.6	32.5	47.0	50.7
Ernakulam	20.1	18.3	20.5	32.4	33.5	40.0
Kottayam	26.6	25.1	25.8	40.6	34.5	39.7
Alleppey	23.3	20.6	22.8	36.9	30.9	31.6
Quilon	23.4	21.2	22.9	63.4	53.8	68.4
Trivandrum	21.0	18.0	18.9	48.1	51.1	50.3

Source : *Vital Statistics of India for 1961, issued by the Registrar General, page 10

Table 3.9

BIRTH-RATE IN MUNICIPAL TOWNS WITH A POPULATION OF 30,000 AND ABOVE, 1951-61

Municipal town/ Corporation	Birth-rate										
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey	NA	NA	NA	NA	NA	27.1	31.3	22.0	33.6	26.5	23.9
Calicut	43.3	49.5	40.9	38.3	47.2	NA	46.5	47.4	48.6	42.9	50.6
Cannanore	30.6	33.5	25.2	26.7	29.9	NA	27.1	31.0	27.1	24.4	32.8
Changanacherry	NA	NA	NA	NA	NA	27.7	29.6	29.3	33.3	28.0	30.8
Ernakulam	NA	NA	NA	NA	NA	35.9	36.2	29.1	32.9	23.2	29.1
Fort-Cochin	43.3	51.1	49.1	44.7	48.8	NA	42.8	48.8	44.5	33.7	37.2
Kottayam	NA	NA	NA	NA	NA	39.1	38.6	36.8	43.8	36.3	39.8
Mattancherry	NA	NA	NA	NA	NA	34.3	30.7	28.4	33.2	40.5	51.3
Palghat	36.1	35.9	31.1	35.1	38.5	NA	39.4	35.3	36.9	38.1	41.1
Quilon	NA	NA	NA	NA	NA	56.7	53.9	59.7	63.9	55.1	68.4
Tellicherry	46.5	50.1	43.7	43.2	47.4	NA	43.7	46.7	49.3	48.5	55.8
Trichur	NA	NA	NA	NA	NA	35.9	42.1	33.7	40.2	56.7	59.9
Trivandrum	NA	NA	NA	NA	NA	39.7	26.5	36.5	52.6	55.7	53.2

Source : Vital Statistics of India for 1961 issued by the Registrar General, India
NA—Not available

3.10 Among the municipal towns and Corporations in the State, Quilon municipal town has recorded the highest birth-rate. Table 3.9 gives the birth-rates for the period 1951-61 of all municipal towns and Corporations which have a population of above 30,000.

3.11 The birth-rates as in 1961 of the municipal towns which have a population of less than 30,000 are furnished below. Among these municipal towns the highest birth-rate is recorded by Thiruvalla town closely followed by Kunnamkulam and Mavelikara towns. The lowest birth-rate is recorded by Irinjalakuda municipal town with only 16.6 births per 1,000 population.

Table 3.10

BIRTH-RATE IN MUNICIPAL TOWNS WITH A POPULATION OF LESS THAN 30,000, 1961

District	Town	Birth-rate
1	2	3
Kozhikode	Badagara	21.3
Palghat	Chittur–Thathamangalam	23.0
Trichur	Irinjalakuda	16.6
	Kunnamkulam	56.6
Ernakulam	Alwaye	51.5
	Muvattupuzha	54.2
	Parur	45.4
	Perumbavoor	24.4
Kottayam	Palai	46.8
	Vaikom	52.3
Alleppey	Thiruvalla	57.3
	Mavelikara	55.7
	Sherthalai	44.7
	Kayamkulam	22.9
Trivandrum	Attingal	37.1
	Neyyattinkara	30.6

Birth-rates by taluks

3.12 As mentioned earlier, there is very great difficulty in recasting the taluk-wise figures for individual years for the decade 1951–61 with rural-urban break-up. Hence the birth statistics of 1961 alone is furnished here for the rural and urban areas of each taluk.

Table 3.11

BIRTH-RATE BY TALUKS, 1961

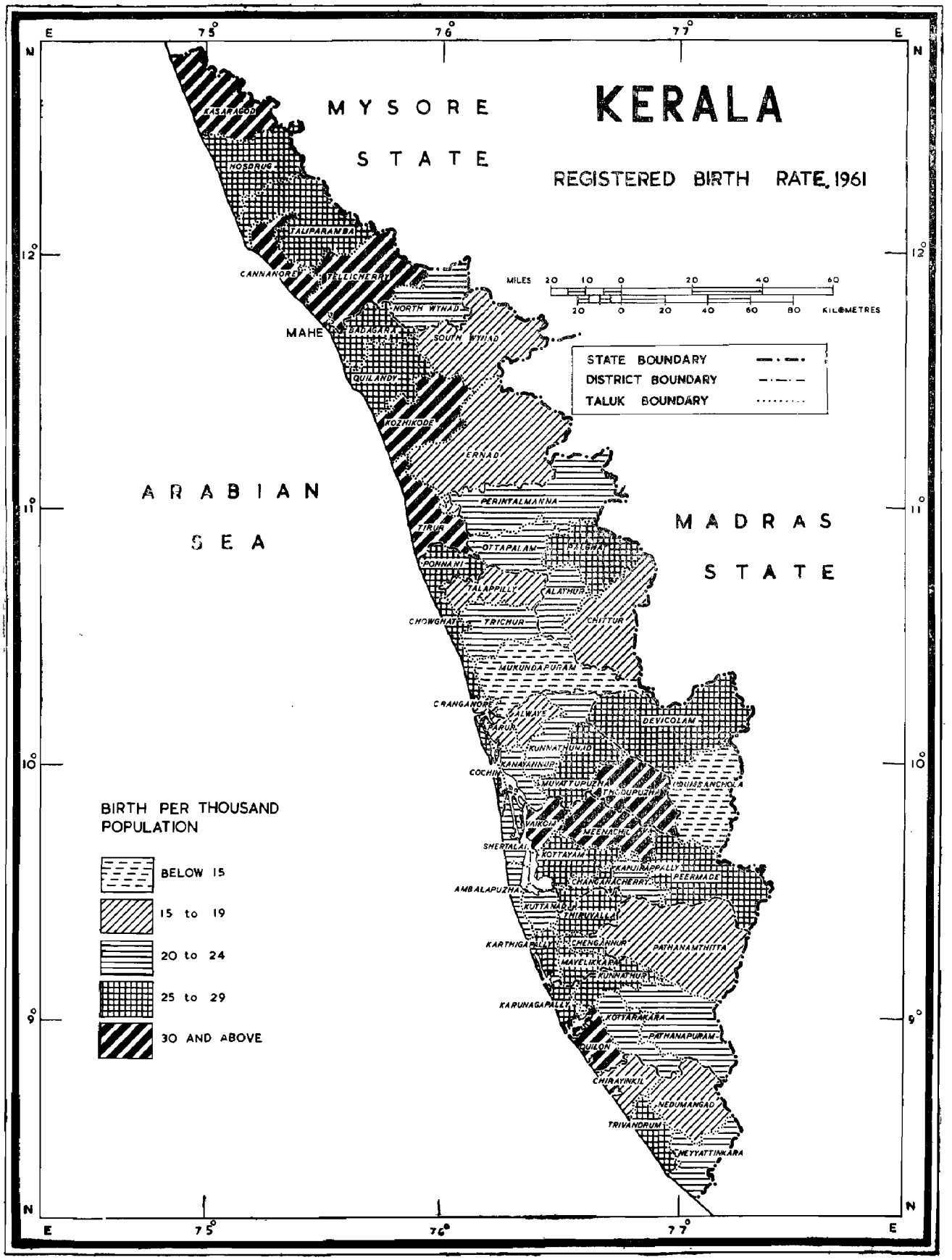
District	Taluk	Birth-rate		
		Total	Rural	Urban
1	2	3	4	5
Cannanore	Kasaragod	33.0	33.0	...
	Hosdrug	25.3	25.3	...
	Taliparamba	29.2	29.2	...
	Cannanore	31.9	31.9	32.8
	Tellicherry	30.9	28.3	55.8
	North Wynad	24.8	24.8	...
Kozhikode	Badagara	28.2	29.3	21.3
	Quilandy	25.7	25.7	...
	Kozhikode	31.2	23.3	50.6
	Tirur	32.7	32.7	...
	Ernad	17.6	17.6	...
	South Wynad	19.3	19.3	...
Palghat	Perintalmanna	24.8	24.8	...
	Ponnani	29.6	29.6	...
	Ottappalam	25.0	25.0	...
	Palghat	28.0	23.3	41.1
	Alathur	24.9	24.9	...
	Chittur	18.7	18.2	23.0
Trichur	Talappilly	17.3	15.2	56.6
	Trichur	21.1	13.9	59.9
	Chowghat	25.1	25.1	...
	Crangannore	17.8	17.8	...
	Mukundapuram	10.6	10.3	16.6
Ernakulam	Parur	19.5	16.8	45.4
	Alwaye	18.9	15.5	51.5
	Kunnathunad	22.7	22.5	24.4
	Kanayannur	20.7	16.9	29.1
	Cochin	28.5	17.2	47.0
	Muvattupuzha	26.2	23.8	54.2
	Thodupuzha	30.6	30.6	...
Kottayam	Devicolam	26.2	26.2	...
	Udumbanchola	11.5	11.5	...
	Meenachil	31.0	30.1	46.8
	Vaikom	30.8	28.9	52.3
	Kottayam	27.7	26.0	39.8
	Changanacherry	27.5	26.8	30.8
	Kanjirappally	24.0	24.0	...
	Peermade	28.2	28.2	...
Alleppey	Sherthalai	23.2	20.9	44.7
	Ambalapuzha	21.0	18.0	23.9
	Kuttanad	20.7	20.7	...
	Thiruvalla	26.1	23.6	57.3
	Chengannur	22.6	22.6	...
	Karthigapally	25.3	25.7	22.9
	Mavelikara	27.6	25.6	55.7
Quilon	Pathanamthitta	17.7	17.7	...
	Kunnathur	26.5	26.5	...
	Karunagapally	29.4	29.4	...
	Quilon	30.7	22.8	68.4
	Kottarakara	22.8	22.8	...
	Pathanapuram	22.5	22.5	...
Trivandrum	Chirayinkil	18.5	17.3	37.1
	Trivandrum	28.8	11.2	53.2
	Neyyattinkara	21.8	21.4	30.6
	Nedumangad	19.9	19.9	...

Source: 1. Vital Statistics Bulletin No. 22 issued by the Director of Statistics, Kerala, pages 30–34

2. Vital Statistics of India for 1961 issued by the Registrar General, India, page 28

Distribution of births by order of birth

3.13 The percentage distribution of births of various birth orders registered in 1961 is


KERALA
REGISTERED BIRTH RATE, 1961
MYSORE STATE
ARABIAN SEA
MADRAS STATE
MAHE
KASARAGOD
HOSDRUG
TALIPARAMBA
CANNANORE
TELLICHERRY
NORTH WYNAD
BADAGARA
SOUTH WYNAD
QUILANDY
KOZHIKODE
ERNAD
PERINTALMANNA
TIRUR
OTTAPALAM
PONNANI
TALAPPILLY
ALATHUR
CHOWGHAT
TRICHUR
CHITTUR
MUKUNDAPURAM
CRANGANORE
CHALAKUDI
DEVICOLAM
KUNNATHNAD
COCHIN
KANAYANNUR
MUVATTUPUZHA
THODUPUZHA
VAIKOM
MEENACHIL
SHERTALAI
KOTTAYAM
KANJIRAPPALLY
PEERMADE
CHANGANACHERRY
AMBALAPUZHA
KUTTANAD
THIRUVALLA
KARTHIGAPALLY
CHENGANNUR
MAVELIKKARA
PATHANAMTHITTA
KUNNATHUR
KARUNAGAPALLY
KOTTARAKARA
PATHANAPURAM
QUILON
CHIRAYINKIL
NEDUMANGAD
TRIVANDRUM
NEYYATTINKARA
MILES 20 10 0 20 40 60
20 0 20 40 60 80 KILOMETRES
STATE BOUNDARY
DISTRICT BOUNDARY
TALUK BOUNDARY
BIRTH PER THOUSAND POPULATION
BELOW 15
15 to 19
20 to 24
25 to 29
30 AND ABOVE
75°
76°
77°
E
N
12°
11°
10°
9°

furnished below. The data relate to all the towns which have a population of 1 lakh and over in 1951 (i. e. Trivandrum, Calicut and Alleppey). The percentage of first order births is about 21 and the percentage gradually decreases as the birth order increases. About 52 per cent of total births relate to the birth orders less than 4.

Table 3.12

DISTRIBUTION OF BIRTHS BY ORDER OF BIRTHS, 1961

Birth order	Percentage	
1	2	
Total	**100.0**	
1	20.9	
2	16.9	51.9
3	14.1	
4	12.8	
5	11.1	23.9
6	8.7	
7	6.5	
8	4.2	24.2
9	2.3	
10+	2.5	

Still-births

3.14 The still-birth-rate per mille of live-births worked out for the past five years shows a higher rate in urban areas as compared to rural areas. The following table illustrates this.

Table 3.13

STILL-BIRTH-RATE, 1961

Year	Still-birth-rate		
	Total	Rural	Urban
1	2	3	4
1957	12.01	7.50	40.15
1958	10.92	7.10	32.81
1959	10.30	5.44	35.95
1960	11.68	6.95	34.60
1961	9.06	5.07	28.59

3.15 Among the districts of Kerala Quilon district has higher still-birth-rate in rural and urban areas while the lowest rates are recorded in Alleppey district.

CHAPTER IV

MORTALITY STATISTICS

Introduction

Mortality is one of the important components of population growth. 'Throughout its history the lulls and spurts in India's population growth have been governed not by fluctuations in the birth-rate but wide variations in death-rate. In those years when the population remained fixed or even declined the reason lay in a great catastrophe —a famine, an epidemic, a war or combination of these—which took millions of lives. In the so called normal years when numbers increased, the reason lay in the relative absence of such catastrophe.'[1] During the last four decades various measures were taken for the improvement of health and sanitation conditions. These measures had considerable impact on the death-rate, particularly in Kerala. The following table shows that the death-rate in the decade 1951-60 is almost reduced to half from what it was in the decade 1921-30.

Table 4.1

REGISTERED DEATH-RATE, KERALA 1921—60

Decade	Death-rate
1	2
1921-30	14.18
1931-40	12.69
1941-50	11.52
1951-60	7.84

Death and death-rates during the decade

4.2 This chapter deals with only the analysis of mortality statistics of Kerala State for the period 1951-61. Though the death-rates for individual years in the decade show fluctuations, the 5-year averages indicate a declining trend. The following table presents the registered death-rates in Kerala for the years 1951 to 1961.

Table 4.2

DEATH AND DEATH-RATES, KERALA 1951-61

Year	No. of deaths	Registered death-rates	5-year average
1	2	3	4
1951	114,982	8.4	
1952	114,798	8.2	
1953	133,352	9.4	
1954	109,266	7.5	8.1
1955	121,600	8.2	
1956	108,894	7.1	
1957	143,229	9.2	
1958	115,358	7.2	
1959	120,815	7.4	7.5
1960	109,243	6.6	
1961	123,456	7.3	

Distribution of deaths

4.3 The distribution of the total number of deaths in the different quarter of the year are given in the following table for the years 1957 to 1961. Considering the average for the five years, 30 per cent of the total deaths are registered in the third quarter.

Table 4.3

DISTRIBUTION OF DEATHS BY EACH QUARTER FOR THE LAST FIVE YEARS, KERALA

	Percentage distribution of deaths					Average for 5 years
Quarter	1957	1958	1959	1960	1961	(1957-61)
1	2	3	4	5	6	7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
First	18.8	25.2	21.4	20.7	22.2	21.6
Second	23.8	25.2	26.1	24.1	23.9	24.6
Third	33.6	28.1	30.0	27.3	30.9	30.0
Fourth	23.8	21.5	22.5	27.9	23.0	23.8

1 India and Pakistan by Kingley Davis

4.4 A month-wise analysis of the number of deaths registered during 1961 shows that the month of July has the highest number of deaths registered both in the rural and urban areas.

Table 4.4

MONTH-WISE DISTRIBUTION OF DEATHS, KERALA—1961

Month	Total	Rural	Urban
1	2	3	4
Annual	**100.0**	**100.0**	**100.0**
January	7.7	7.8	6.8
February	7.4	7.7	5.9
March	7.1	7.2	6.6
April	6.9	6.7	7.8
May	7.9	8.0	7.3
June	9.1	9.1	8.8
July	11.1	11.1	11.0
August	9.9	10.0	9.4
September	9.9	9.8	10.9
October	8.4	8.5	8.0
November	7.4	7.1	9.1
December	7.2	7.0	8.4

Deaths by major religions

4.5 It is worthwhile to note that Muslims has got the highest death-rate in 1961 with 7.9 when compared to other religions. Christians has got a lower death-rate with 5.3. The following table gives the death-rates by major religions as in 1961.

Table 4.5

DEATH-RATES BY MAJOR RELIGIONS, KERALA—1961

Religion	Death-rate
1	2
Muslims	7.9
Hindus	7.7
Christians	5.3

Deaths and death-rates by districts

4.6 As explained in the earlier chapters, the territorial changes that have taken place during the decade have considerably limited the scope presentation of vital statistics data in this report. The district-wise figures are available only for the period 1959 to 1961. The subjoined table gives the number of deaths and death-rates for the years 1959 to 1961.

Table 4.6

DEATH AND DEATH-RATES BY DISTRICTS, 1959—61

District	Number of deaths†			Death rate*		
	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7
Cannanore	16,993	15,375	16,281	9.9	8.8	9.1
Kozhikode	23,269	20,707	24,346	9.2	8.0	9.2
Palghat	21,008	16,312	19,013	12.1	9.3	10.7
Trichur	8,255	7,176	7,610	5.2	4.4	4.6
Ernakulam	10,133	9,098	10,955	5.6	4.9	5.9
Kottayam	10,917	10,500	11,994	6.6	6.2	6.9
Alleppey	11,184	11,257	12,098	6.4	6.3	6.6
Quilon	8,986	9,395	10,864	4.8	4.9	5.5
Trivandrum	10,070	9,423	10,295	6.0	5.0	5.9

Source * Vital Statistics of India for 1961 issued by Registrar General, page 10

† Vital Statistics Bulletin No. 14 issued by Director of Statistics, Kerala (Table 14)
„ No. 18 „ page 13
„ No. 22 „ page 22

The above table reveals that the erstwhile Malabar region which consists of Cannanore, Kozhikode and Palghat districts have higher death-rates. This is largely due to the better registration system.

Death-rates by rural-urban areas

4.7 According to the data for 1961 the death-rates in the rural areas of the State is only 6.9 against the urban death-rate of 11.0. As explained in para 3.9, the *de facto* system of registration and better hospital facilities in towns are responsible for the high death-rate in urban areas when compared to the rural areas. The table given hereunder presents the death-rates for the last four years by rural-urban areas.

Table 4.7

RURAL-URBAN DEATH-RATES, KERALA 1958 To 61

Year	Death-rates	
	Rural	Urban
1	2	3
1958	6.8	11.6
1959	7.0	11.9
1960	6.2	10.2
1961	6.9	11.0

Source :—Vital Statistics of India for 1961, issued by Registrar General, page 3

4.8 The rural areas of Palghat district has recorded the highest death-rate with 10.4 in 1961 while the lowest is Trichur district with only 4.3. Only the rural areas of the districts of Cannanore, Kozhikode and Palghat have death-rates above the State average. In the urban areas, Kozhikode district ranks first among the districts of Kerala in respect of death-rate while Alleppey district ranks last. The three districts of the erstwhile Malabar region viz., Cannanore, Kozhikode and Palghat, and the Trivandrum district have death-rates above the State urban death-rate. The following table gives the rural-urban death-rates by districts.

Table 4.8

RURAL-URBAN DEATH-RATES BY DISTRICTS, 1961

District	Death-rate	
	Rural	Urban
1	2	3
Cannanore	8.9	13.1
Kozhikode	8.5	16.7
Palghat	10.4	14.6
Trichur	4.3	9.1
Ernakulam	5.3	8.5
Kottayam	6.7	9.3
Alleppey	6.6	6.9
Quilon	5.4	9.5
Trivandrum	4.6	12.6

Source :—Vital Statistics of India for 1961 issued by Registrar General, Page 10

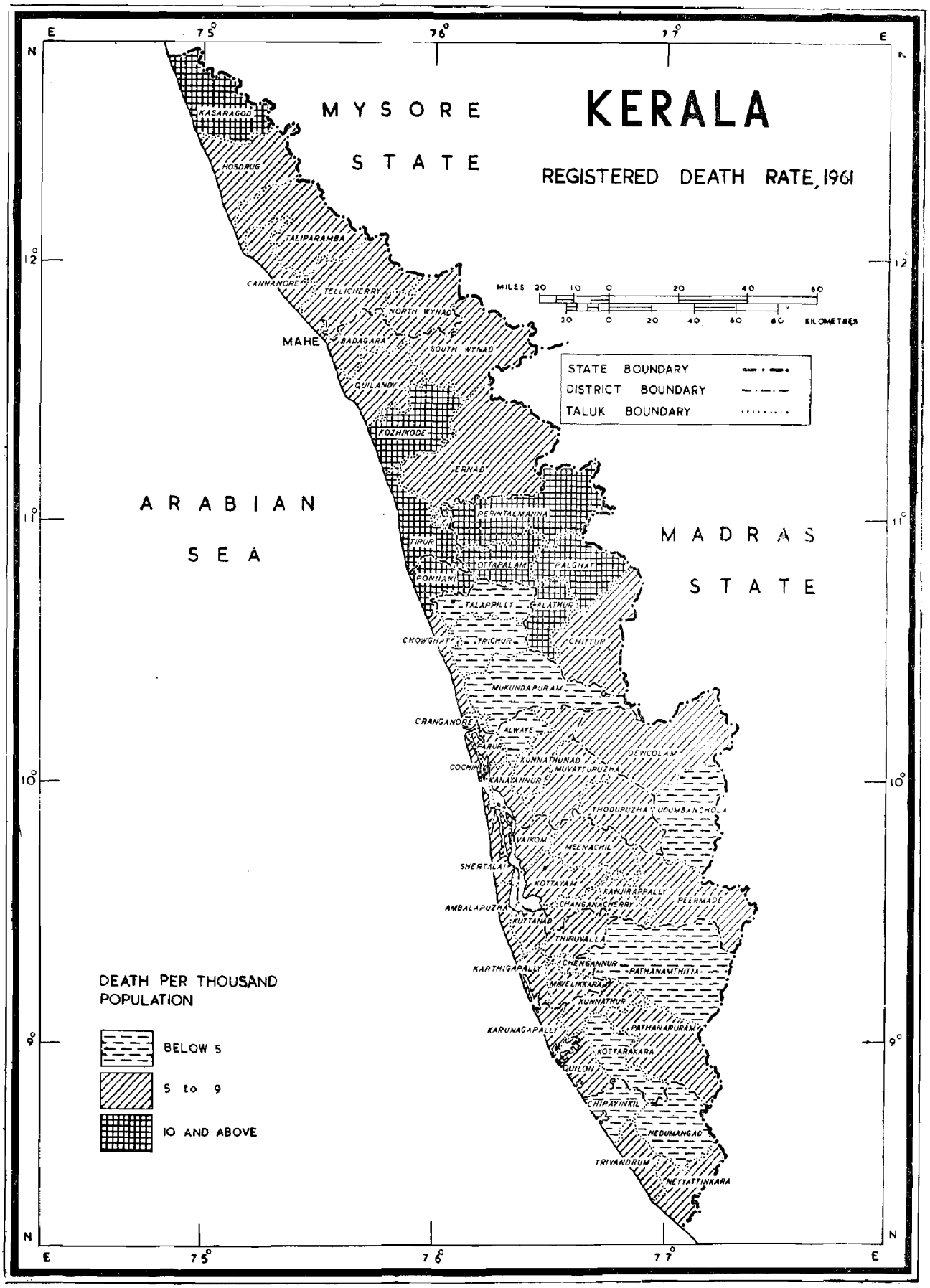
4.9 Among the municipal towns having a population 30,000 and above Calicut town of Kozhikode district has registered the highest death-rate. All the towns in the erstwhile Malabar district (viz. Calicut, Cannanore, Fort Cochin, Palghat and Tellicherry) have recorded higher death-rates when compared to towns in the erstwhile Cochin and Travancore regions. This shows that the registration in these areas are significantly better. The following table gives the death-rates in these municipal towns.

Table 4.9

DEATH-RATES IN MUNICIPAL TOWNS WITH A POPULATION OF 30,000 AND ABOVE, 1951-61

Municipal town/ Corporation	Death-rates										
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11	12
Alleppey	NA	NA	NA	NA	NA	8.0	8.1	5.9	6.7	8.2	5.2
Calicut	22.6	19.9	23.2	19.2	22.2	NA	23.9	22.1	21.4	19.1	19.8
Cannanore	13.0	16.0	18.7	13.1	14.0	NA	13.8	12.1	13.5	10.3	10.0
Changanacherry	NA	NA	NA	NA	NA	6.6	7.2	6.1	7.0	5.3	6.1
Ernakulam	NA	NA	NA	NA	NA	11.1	13.9	8.4	10.9	6.4	7.0
Fort Cochin	18.3	16.9	19.3	19.0	15.7	NA	17.3	18.6	13.4	12.7	12.2
Kottayam	NA	NA	NA	NA	NA	11.2	11.2	12.1	9.4	8.1	11.8
Mattancherry	NA	NA	NA	NA	NA	8.6	8.1	11.2	6.7	6.6	7.3
Palghat	19.0	19.3	24.5	18.1	16.2	NA	18.4	17.8	19.9	14.4	15.8
Quilon	NA	NA	NA	NA	NA	9.6	11.3	10.3	10.0	7.8	9.5
Tellicherry	18.2	19.6	19.8	16.8	20.2	NA	21.3	17.7	16.1	15.6	16.4
Trichur	NA	NA	NA	NA	NA	7.3	12.4	11.8	11.1	9.2	9.7
Trivandrum	NA	NA	NA	NA	NA	9.0	10.1	10.5	12.5	11.8	13.8

Source : Vital Statistics of India for 1961 issued by the Registrar General, India
NA—Not available


KERALA
REGISTERED DEATH RATE, 1961
MYSORE STATE
ARABIAN SEA
MADRAS STATE
MAHE
KASARAGOD
HOSDRUG
TALIPARAMBA
CANNANORE
TELLICHERRY
NORTH WYNAD
BADAGARA
SOUTH WYNAD
QUILANDY
KOZHIKODE
ERNAD
PERINTHALMANNA
TIRUR
PONNANI
OTTAPALAM
PALGHA
TALAPPILLY
CHOWGHAT
TRICHUR
CHITTUR
MUKUNDAPURAM
CRANGANORE
ALWAYE
PARUR
COCHIN
KUNNATHUNAD
MUVATTUPUZHA
DEVICOLAM
KANAYANNUR
THODUPUZHA
UDUMBANCHOLA
VAIKOM
MEENACHIL
SHERTALAI
KOTTAYAM
KANJIRAPPALLY
PEERMADE
AMBALAPUZHA
CHANGANACHERRY
KUTTANAD
THIRUVALLA
CHENGANNUR
KARTHIGAPALLY
PATHANAMTHITTA
MAVELIKKARA
KUNNATHUR
KARUNAGAPALLY
PATHANAPURAM
KOTTARAKARA
QUILON
CHIRAYINKIL
NEDUMANGAD
TRIVANDRUM
NEYYATTINKARA
MILES 20 10 0 20 40 60
KILOMETRES 20 0 20 40 60 80
STATE BOUNDARY
DISTRICT BOUNDARY
TALUK BOUNDARY
DEATH PER THOUSAND POPULATION
BELOW 5
5 to 9
10 AND ABOVE
75°
76°
77°
12°
11°
10°
9°
N
E

4.10 The registered death-rates of the remaining municipal towns show that Parur town has the highest death-rate in 1961 with 16.0. Badagara municipality has a very low rate of registration with 3.2 deaths per 1,000 population. The subjoined table gives the death-rates of municipal towns with a population of less than 30,000.

Table 4.10

DEATH-RATES IN MUNICIPAL TOWNS WITH A POPULATION OF LESS THAN 30,000, 1961

District	Town	Death-rate
1	2	3
Kozhikode	Badagara	3.2
Palghat	Chittur – Thathamangalam	10.9
Trichur	Kunnamkulam	12.0
	Irinjalakuda	5.2
Ernakulam	Parur	16.0
	Alwaye	10.8
	Perumbavoor	6.0
	Muvattupuzha	11.3
Kottayam	Palai	5.8
	Vaikom	12.0
Alleppey	Shertalai	11.5
	Thiruvalla	9.4
	Kayamkulam	5.6
	Mavelikkara	12.9
Trivandrum	Attingal	6.3
	Neyyattinkara	4.9

Death-rates by Taluks

4.11 In 1961 Palghat taluk has recorded the highest death-rate while the lowest is claimed by Mukundapuram taluk. Coming to the rural areas of the taluks of the State, Ponnani taluk tops the list in regard to death-rate. As seen from the table given hereunder Mukundapuram taluk still ranks last in regard to death-rates. The urban areas consist of only municipal towns.

Table 4.11

DEATH-RATES BY TALUKS, 1961

District	Taluk	Death-rates		
		Total	Rural	Urban
1	2	3	4	5
Cannanore	Kasaragod	10.5	10.5	...
	Hosdrug	8.5	8.5	...
	Taliparamba	9.0	9.0	...
	Cannanore	9.8	9.8	10.04
	Tellicherry	8.2	7.4	16.4
	North Wynad	8.6	8.6	...
Kozhikode	Badagara	7.7	8.4	3.2
	Quilandy	7.7	7.7	...
	Kozhikode	11.3	7.8	19.8
	Tirur	11.3	11.3	...
	Ernad	7.3	7.3	...
	South Wynad	7.4	7.4	...
Palghat	Perintalmanna	10.7	10.7	...
	Ponnani	11.9	11.9	...
	Ottappalam	11.0	11.0	...
	Palghat	12.4	11.1	15.8
	Alathur	10.7	10.7	...
	Chittur	6.8	6.4	10.9
Trichur	Talappilly	4.6	4.2	12.0
	Trichur	4.5	3.5	9.7
	Chowghat	8.4	8.4	...
	Mukundapuram	2.3	2.1	5.2
	Cranganore	4.8	4.8	...
Ernakulam	Parur	6.0	5.0	16.0
	Alwaye	8.8	3.6	10.8
	Kunnathunad	6.3	6.4	6.0
	Kanayannur	5.0	4.1	7.0
	Cochin	7.0	5.9	8.7
	Muvattupuzha	6.5	6.1	11.3
	Thodupuzha	6.3	6.3	...
Kottayam	Devicolam	7.3	7.3	...
	Udumbanchola	3.1	3.1	...
	Meenachil	6.7	6.7	5.8
	Vaikom	9.4	9.2	12.0
	Kottayam	8.0	7.4	11.8
	Changanacherry	6.6	6.7	6.1
	Kanjirappally	5.1	5.1	...
	Peermade	6.2	6.2	...
Alleppey	Sherthalai	7.8	7.5	11.5
	Ambalapuzha	5.4	5.6	5.2
	Kuttanad	5.1	5.1	...
	Thiruvalla	6.0	5.8	9.4
	Chengannur	6.1	6.1	...
	Karthigapally	7.1	7.3	5.6
	Mavelikkara	8.1	7.8	12.9
Quilon	Pathanamthitta	3.9	3.9	...
	Kunnathur	6.7	6.7	...
	Karunagapally	9.7	9.7	...
	Quilon	5.1	4.2	9.5
	Kottarakkara	4.2	4.2	...
	Pathanapuram	5.1	5.1	...
Trivandrum	Chirayinkil	4.5	4.4	6.3
	Trivandrum	7.6	3.2	13.8
	Neyyattinkara	5.6	5.7	4.9
	Nedumangad	4.7	4.7	...

Source: 1. Vital Statistics Bulletin No. 22 issued by the Director of Statistics, Kerala, pages 30-34

2. Vital Statistics of India for 1961 issued by the Registrar General, India, page 28

Deaths classified by age-groups

4.12 The table given hereunder shows the proportion of deaths under each age-group to total deaths for individual years of the decade 1951–61.

Table 4.12

PROPORTION OF DEATHS UNDER EACH AGE-GROUP TO TOTAL DEATHS, KERALA, 1951-61

Age-group	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11	12
All ages	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Less than 1	17.11	18.65	16.42	14.23	16.80	16.66	15.21	16.07	16.73	13.72	14.42
1-4	18.01	17.48	20.16	16.08	19.24	21.24	20.01	19.20	18.21	15.40	17.81
5-9	4.75	4.34	4.35	4.57	5.03	3.12	5.09	4.88	4.63	4.85	5.59
10-14	2.43	2.21	2.05	2.27	1.97	1.23	2.12	2.48	1.98	2.23	2.27
15-19	3.31	2.71	2.71	2.56	2.29	2.23	1.82	2.13	1.60	1.71	1.67
20-29	6.50	6.36	5.56	5.97	5.20	5.35	5.09	5.39	5.02	4.68	4.40
30-39	7.02	6.93	6.24	6.73	6.10	6.11	5.55	5.94	5.79	5.65	5.38
40-49	7.83	7.20	6.67	7.32	6.14	6.35	6.21	6.23	6.12	6.51	6.13
50-59	7.56	7.69	7.64	8.74	7.30	7.35	7.98	7.57	7.70	8.54	8.09
60+	25.48	26.43	28.20	31.53	29.93	30.36	30.92	30.11	32.22	36.71	34.24

A chart is given separately showing the proportion of death under each age-group.

Infant Mortality

4.13 Kerala has a computed infant mortality rate of 120 during the decade 1951–60 as against 139 for All-India. Among the State Uttar Pradesh has recorded the highest rate with 186 while Madras and Maharashtra come last with 109 each. The following table gives the computed infant mortality rate for different States.

Table 4.13

COMPUTED INFANT MORTALITY RATES 1951–60

Rank	State	Infant death-rate
1	2	3
1	Uttar Pradesh	186
2	Assam	184
3	Madhya Pradesh	175
4	Orissa	159
5	Bihar	145
6	West Bengal	120
	Mysore	120
	Kerala	120
7	Rajasthan	117
8	Andhra Pradesh	111
9	Punjab	110
	Gujarat	110
10	Maharashtra	109
	Madras	109

Source : Vital Statistics of India for 1961 issued by Registrar General, page XL

4.14 About 16 per cent of the total deaths in Kerala for the decade 1951–61 pertains to the infant death age-group of below 1 year. The infant mortality rate is calculated by relating the number of infant deaths (i. e. deaths below 1 year of age) to the total number of live-births. Infant death-rate for Kerala State, as in the case of birth and death-rates, has also shown fluctuations between different years in the decade 1951–61. But the five year averages show a declining trend. The infant deaths and infant death-rates of Kerala for the years 1951–61 are given in the following table.

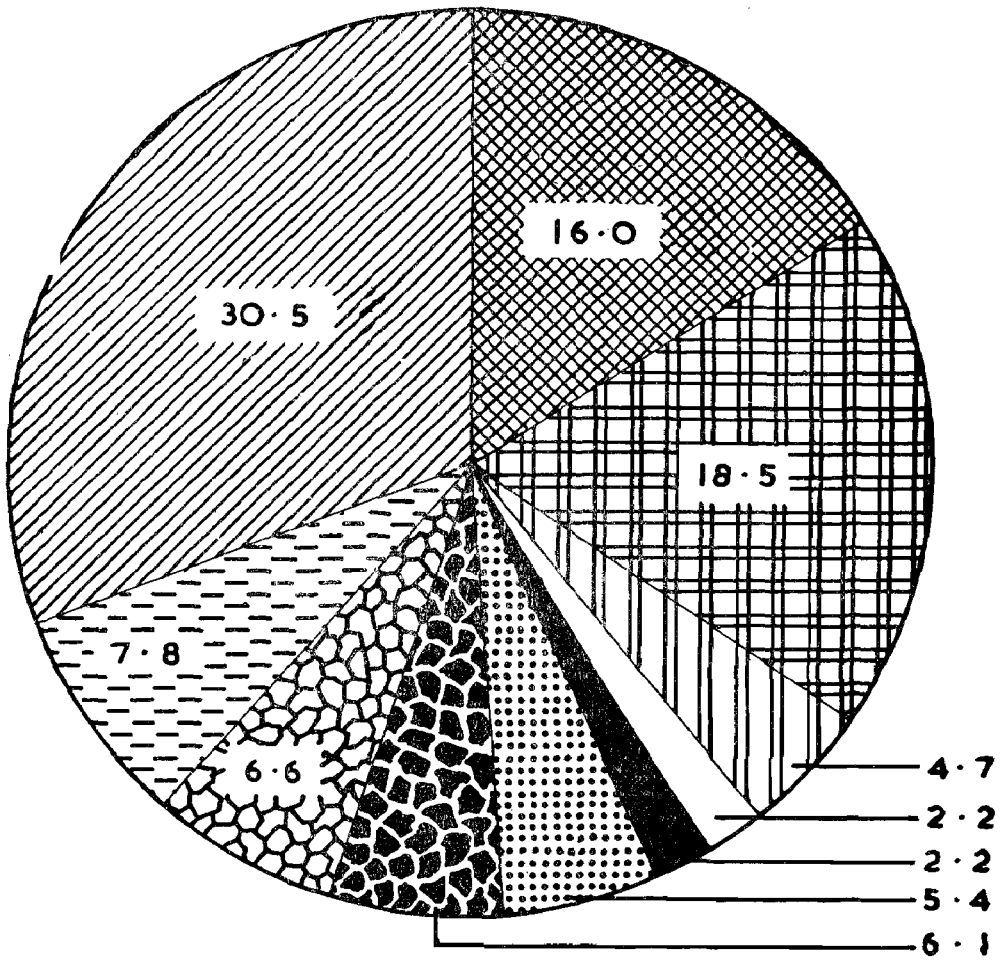
Table 4.14

INFANT DEATHS, KERALA, 1951–61

Year	Total infant deaths	Infant death-rate	5 year average
1	2	3	4
1951	19,672	54	
1952	21,409	55	
1953	21,902	62	
1954	15,549	52	55
1955	20,425	55	
1956	18,143	51	

DISTRIBUTION OF DEATHS BY AGE-GROUPS 1951-61

(PERCENTAGE)



AGE-GROUP

LESS THAN 1
1 – 4
5 – 9
10 – 14
15 – 19
20 – 29
30 – 39
40 – 49
50 – 59
60 AND ABOVE

1	2	3	4
1957	21,781	61	
1958	18,537	50	
1959	20,214	50	48
1960	14,987	40	
1961	17,804	42	

4.15 The subjoined table gives the infant deaths and infant death-rates for the districts of Kerala. The three northernmost districts viz. Cannanore, Kozhikode and Palghat have infant death-rates higher than the State average in the year 1961. Among the districts, Palghat district has the highest infant mortality rate in all the three years.

Table 4.15

INFANT DEATHS BY DISTRICTS, 1959—61

District	Infant deaths			Infant death-rates		
	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7
Cannanore	3,159	2,361	2,797	61	51	52
Kozhikode	4,240	2,694	3,561	68	47	50
Palghat	4,175	2,718	3,226	96	67	71
Trichur	1,310	953	958	46	35	32
Ernakulam	1,464	1,148	1,356	37	30	30
Kottayam	1,959	1,811	1,937	43	41	41
Alleppey	1,311	1,009	1,216	30	26	28
Quilon	1,260	1,137	1,429	27	26	29
Trivandrum	1,336	1,156	1,324	32	29	31

Infant deaths by rural-urban areas

4.16 The infant mortality rates are higher in the rural areas when compared to urban areas. The hospital facilities available in urban areas have considerably reduced the infant mortality. The subjoined table gives the infant mortality rates for the rural and urban areas of the State for the years 1958 to 1961 supports this contention.

Table 4.16

INFANT MORTALITY RATE BY RURAL-URBAN AREAS, KERALA, 1958–61

Year	Rural	Urban
1	2	3
1958	50	49
1959	51	43
1960	41	32
1961	43	34

4.17 Due to the effect of various territorial changes the district-wise figures are not available for the period 1951 to 1958. Hence the district-wise rural-urban figures of the infant mortality rates are furnished only for the years 1959-61. The infant death-rates for the rural and urban areas of the districts are given in the following table.

Table 4.17

INFANT DEATH-RATES BY DISTRICTS, 1959–61

District	Rural			Urban		
	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7
Cannanore	61	51	52	67	49	53
Kozhikode	63	43	46	95	73	73
Palghat	96	68	72	88	56	60
Trichur	48	40	36	31	12	18
Ernakulam	36	32	34	38	24	23
Kottayam	45	44	44	23	16	18
Alleppey	30	26	28	27	25	26
Quilon	28	28	32	17	11	13
Trivandrum	34	31	34	27	25	27

4.18 The fourteenth round of the National Sample Survey conducted in the rural areas of the State during the period July 1958 to July 1959 gives an infant mortality rate of 61 for the rural areas of Kerala as against a registered rate of only 50. The following table gives the infant death-rates by different sub-rounds of the National Sample Survey.

Table 4.18

INFANT DEATH-RATES IN THE RURAL AREAS OF KERALA, 1958–59
(NSS 1958–59)

Sub-round	Infant death-rates		
	Combined sample	Sample 1	Sample 2
1	2	3	4
All sub-rounds	61	68	55
1	92	63	114
2	80	98	66
3	43	63	31
4	47	54	35
5	42	65	26
6	65	70	57

4.19 The urban areas in the above table include only municipal towns. The infant

mortality rates for 1961 of each municipal town classified according to the population size of these towns are given below. The highest infant mortality rate is recorded in Chittur–Thathamangalam town with 103.

Table 4.19

INFANT MORTALITY RATES BY TOWNS, 1961

Municipal town	Infant Mortality rate
1	2
Towns with a population of 1 lakh and over	
Trivandrum	29
Calicut	78
Alleppey	32
Ernakulam	20
Towns with a population of 50,000 – 99,999	
Quilon	13
Mattancherry	18
Palghat	52
Trichur	13
Kottayam	14
Towns with a population of 20,000—49,999	
Cannanore	62
Tellicherry	48
Kayamkulam	22
Badagara	22
Changanacherry	24
Fort Cochin	43
Shertalai	30
Chittur-Thathamangalam	103
Thiruvalla	17
Muvattupuzha	22
Irinjalakuda	26
Attingal	20
Alwaye	8
Parur	34
Neyyattinkara	7
Towns with a population of 10,000—19,999	
Mavelikkara	20
Vaikom	17
Kunnamkulam	36
Perumbavoor	28
Palai	19

Infant deaths by taluks

4.20 In the total as well as rural areas of the State Alathur taluk was found to have the highest infant mortality rate. The taluks in the erstwhile Malabar district have recorded higher rates when compared to the Travancore-Cochin region. The following table gives the infant mortality rates by taluks for 1961.

Table 4.20

INFANT MORTALITY RATES BY TALUKS, 1961

District	Taluk	Total	Rural	Urban
1	2	3	4	5
Cannanore	Kasaragod	55	55	...
	Hosdrug	51	51	...
	Taliparamba	55	55	...
	Cannanore	57	56	62
	Tellicherry	41	39	48
	North Wynad	72	72	...
Kozhikode	Badagara	36	38	22
	Quilandy	41	41	...
	Kozhikode	58	40	78
	Tirur	56	56	...
	Ernad	41	41	...
	South Wynad	63	63	...
Palghat	Perintalmanna	65	65	...
	Ponnani	71	71	...
	Ottappalam	60	60	...
	Palghat	76	92	52
	Alathur	91	91	...
	Chittur	68	63	103
Trichur	Talappilly	28	27	36
	Trichur	27	38	13
	Chowghat	44	44	...
	Cranganore	39	39	...
	Mukundapuram	29	29	26
Ernakulam	Parur	31	30	34
	Alwaye	26	32	8
	Kunnathunad	37	38	28
	Kanayannur	24	27	20
	Cochin	33	48	24
	Muvattupuzha	30	32	22
	Thodupuzha	31	31	...
Kottayam	Devicolam	78	78	...
	Udumbanchola	61	61	...
	Meenachil	36	37	19
	Vaikom	45	49	17
	Kottayam	34	38	14
	Changanacherry	29	31	24
	Kanjirappally	32	32	...
	Peermade	62	62	...
Alleppey	Shertalai	34	34	30
	Ambalapuzha	32	32	32
	Kuttanad	20	20	...
	Thiruvalla	18	19	17
	Chengannur	21	21	...
	Karthigapally	26	27	22
	Mavelikkara	38	41	20

1	2	3	4	5
Quilon	Pathanamthitta	24	24	...
	Kunnathur	36	36	...
	Karunagapally	27	27	...
	Quilon	24	30	13
	Kottarakkara	29	29	...
	Pathanapuram	42	42	...
Trivandrum	Chirayinkil	31	33	20
	Trivandrum	30	33	29
	Neyyattinkara	37	39	7
	Nedumangad	36	36	...

Source : 1 Vital Statistics Bulletin No. 22 issued by the Director of Statistics, Kerala, pages 30-34
2 Vital Statistics of India for 1961 issued by Registrar General, India, page 28

Infant deaths by age-groups

4.21 More than 46 per cent of infant deaths occur within a month of their birth, 29 per cent after one month of birth but before attaining six months and the rest of about 25 per cent due off after six months of birth but before completing one year of age. More male children die before they cross one month of their life than female children. The subjoined table shows the distribution of infant death by age-groups.

Table 4.21

INFANT DEATHS BY AGE-GROUPS AND SEX IN KERALA, 1961

Age-group	No. of infant deaths			Percentage distribution		
	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7
Total	**17,804**	**9,628**	**8,176**	**100.0**	**100.0**	**100.0**
(i) Below 1 week	4,641	2,622	2,019	26.1	27.2	24.7
(ii) 1 week but less than 1 month	3,618	2,021	1,597	20.3	21.0	19.5
(iii) 1 month but below 6 months	5,157	2,735	2,422	29.0	28.4	29.6
(iv) 6 months and above but below 1 year	4,388	2,250	2,138	24.6	23.4	26.2

Deaths by causes

4.22 So far as this report is concerned the cause of death has been broadly classified into nine groups. They are:

1 Cholera
2 Small-pox
3 Plague
4 Fevers
5 Dysentery & Diarrhoea
6 Respiratory diseases
7 Injuries and accidents
8 Maternal deaths
9 All other causes

Except in regard to cholera, small-pox and plague the reliability of the cause of death given at the time of registration is subject to question. There is a general tendency to record the cause of death as 'old age'. Such cases are grouped in the category of 'all other causes' at the time of tabulation. This has resulted for the high percentage of deaths under 'all other causes'. The causes of death statistics are furnished in the following table.

Table 4.22

DEATHS AND DEATH-RATES BY CAUSES, KERALA, 1951-61

Causes	Average No. of deaths 1951-61	Average death-rate 1951-61	Proportion of deaths in col. 2 to total deaths
1	2	3	4
Total	**119,545**	**7.9**	**100.0**
Cholera	80	N	0.1
Small-pox	808	0.1	0.7
Plague	...	...	...
Fevers	16,204	1.1	13.5
Dysentery & Diarrhoea	7,331	0.5	6.1
Respiratory diseases	12,763	0.8	10.7
Injuries & accidents	2,410	0.1	2.0
Maternal deaths	1,060	0.1	0.9
All other causes	78,889	5.2	66.0

N—Negligible

The chart given separately gives the percentage distribution of deaths by causes.

4.23 The table given hereunder shows the distribution of deaths by causes for each year for the period 1951-61.

Table 4.23

DISTRIBUTION OF DEATHS BY CAUSE OF DEATH, KERALA, 1951-61

Cause of death	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11	12
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Cholera	0.2	N (0.04)	0.3	0.1	N (0.002)	N (0.001)	...	N (0.02)	...	...	...
Small-pox	0.8	0.5	0.5	0.9	0.2	0.3	0.4	0.9	2.0	0.5	0.4
Plague	...	...	...	...	...	...	...	...	...	...	...
Fevers	19.4	16.7	15.7	14.7	15.8	12.1	11.2	13.3	10.9	9.8	10.0
Dysentery & Diarrhoea	5.8	5.5	8.1	5.1	5.5	5.0	6.8	6.1	6.3	5.7	6.9
Respiratory diseases	11.6	11.5	9.6	10.4	9.8	11.1	9.9	10.0	10.9	12.1	11.0
Injuries & accidents	1.9	1.9	1.8	2.1	1.4	2.1	1.7	2.1	2.2	2.7	2.4
Maternal deaths	1.0	1.1	0.9	0.9	0.9	0.9	0.7	0.9	0.9	0.7	0.8
All other causes	59.3	62.8	63.1	65.8	66.4	68.5	69.3	66.7	66.8	68.5	68.5

N – Negligible

Cholera

4.24 Cholera epidemic was prevalent in every decade but with variations in its intensity. During the period 1951-61 there were 883 deaths due to cholera. The State was free from this epidemic during the last three years. The attack was most virulant in 1953 which took a toll of 477 lives. The following table presents the total number of deaths and the percentage of deaths to total estimated population for the decade 1951-61.

Table 4.24

DEATHS DUE TO CHOLERA, KERALA 1951-61

Year	Number of deaths due to cholera	Percentage of deaths to total population
1	2	3
1951	226	0.01
1952	55	N
1953	477	0.03
1954	95	0.01
1955	2	N
1956	1	N
1957	...	...
1958	27	N
1959	...	...
1960	...	...
1961	...	...

N—Negligible

Small-pox

4.25 Its virulent attacks still persist in the masses particularly where effective preventive measures are not taken. During the decade under review deaths have been recorded in all the years though the percentage of deaths in 1959 is considerably high.

Table 4.25

DEATHS DUE TO SMALL-POX, KERALA, 1951-61

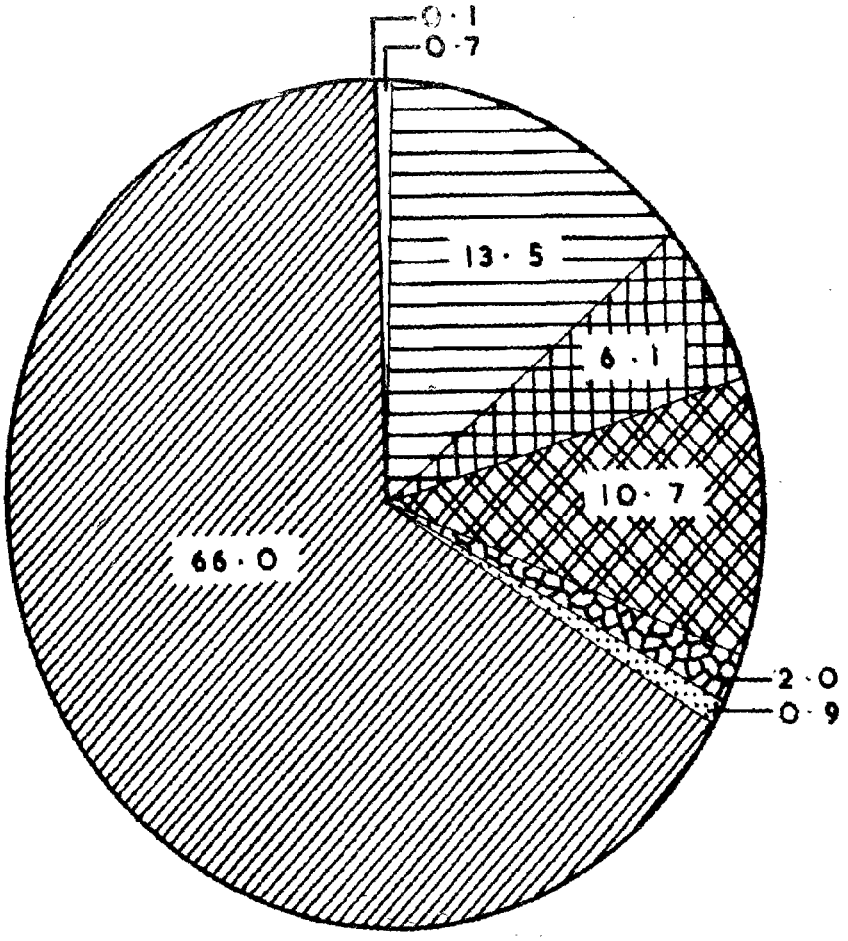
Year	Total deaths due to small-pox	Percentage of deaths to total population
1	2	3
1951	947	0.07
1952	550	0.04
1953	657	0.05
1954	985	0.07
1955	287	0.02
1956	329	0.02
1957	601	0.04
1958	1,082	0.07
1959	2,389	0.15
1960	587	0.04
1961	469	0.03

Distribution of deaths by cause of death and by districts

4.26 The table presented hereunder gives the distribution of cause of death by each district of Kerala for the last three years.

DISTRIBUTION OF DEATHS BY CAUSES 1951 – 61

(PERCENTAGE)



INDEX

CHOLERA

SMALL-POX

FEVERS

DYSENTERY & DIARRHOEA

RESPIRATORY DISEASES

INJURIES & ACCIDENTS

MATERNAL DEATHS

ALL OTHER CAUSES

Table 4.26

PERCENTAGE DISTRIBUTION OF CAUSE OF DEATH BY DISTRICTS, 1959–61

Cause of death	Year	State	Canna-nore	Kozhi-kode	Palghat	Trichur	Ernaku-lam	Kotta-yam	Allep-pey	Quilon	Trivan-drum
1	2	3	4	5	6	7	8	9	10	11	12
Cholera	1959	...	...	...	...	...	...	...	...	...	...
	1960	...	...	...	...	...	...	...	...	...	...
	1961	...	...	...	...	...	...	...	...	...	...
Small-pox	1959	100.0	8.5	14.6	31.0	26.2	11.2	2.7	2.7	2.3	0.8
	1960	100.0	4.3	48.0	33.4	10.7	...	0.3	1.4	1.7	0.2
	1961	100.0	11.7	46.0	31.5	2.5	0.6	1.1	1.1	4.9	0.6
Fevers including Typhoid	1959	100.0	26.6	23.9	14.3	5.0	8.8	6.9	5.4	3.4	5.7
	1960	100.0	27.3	20.8	13.1	6.8	8.5	7.6	6.4	3.5	6.0
	1961	100.0	23.1	20.4	13.5	6.6	10.6	7.9	7.0	5.0	5.9
Dysentry & Diarrhoea	1959	100.0	9.3	21.8	18.9	3.8	8.9	9.6	9.1	8.0	10.6
	1960	100.0	8.6	22.1	16.6	4.6	10.0	8.0	11.2	10.0	8.9
	1961	100.0	6.9	20.3	14.6	3.7	10.3	9.6	13.4	12.0	9.2
Respiratory diseases	1959	100.0	16.5	14.3	11.2	5.1	12.7	8.2	9.5	10.1	12.4
	1960	100.0	16.0	14.7	10.9	6.4	10.5	9.6	9.9	10.4	11.6
	1961	100.0	15.4	16.1	10.8	6.0	8.1	10.0	9.9	11.6	12.1
Injuries & accidents	1959	100.0	12.7	18.5	15.8	5.4	9.6	11.0	10.6	8.4	8.0
	1960	100.0	14.3	16.9	15.3	8.3	9.8	11.0	9.4	8.7	6.3
	1961	100.0	12.4	18.4	14.2	8.1	11.2	9.7	9.9	8.7	7.4
Maternal deaths	1959	100.0	13.8	22.2	17.2	3.4	5.6	8.6	16.7	6.5	6.0
	1960	100.0	13.7	23.1	12.6	5.3	9.0	9.5	8.0	11.1	7.7
	1961	100.0	13.0	24.8	13.6	5.3	5.6	9.0	9.6	11.6	7.5
All other causes	1959	100.0	12.3	19.2	18.4	7.2	7.5	9.6	10.0	7.7	8.1
	1960	100.0	12.4	19.0	15.6	6.6	7.8	10.1	11.0	8.9	8.6
	1961	100.0	12.0	20.0	16.5	6.3	8.6	10.0	9.9	8.6	8.1

4.27 The causes of death statistics during the period 1959–61 have been further analysed by districts. In all the districts of Kerala majority of diseases has fallen under the category of 'all other causes.' The reason for this abnormal increases has already been explained. The subjoined table gives the district-wise cause of death statistics for the years 1959 to 1961.

Table 4.27

PERCENTAGE OF DEATHS BY CAUSE IN EACH DISTRICT, 1959–61

Year	State/District	Total	Percentage of deaths by causes							
			Cholera	Small pox	Fevers including typhoid	Dysentry and diarrhoea	Respiratory diseases	Maternal deaths	Accidents	All other causes
1	2	3	4	5	6	7	8	9	10	11
1959	**Kerala State**	**100.0**	..	**2.0**	**10.9**	**6.3**	**10.9**	**0.8**	**2.2**	**66.9**
	Cannanore	100.0	...	1.2	20.5	4.2	12.7	0.9	2.0	58.5
	Kozhikode	100.0	...	1.5	13.5	7.1	8.1	1.0	2.1	66.7
	Palghat	100.0	...	3.5	9.0	6.8	7.1	0.9	2.0	70.7
	Trichur	100.0	...	7.6	8.0	3.4	8.1	0.5	1.7	70.7
	Ernakulam	100.0	...	2.6	11.4	6.7	16.6	0.6	2.5	59.6
	Kottayam	100.0	...	0.6	8.3	6.7	9.9	0.9	2.6	71.0
	Alleppey	100.0	...	0.6	6.3	6.2	11.2	0.8	2.5	72.4
	Quilon	100.0	...	0.6	5.0	6.7	14.9	0.8	2.5	69.5
	Trivandrum	100.0	...	0.2	7.5	7.9	16.3	0.7	2.1	65.3

Year	State/District	Total	Percentage of deaths by causes							
			Cholera	Small pox	Fevers including typhoid	Dysentry and diarrhoea	Respiratory diseases	Maternal deaths	Accidents	All other causes
1	2	3	4	5	6	7	8	9	10	11
1960	**Kerala State**	**100.0**	..	**0.5**	**9.8**	**5.7**	**12.1**	**0.7**	**2.7**	**68.5**
	Cannanore	100.0	...	0.2	19.0	3.5	13.7	0.7	2.7	60.2
	Kozhikode	100.0	...	1.4	10.8	6.6	9.3	0.9	2.4	68.6
	Palghat	100.0	...	1.2	8.6	6.3	8.8	0.6	2.8	71.7
	Trichur	100.0	...	0.9	10.1	4.0	11.8	0.6	3.4	69.2
	Ernakulam	100.0	...	...	9.9	6.8	15.2	0.8	3.2	64.1
	Kottayam	100.0	...	N	7.7	4.8	12.0	0.7	3.1	71.7
	Alleppey	100.0	...	0.1	6.0	6.1	11.6	0.6	2.5	73.1
	Quilon	100.0	...	0.1	4.0	6.6	14.5	0.9	2.8	71.1
	Trivandrum	100.0	...	N	6.8	5.9	16.3	0.7	2.0	68.3
1961	**Kerala State**	**100.0**	..	**0.4**	**10.0**	**6.9**	**11.0**	**2.4**	**0.8**	**68.5**
	Cannanore	100.0	...	0.4	18.0	3.6	12.5	2.2	0.8	62.5
	Kozhikode	100.0	...	0.9	10.6	7.1	8.8	2.2	1.0	69.4
	Palghat	100.0	...	0.8	9.0	6.5	7.6	2.1	0.7	73.3
	Trichur	100.0	...	0.2	10.9	4.2	10.4	3.1	0.7	70.5
	Ernakulam	100.0	...	N	12.3	8.0	9.8	2.9	0.5	66.5
	Kottayam	100.0	...	N	8.4	6.8	11.0	2.3	0.8	70.7
	Alleppey	100.0	...	N	7.4	9.4	10.8	2.4	0.8	69.2
	Quilon	100.0	...	0.2	5.9	9.4	14.1	2.3	1.1	67.0
	Trivandrum	100.0	...	N	7.2	7.6	15.6	2.1	0.8	66.7

N—Negligible

CHAPTER V

SCHEMES FOR IMPROVEMENT OF VITAL STATISTICS

Introduction

As stated in earlier chapters the registration is very poor in Kerala State. During the past decades many renowned committees had recommended various schemes for the improvement of registration in the country. The Famine Commission's (1880) recommendation was the first of its kind during the last century. It stressed the need for an effective system of registration of vital events. The important committees that had recommended similar measures of improvement are the Central Advisory Board of Health (1939), the Health Survey and Development Committee (popularly known as Bhore Committee, 1946), the Vital Statistics Committee (1949), the WHO Fales Report (1952) and the Committee to study and report on patterns of the Statistical Units of Health Departments (1960). In April 1961 the Registrar General, India convened a conference of the representatives of all States who were engaged in the registration and processing of vital statistics data. The conference recommended a series of measures for the improvement of Vital Statistics in India. Some of the recommendations are given below:

(i) The Govt. of India should pass a central law which should deal with definitions of various terms used in the system of registration, provision for compulsory registration of vital events, permissible period of registration and issue of registration certificates, maintenance of records and statistics, powers of registrars etc.

(ii) The conference chalked out programmes on uniform tabulation, centralised compilation and timely publication of vital statistics figures.

(iii) Conference recommended various schemes for the improvement of registration.

(iv) Various other points like minimum tabulation programme for all States, model staffing pattern, preservation and maintenance of records, educational programmes and imparting training to registrars and persons concerned with registration of vital events etc.

5.2 The Planning Commission while formulating the Third Five Year Plan considered these recommendations on a priority basis and approved certain schemes. The schemes may be broadly divided into short-term and long-term schemes. Short-term schemes are aimed at obtaining quick and reliable estimates of births and deaths on sample basis while the long-term schemes are designed with the aim of re-vitalising the existing registration machinery. Following are the schemes adopted for the improvement of registration.

(i) **Short-term schemes**

1. Sample Registration in selected areas to obtain reliable estimates of natality and mortality in the country.
2. Model Registration in selected areas under Primary Health Centres to give reliable cause of death data.

(ii) **Long-term schemes**

1. Strengthening of Vital Statistics Organisation at State Headquarters
2. Strengthening of District Registration Offices
3. Setting up of Mechanical Tabulation Units at State Headquarters

4. Registration, promotion and methods of research and training

The succeeding paragraphs give the details of the abovementioned schemes.

Sample registration

5.3 As mentioned above the object of this short-term scheme is to obtain quick estimates of annual birth and death-rates for each State and the country as a whole. The scheme has both the advantages of continuous registration and sample survey. The survey is conducted in randomly selected rural and urban units in each State. In rural areas the enumeration unit is selected after considering the natural divisions of the States also. For the purpose of the survey the rural areas of Kerala State is grouped into three natural regions Highland, Midland and Lowland. Portions of revenue villages viz., kara/desom/muri with a population of not exceeding 2,000 are considered as units of selection in these areas. If the population of such a unit is above 2,000 a segment of such a unit is selected for this survey. The sample size for the rural areas, is 150 such units. In each natural division the karas/muris/desoms are grouped into four strata according to population size. The population sizes are less than 500, 500-999, 1000–1999 and 2000 and above. The sample of 150 units is distributed among the strata, the scheme of allocation in each strata being proportionate to its population. The karas/muris/desoms are selected from each group with equal probability. In the urban areas the enumeration blocks of 1961 are selected for the study. A part-time enumerator is appointed for each unit. A primary school teacher is preferred to work as the part-time enumerator under the scheme considering the respect and greater cooperation he commands from the community. The enumerator is required to record all events whenever they have occurred. The enumerators have to select informants who will help him to record the events correctly and in time. They are voluntary workers who are employed as midwives, barbers, washermen etc. The enumerator is guided by a whole time officer of the department in charge of Sample Registration. At the completion of each six monthly period a half-yearly survey is conducted. The Supervisor has to conduct half-yearly survey independently. The results of the survey have to be compared with the enumerators' birth and death records and the discrepancies noted. The discrepancies are verified by a third person or jointly by the supervisor and enumerator. This will enable to estimate the actual number of births occurred during the last six months. Sample Registration scheme was done on a pilot scale in Kerala in 1964–65. 20 rural units and 5 towns were selected for the study. The full-scale sample registration in the rural areas was launched in the State in 1965.

Model registration in rural health centres

5.4 The scheme is envisaged to collect data on cause of death through medical personnel employed in Primary Health Centres. Causes of death are classified under the 8 major heads viz., (i) violence or injury (ii) child-birth or complicated pregnancy (iii) diarrhoea (iv) cough (v) swellings (vi) fevers (vii) other causes of infant deaths and (viii) other causes. These major causes are sub-classified into a number of minor causes The field investigation is done by a vaccinator, sanitary inspector or midwife etc. The Primary Health Centre gives the necessary training.

Strengthening of organisation set-up in State and District Headquarters

5.5 In each State Headquarters a senior officer is put in charge of vital statistics with a good technical staff. Technical staff is also provided in each district headquarters to assist the District Statistical Officer. In each municipality a whole time office staff is provided for supervision and compilation of vital statistics data.

Mechanical tabulation unit

5.6 In each State headquarters a mechanical tabulation unit is established for processing the data. This will minimise transcription and other errors.

Registration, promotion and methods of research

5.7 In addition to the above schemes a scheme has been included in the Registrar General's Office for studying various aspects of registration, promotion and methods of research. Following are the salient features of this scheme :

(i) Studies relating to the registration methods in various states
(ii) Studies of difference in items required to be registered, definitions etc.
(iii) Studies relating to deficiencies in collection of registration data
(iv) Standardization of demographic investigation techniques after field test of demographic survey methods
(v) Evaluation of methods of collection of data and
(vi) Preparation of instructions and manuals for guidance to States.

Training

5.8 The Registrar General, India has chalked out detailed programmes for training in vital statistics for the workers of various levels in the States. For purpose of training a Training Officer is appointed in each State headquarters with State-wide jurisdictions. He has to give training to the various officers connected with the registration of vital statistics.

Publicity

5.9 A 35 mm. film entitled "Vital Records" is being shown in cinema houses in the municipal towns. Most of the municipalities have also prepared slides and these are being exhibited through cinema houses. Pamphlets containing the importance and usefulness of vital information are printed and distributed to the public. The field staff of the Bureau of Economics and Statistics attend most of the meetings in the Blocks, Panchayats and Schools and speak on the importance of vital registration.

Sample census and survey of under-registration

5.10 In addition to the above-mentioned schemes the Sample Census of population, births and deaths conducted periodically gives very good estimates of birth and death-rates of the country. The survey of under-registration conducted in sample blocks selected for Sample Census also helps to study the extent of under-registration.

All these schemes will help to improve the system of vital registration in India considerably.

APPEN-

CHANGES IN JURISDICTION DURING THE PERIOD 1951-61 AND

District / Taluk	Area in 1961*		1961 population
	Sq. miles	Sq. km.	
1	2	3	4
[1]**Cannanore District**	**2,191.3**	**5,675.5**	**1,780,294**
[2]Kasaragod taluk	376.3	974.6	271,015
Hosdrug ,,	382.3	990.2	241,131
Taliparamba ,,	514.5	1,332.5	310,723
Cannanore ,,	164.7	426.6	391,636
Tellicherry ,,	465.2	1,204.9	475,589
North Wynad ,,	288.3	746.7	90,200
[3]**Kozhikode District**	**2,570.2**	**6,656.8**	**2,617,189**
Badagara taluk	212.3	549.9	319,913
Quilandy ,,	294.5	762.7	366,343
Kozhikode ,,	379.1	981.9	660,372
Tirur ,,	278.4	721.1	561,212
Ernad ,,	873.3	2,261.8	524,294
South Wynad ,,	532.6	1,379.4	185,055
[4]**Palghat District**	**1,979.6**	**5,127.2**	**1,776,566**
Perinthalmanna taluk	620.9	1,608.1	339,108
[5]Ponnani ,,	162.0	419.6	302,910
Ottappalam ,,	252.1	653.0	324,563
[6]Palghat ,,	277.4	718.5	296,217
Alathur ,,	220.9	572.1	241,496
[7]Chittur ,,	446.3	1,155.9	272,272
[8]**Trichur District**	**1,137.0**	**2,944.8**	**1,639,862**

* Area figures under columns 2, 3, 5 and 6 relate to the area figures supplied by the State Survey Department.

DIX

THE POPULATION INVOLVED IN THOSE CHANGES

Area in 1951*		1951 population according to jurisdiction prevailing in 1951	Population in 1951 ajdusted to jurisdiction of 1961	Net increase or decrease between columns 7 and 8
Sq. miles	Sq. km.			
5	6	7	8	9
(+ 2,191.3)	(+ 5,675.5)	(+ 1,375,081)	1,375,081	+ 1,375,081
758.6	1,964.8	411,031	224,015	— 187,016
(— 382.3)	(— 990.2)	(— 187,016)		
(+ 382.3)	(+ 990.2)	(+ 187,016)	187,016	+ 187,016
(+ 514.5)	(+ 1,332.5)	(+ 211,061)	211,061	+ 211,061
(+ 164.7)	(+ 426.6)	(+ 323,829)	323,829	+ 323,829
465.2	1,204.9	369,580	369,580	...
(+ 288.3)	(+ 746.7)	(+ 59,580)	59,580	+ 59,580
(+ 2,570.2)	(+ 6,656.8)	(+ 2,065,284)	2,065,284	+ 2,065,284
(+ 212.3)	(+ 549.9)	(+ 262,208)	262,208	+ 262,208
(+ 294.5)	(+ 762.7)	(+ 291,883)	291,883	+ 291,883
379.1	981.9	516,372	516,372	...
(+ 278.4)	(+ 721.1)	(+ 480,550)	480,550	+ 480,550
987.3	2,557.1	614,283	404,571	— 209,712
(— 114.0)	(— 295.3)	(— 209,712)		
(+ 532.6)	(+ 1,379.4)	(+ 109,700)	109,700	+ 109,700
(+ 1,979.6)	(+ 5,127.2)	(+ 1,565,167)	1,565,167	+ 1,565,167
(+ 620.9)	(+ 1,608.1)	(+ 281,952)	281,952	+ 281,952
425.6	1,102.3	793,805	261,971	— 531,834
(— 263.6)	(— 682.7)	(— 531,834)		
(+ 252.1)	(+ 653.0)	(+ 291,505)	291,505	+ 291,505
590.3	1,528.9	585,651	273,489	— 312,162
(— 312.9)	(— 810.4)	(— 312,162)		
(+ 220.9)	(+ 572.1)	(+ 213,942)	213,942	+ 213,942
354.3	917.6	144,088	242,308	+ 98,220
(+ 92.0)	(+ 238.3)	(+ 98,200)		
2,021.4	5,235.3	2,315,640	1,362,665	— 952,975
(— 884.4)	(— 2,290.5)			

APPEN-

CHANGES IN JURISDICTION DURING THE PERIOD 1951–61 AND

District/Taluk	Area in 1961* Sq. miles	Sq. km.	1961 population
1	2	3	4
Talappilly taluk	256.0	663.0	319,588
Trichur ,,	245.5	635.9	461,915
[9]Chowghat ,,	99.2	256.9	301,109
[10]Cranganore ,,	28.2	73.0	90,293
[11]Mukundapuram ,,	508.1	1,316.0	466,957
[12]Ernakulam District	**1,289.5**	**3,339.8**	**1,859,913**
[13]Parur taluk	74.0	191.7	221,183
Alwaye ,,	126.0	326.3	226,545
[14]Kunnathunad ,,	261.7	677.8	229,282
Kanayannur ,,	124.6	322.7	379,951
Cochin ,,	54.4	140.9	313,977
[15]Muvattupuzha ,,	254.6	659.4	301,623
[16]Thodupuzha ,,	394.2	1,021.0	187,352
[17]Kottayam District	**2,455.6**	**6,360.0**	**1,732,880**
[18]Devicolam taluk	685.0	1,774.2	123,155
Udumbanchola ,,	413.7	1,071.5	155,584
Meenachil ,,	279.0	722.6	309,830
[19]Vaikom ,,	127.7	330.7	215,420
[20]Kottayam ,,	208.4	539.8	422,039
[21]Changanacherry ,,	101.2	262.1	224,431
Kanjirappally ,,	135.6	351.2	148,786
[22]Peermade ,,	505.0	1,307.9	133,635
[23]Alleppey District	**708.1**	**1,834.0**	**1,811,252**
[24]Shertalai taluk	123.7	320.4	311,527
[25]Ambalapuzha ,,	69.0	178.7	270,037
Kuttanad ,,	102.7	266.0	169,219
[26]Thiruvalla ,,	132.9	344.2	305,625

DIX

THE POPULATION INVOLVED IN THOSE CHANGES

Area in 1951*		1951 population according to jurisdiction prevailing in 1951	Population in 1951 adjusted to jurisdiction of 1961	Net increase or decrease between columns 7 and 8
Sq. miles	Sq. km.			
5	6	7	8	9
256.0	663.0	276,262	276,262	...
245.5	635.9	375,741	375,741	...
...	...	...	260,996	+ 260,996
(+ 99.2)	(+ 256.9)	(+ 260,996)		
17.5	45.3	54,111	74,556	+ 20,445
(+ 10.7)	(+ 27.7)	(+ 20,445)		
510.1	1,321.2	384,935	375,110	— 9,825
(— 2 0)	(— 5.2)	(— 9,825)		
..	..	..	**1,530,143**	+ **1,530,143**
(+ **1,289.5**)	(+ **3,339.8**)	(+ **1,530,143**)		
111.8	289.6	243,112	186,467	— 56,645
(— 37.8)	(— 97.9)	(— 56,645)		
...	...	...	174,458	+ 174,458
(+ 126.0)	(+ 326.3)	(+ 174,458)		
365.8	947.1	321,222	182,908	— 138,314
(— 104.1)	(— 269.3)	(— 138,314)		
...	...	...	312,710	+ 312,710
(+ 124.6)	(+ 322.7)	(+ 312,710)		
...	...	...	260,869	+ 260,869
(+ 54.4)	(+ 140.9)	(+ 260,869)		
569.2	1,474.2	259,885	252,869	— 7,016
(— 314.6)	(— 814.8)	(— 7,016)		
394.2	1,021.0	159,862	159,862	...
2,984.1	**7,728.9**	**1,783,771**	**1,327,668**	— **456,103**
(— **528.5**)	(— **1,368.9**)	(— **456,103**)		
667.8	1,729.6	86,185	83,002	— 3,183
(+ 17.2)	(+ 44.6)	(— 3,183)		
..	..	...	20,056	+ 20,056
(+ 413,7)	(+ 1,071.5)	(+ 20,056)		
279.0	722.6	279,087	279,087	...
137.3	355.6	187,425	182,837	— 14,588
(— 9.6)	(— 24.9)	(— 14,588)		
212.8	551.2	343,584	353,590	+ 10,006
(— 4.4)	(— 18.4)	(+ 10,006)		
274.9	712 0	361,454	206,707	— 154,747
(— 173.7)	(— 449.9)	(— 154,747)		
...	...	...	115,957	+ 115,957
(+ 135.6)	+ 351.2)	(115,957)		
448.9	1,162.7	96,289	26,432	— 69,857
(+ 56.1)	(+ 145.2)	(— 69,857)		
..	..	..	**1,521,303**	+ **1,521,303**
(+ **708.1**)	(+ **1,834.0**)	(+ **1,521,303**)		
123 7	320.2	254,774	254,774	...
(+ N)	(+ 0.2)			
128.4	332.4	326,202	220,954	— 105,248
(— 59.4)	(— 153.7)	(— 105,248)		
...	...	...	135,887	+ 135,887
(+ 102.7)	(+ 266.0)	(+ 135,887)		
211.4	547.4	452,464	273,030	— 179,434
(— 78.5)	(— 203.2)	(— 179,434)		

APPEN-

CHANGES IN JURISDICTION DURING THE PERIOD 1951–61 AND

District / Taluk	Area in 1961* Sq. miles	Sq. km.	1961 population
1	2	3	4
Chengannur Taluk	77.7	201.2	198,846
[27]Karthigapally ,,	90.6	234.7	284,397
[28]Mavelikkara ,,	111.5	288.8	271,601
[29]**Quilon District**	**1,827.3**	**4,732.7**	**1,941,228**
[30]Pathanamthitta Taluk	762.8	1,975.6	333,310
Kunnathur ,,	150.6	390.1	238,043
[31]Karunagapally ,,	77.9	201.8	265,187
Quilon ,,	146.8	380.2	525,590
Kottarakkara ,,	212.9	551.4	331,361
[32]Pathanapuram ,,	476.3	1,233.6	247,737
[33]**Trivandrum District**	**844.0**	**2,185.9**	**1,744,531**
Chirayinkil Taluk	147.0	380.7	370,262
[34]Trivandrum ,,	120.1	311.0	572,412
[35]Neyyattinkara ,,	219.1	567.5	457,132
[36]Nedumangad ,,	357.8	926.7	344,725

1 In 1951 there was no Cannanore district. The taluks or portion of taluks which now form part of Cannanore district were part of Madras State. At the time of reorganisation of States a new Malabar district was formed consisting of Malabar district excluding Laccadive and Minicoy Islands and Kasaragod taluk of South Kanara district. In exercise of the powers conferred by the Madras District Limits Act, 1865 the Government of Kerala with effect from 1st January 1957 had altered the jurisdiction of Malabar district and formed three new districts viz, Cannanore, Kozhikode and Palghat comprising the Malabar district of States Reorganisation Act 1956 excluding Cochin and newly formed Chowghat taluks and inclusive of Chittur taluk of Trichur district. On 1st January 1957 South Wynad taluk was part of Cannanore district. With effect from 15-3-1957 South Wynad taluk was trasferred to Kozhikode district. The Kottayam taluk of 1951 was renamed as 'Tellicherry' taluk on 1st July 1958.

2 Kasaragod taluk was part of South Kanara district of Madras State till the formation of Kerala State. This taluk was bifurcated into Kasaragod and Hosdurg taluks on 1-1-1957.

3 In 1951 there was no Kozhikode district. The taluks or the portion of taluks which now form part of Kozhikode district were part of Madras State. At the time of reorganisation of States a new Malabar district was formed consisting of Malabar district excluding Laccadive and Minicoy Islands and Kasaragod taluk of South Kanara district. In exercise of the powers conferred by the Madras District Limits Act, 1865, the Government of Kerala with effect from 1st January 1957 had altered the jurisdiction of Malabar district and formed three new districts, viz. Cannanore, Kozhikode and Palghat, comprising the Malabar district of States Reorganisation Act, 1956 excluding Cochin and newly formed Chowghat taluks and inclusive of Chittur taluk of Trichur district. On 1st January 1957 South Wynad taluk was part of Cannanore district. With effect from 15th March 1957 South Wynad taluk was transferred to Kozhikode district.

DIX

THE POPULATION INVOLVED IN THOSE CHANGES

Area in 1951*		1951 population according to jurisdiction prevailing in 1951	Population in 1951 adjusted to jurisdiction of 1961	Net increase or decrease between columns 7 and 8	
Sq. miles	Sq. km.				
5	6	7	8		9
...	...	...	177,579	+	177,579
(+ 77.7)	(+ 201.2)	(+ 177,579)			
72.4	187.6	182,910	233,521	+	50,611
(+ 18.2)	(+ 47.1)	(+ 50,611)			
113.4	293.7	231,632	225,558	—	6,074
(— 1.9)	(— 4.9)	(— 6,074)			
2,733.0	**7,078.4**	**3,026,822**	**1,473,995**	—	**1,552,827**
(— 905.7)	(— 2,345.7)	(— 1,552,827)			
935.2	2,422.1	251,779	251,779		...
(— 172.4)	(— 446.5)				
150.6	390.1	185,072	185,072		...
94.2	244.0	256,578	212,041	—	44,537
(— 16.3)	(— 42.2)	(— 44,537)			
146.8	380.2	397,760	397,760		...
212.9	551.4	250,202	250,202		...
415.7	1,076.6	171,992	177,141	+	5,149
(+ 60.6)	(+ 157.0)	(+ 5,149)			
1,489.5	**3,857.8**	**2,154,192**	**1,327,812**	—	826,380
(— **645.5**)	(— **1,671.9**)	(— **826,380**)			
147.0	380.7	295,182	295,182		...
97.4	252.2	371,001	432,459	+	61,458
(+ 22.7)	(+ 58.8)	(+ 61,458)			
233.1	603.8	395,205	349,125	—	46,080
(— 14.0)	(— 36.3)	(— 46,080)			
366.5	949.2	266,424	251,046	—	15,378
(— 8.7)	(— 22.5)	(— 15,378)			

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4 In 1951 there was no Palghat district. The taluks or portions of taluks which now form part of Palghat district were part of the State of Madras and Travancore-Cochin. At the time of reorganisation of States a new Malabar district was formed consisting of Malabar district excluding Laccadive and Minicoy Islands and Kasaragod taluk of South Kanara district. In exercise of the powers conferred by the Madras District Limits Act, 1865, the Government of Kerala with effect from 1st January 1957 had altered the jurisdiction of Malabar district and formed three new districts, viz., Cannanore, Kozhikode and Palghat comprising the Malabar district of the States Reorganisation Act, 1956, excluding Cochin and newly formed Chowghat taluk and inclusive of Chittur taluk of Trichur District. On 15-3-1957 Pookode, Perakam, Iringapram, Kadapram and Manathala villages of Ponnani taluk were transferred to the Chowghat taluk.

5 The Ponnani taluk was part of Malabar district of Madras State till the formation of Kerala State. This taluk was trifurcated into Chowghat taluk, Ponnani taluk and portion of Tirur taluk on 1st January 1957. On 15-3-1957 Pookode, Perakam, Iringapram, Kadapram and Manathala villages were also transferred to Chowghat taluk.

6 The Palghat taluk was part of Malabar district of Madras State till the formation of Kerala State. This taluk was trifurcated into Palghat taluk, Alathur taluk and portion of Chittur taluk on 1st January 1957.

7 The Chittur taluk was part of Trichur district of Travancore-Cochin State till the formation of Kerala State, Kollengode firka (consisting of 14 villages) of Palghat taluk was added to this taluk on 1st January 1957 when the new Palghat district was formed.

8 From 1st October 1956 territorial redistribution in respect of taluks and villages in the Trichur district was effected for the purpose of administration of the revenue department. On the same date the new taluk Cochin, Kanayannur and Alwaye were formed. From the 1st January 1957 Chowghat taluk (Portion of Ponnani taluk of Malabar district) and Fort Cochin taluk of Malabar district were transferred to the Trichur district. On 15-3-1957 five villages of Ponnani taluk were transferred to the existing Chowghat taluk. With effect from 1st April 1958 a new district by name 'Ernakulam' with headquarters at Ernakulam comprising the taluks of Alwaye, Parur, Kunnathunad, Kanayannur and Cochin of Trichur district and Muvattupuzha and Thodupuzha taluks of Kottayam district, was formed.

9 Chowghat taluk was formerly part of Ponnani taluk of Malabar district. This new taluk was formed on 1st January 1957 and was added to Trichur district on the same date.

10 On 1st October 1956 Edavilanga bits 1 & 2 Poyya, Madathumpady and Pallipuram villages of Mukundapuram taluk and Kottapuram kara of Vadakkekara village of Parur taluk were added to the Cranganore taluk.

11 On 1st October 1956 Puthenchira village of Parur taluk was added to this taluk while Edavilanga bits 1 & 2 Poyya, Madathumpady and Pallipuram villages transferred to Cranganore taluk.

12 With effect from 1st April 1958, a new district by name Ernakulam with headquarters at Ernakulam comprising the taluks of Alwaye, Parur, Kunnathunad, Kanayannur and Cochin of Trichur district and Muvattupuzha and Thodupuzha taluks of Kottayam district was formed. The outlying Pattom lands of Fort Cochin Village were transferred to the respective taluks and districts with effect from 1st October 1959.

13 Parur taluk was part of Trichur district in the 1951 Census. On 1st October 1956 portions of this taluk were transferred to Cochin, Kanayannur, Alwaye, Cranganore and Mukundapuram taluks while Chennamangalam village of Cochin-Kanayannur taluk was added to this taluk.

14 Kunnathunad taluk was part of Trichur district in the 1951 Census. On 1st October 1957 portions of this taluk were transferred to Alwaye and Kanayannur taluks while Vadavucode village of Cochin-Kanayannur taluk was added to this taluk.

15 Muvattupuzha taluk was part of Kottayam district in the 1951 Census. On 1st October 1956 portion of Kuttamangalam village including portion of Malayattur reserve was transferred to Devicolam taluk of Kottayam district.

16 Thodupuzha taluk was part of Kottayam district in the 1951 Census. There was no change of jurisdiction at the village or kara level so far as Thodupuzha taluk was concerned.

17 From 1st October 1956, territorial redistribution of taluks and villages in the Kottayam district was effected. Two new taluks Udumbanchola and Kanjirappally were formed with effect from 1st October 1956. On 1st November 1956 Kuttanad taluk was formed and allowed to continue under the revenue jurisdicton of Kottayam district till the formation of Alleppey district on 17th August 1957. On 1st April 1958 Muvattupuzha and Thodupuzha taluks of the erstwhile Kottayam district were transferred to the newly formed Ernakulam District.

18 On 1st October 1956 portion of Kuttamangalam village including portion of Malayattur Reserve forests (now Known as Mannamkandom village) of Muvattupuzha taluk was added to this taluk while Udumbanchola and Poopara villages transferred to the newly formed Udumbanchola taluk.

19 Manakunnam village of Vaikom taluk was transferred to Kanayannur taluk on 1st October 1956.

20 On 1st October 1956 Erikkad, Pariyaram (part) and Puthuppally karas of Puthuppally village and Kunnumbhagom kara of Vellavoor village was added to this taluk while portions (Kayal area) of three villages viz., Nattakom, Kumarakom and Thiruvarppu transferred to Alleppey district.

21 Ramankary, Muttar, Velianad, Chennamkary and Neelamperoor villages were transferred to Kuttanad taluk while portion of Vellavoor kara of Vellavoor village transferred to Thiruvalla taluk. On 1st October, 1956 Erikkad, Pariyaram (Part) and Puthuppally karas of Puthuppally village and Kunnumbhagom kara of Vellavoor village were transferred to Kottayam taluk while five villages viz., Manimala, Cheruvally, Chirakkadavu, Kanjirappally South and Kanjirappally North added to the newly formed Kanjirappally taluk.

22 Portion of Periyar Game Sanctuary in Ranni village of Pathanamthitta taluk was added to Mlappara village of this taluk while Vandanmettu village was transferred to the newly formed Udumbanchola taluk.

23 Alleppey district was newly formed on 17th August 1957 consisting of Shertalai, Ambalapuzha, Thiruvalla, Chengannur, Karthigapally and Mavelikkara taluks of Quilon district and Kuttanad taluk of Kottayam district.

24 On 1st October 1959 Manakkodam East, Manakkodam West and Athazhikad Pattom lands of the Fort-Cochin village were added to this taluk.

25 On 1st October 1959 Kattur and Thumboli Pattom enclaves of Fort Cochin village were added to this taluk.

26 On 1st October 1956 portion of Vellavoor kara of Vellavoor village was transferred from Changanacherry taluk. On the same date a portion of Kallooppara village was transferred to Kanjirappally taluk. A new taluk was formed by name 'Chengannur' consisting of 13 villages of Thiruvalla taluk on 1st November 1956.

27 On 1st October 1956 portions of Karunagappally and Mavelikkara taluks were added to this taluk.

28 Portion of Perungala kara of Perungala village was transferred to Karthigappally taluk on 1st October 1956.

29 From 1st October 1956 territorial re-distribution of taluks and villages in the Quilon district was effected. As per the States Reorganisation Act, 1956 Shencottah taluk was transferred to the Madras State. On 1st November 1956 a new taluk was formed by name 'Chengannur'. A new district by name Alleppey as headquarters comprising the Shertalai, Ambalapuzha, Thiruvalla, Chengannur, Karthigappally and Mavelikkara taluks of Quilon district and Kuttanad taluk of Kottayam district was formed with effect from 17th August 1957.

30 Portion of Periyar Game Sanctuary which formed part of Ranni village of Pathanamthitta taluk was transferred to Mlappara village of Peermade taluk of Kottayam district.

31 Puthuppally village and the newly formed Kayamkulam village were transferred to the Karthigapally taluk of Alleppey district.

32 Arienkavu, Edapalayam and Kazhuthayirutty karas of Puliyara village, Achenkovil kara of Achenputhur village and a portion of Shencottah village with a population of 20 of former Shencottah taluk were transferred to the Pathanapuram taluk.

33 As per the States Reorganisation Act, 1956, Thovala, Agastheeswaram, Kalkulam and Vilavancode taluks of Trivandrum district of the Travancore-Cochin State were transferred to the State of Madras.

34 On 1st October 1956 Nemom and Thiruvallam villages of Neyyattinkara taluk were added to this taluk.

35 Kulathummal village of Nedumangad taluk was added to this taluk while Nemom and Thiruvallam villages were transferred to Trivandrum taluk on 1st October 1956.

36 Kulathummal village was transferred to Neyyattinkara taluk with effect from 1st October 1956.

Table 1

LIVE-BIRTHS FOR KERALA STATE, 1951–61

Year	Total	Males	Females
1951	362,122	185,326	176,796
1952	388,014	199,270	188,744
1953	352,910	181,153	171,757
1954	297,709	153,414	144,295
1955	369,560	190,246	179,314
1956	337,638	174,683	162,955
1957	356,964	184,126	172,838
1958	374,695	192,943	181,752
1959	406,147	209,085	197,062
1960	376,664	194,554	182,110
1961	425,751	219,022	206,729

Table 2

LIVE-BIRTHS BY RELIGIONS FOR KERALA STATE, 1959–61

Religion	Year	Total	Quarter			
			First	Second	Third	Fourth
Hindu	1959	247,801	60,842	62,728	61,410	62,821
	1960	229,226	52,872	55,901	57,422	63,031
	1961	259,346	63,096	67,634	65,593	63,023
Muslims	1959	75,576	17,204	19,994	19,710	18,668
	1960	68,186	14,731	16,107	18,443	18,905
	1961	80,256	19,645	21,169	20,339	19,103
Christians	1959	81,073	20,215	19,868	20,148	20,842
	1960	78,975	17,612	18,408	19,680	23,275
	1961	85,598	21,201	21,180	21,635	21,582
Others	1959	1,697	314	385	678	320
	1960	277	50	56	80	91
	1961	551	61	49	389	52

Table 3

LIVE-BIRTHS IN EACH QUARTER BY DISTRICTS, 1959—61

Districts	Year	Total	Quarter			
			I	II	III	IV
Trivandrum	1959	42,442	10,057	10,546	9,881	11,958
	1960	40,022	8,420	8,561	9,789	13,252
	1961	42,182	9,730	10,873	10,193	11,386
Quilon	1959	47,032	11,133	10,443	11,669	13,787
	1960	43,405	10,061	11,041	9,394	12,909
	1961	48,980	12,126	11,262	12,500	13,092
Alleppey	1059	44,327	10,614	10,633	11,175	11,905
	1960	39,504	8,607	8,540	10,167	12,190
	1961	43,866	10,558	10,153	11,351	11,804
Kottayam	1959	45,918	11,709	11,168	11,337	11,704
	1960	43,935	10,653	10,089	11,024	12,169
	1961	46,842	12,876	11,829	11,222	10,915
Ernakulam	1959	40,027	10,635	10,291	9,087	10,014
	1960	38,297	8,753	10,025	9,395	10,124
	1961	44,530	10,981	11,703	11,137	10,709
Trichur	1959	28,699	8,399	7,617	7,616	5,067
	1960	27,503	6,742	6,609	6,882	7,270
	1961	29,592	7,233	7,752	7,745	6,862
Palghat	1959	43,592	10,626	12,351	11,013	9,602
	1960	40,705	9,202	10,995	10,460	10,048
	1961	45,186	11,671	13,594	10,763	9,158
Kozhikode	1959	62,645	13,888	17,105	16,101	15,551
	1960	56,861	12,654	13,478	16,045	14,684
	1961	70,650	16,052	18,514	19,011	17,073
Cannanore	1959	51,465	11,514	12,821	14,067	13,063
	1960	46,432	10,173	11,134	12,469	12,656
	1961	53,923	12,776	14,352	14,034	12,761

Table 4

STILL-BIRTHS FOR KERALA STATE, 1959–61

Number of births

State / District	Quarter	Total			Rural			Urban		
		1959	1960	1961	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11
Kerala	**Total**	**4,228**	**4,450**	**3,894**	**1,876**	**2,197**	**1,809**	**2,352**	**2,253**	**2,085**
	I	1,029	1,017	1,001	411	516	535	618	501	466
	II	1,096	1,143	1,079	543	553	482	553	590	597
	III	1,069	1,113	925	504	579	392	565	534	533
	IV	1,034	1,177	889	418	549	400	616	628	489
Trivandrum	**Total**	**632**	**631**	**605**	**78**	**55**	**66**	**554**	**576**	**539**
	I	177	120	110	22	14	18	155	106	92
	II	187	151	205	24	5	11	163	146	194
	III	130	145	133	18	20	17	112	125	116
	IV	138	215	157	14	16	20	124	199	137
Quilon	**Total**	**620**	**708**	**727**	**270**	**395**	**355**	**350**	**313**	**372**
	I	105	173	157	41	74	77	64	99	80
	II	159	182	168	70	120	78	89	62	90
	III	198	161	193	98	102	74	100	59	119
	IV	158	192	209	61	99	126	97	93	83
Alleppey	**Total**	**252**	**194**	**160**	**102**	**96**	**92**	**150**	**98**	**68**
	I	68	37	37	32	20	26	36	17	11
	II	54	42	54	17	24	26	37	18	28
	III	71	62	33	29	30	18	42	32	15
	IV	59	53	36	24	22	22	35	31	14
Kottayam	**Total**	**495**	**383**	**371**	**383**	**342**	**296**	**112**	**41**	**75**
	I	124	74	85	104	59	73	20	15	12
	II	120	69	113	94	64	77	26	5	36
	III	139	116	95	103	104	81	36	12	14
	IV	112	124	78	82	115	65	30	9	13
Ernakulam	**Total**	**454**	**444**	**445**	**164**	**175**	**193**	**290**	**269**	**252**
	I	141	68	114	51	51	46	90	17	68
	II	111	142	105	40	46	44	71	96	61
	III	102	114	104	33	24	42	69	90	62
	IV	100	120	122	40	54	61	60	66	61
Trichur	**Total**	**153**	**331**	**280**	**94**	**102**	**135**	**59**	**229**	**145**
	I	49	100	114	32	45	40	17	55	74
	II	35	109	73	29	22	58	6	87	15
	III	32	79	28	17	28	5	15	51	23
	IV	37	43	65	16	7	32	21	36	33
Palghat	**Total**	**495**	**424**	**293**	**357**	**307**	**201**	**138**	**117**	**92**
	I	112	81	103	76	51	72	36	30	31
	II	145	123	105	103	85	86	42	38	19
	III	143	107	30	104	93	28	39	14	2
	IV	95	113	55	74	78	15	21	35	40

Table 4 — *concld.*

STILL-BIRTHS FOR KERALA STATE, 1959-61 — *concld.*

State/District	Quarter	Number of births								
		Total			Rural			Urban		
		1959	1960	1961	1959	1960	1961	1959	1960	1961
1	2	3	4	5	6	7	8	9	10	11
Kozhikode	**Total**	**766**	**889**	**615**	**177**	**417**	**247**	**589**	**472**	**368**
	I	171	285	161	29	147	105	142	138	56
	II	156	216	154	66	105	49	90	111	105
	III	180	225	209	44	106	67	136	119	142
	IV	259	163	91	38	59	26	221	104	65
Cannanore	**Total**	**361**	**446**	**398**	**251**	**308**	**224**	**110**	**138**	**174**
	I	82	79	120	24	55	78	58	24	42
	II	129	109	102	100	82	53	29	27	49
	III	74	104	100	58	72	60	16	32	40
	IV	76	154	76	69	99	33	7	55	43

Table 5

DEATHS BY AGE-GROUPS FOR KERALA STATE, 1951-61

Year	Total	Deaths according to age-groups									
		Below one year	1—4	5—9	10—14	15—19	20—29	30—39	40—49	50—59	60 +
1951	114,982	19,672	20,708	5,466	2,791	3,800	7,479	8,069	9,006	8,694	29,297
1952	114,798	21,409	20,070	4,979	2,544	3,114	7,299	7,959	8,262	8,824	30,338
1953	133,352	21,902	26,878	5,798	2,728	3,611	7,417	8,327	8,900	10,192	37,599
1954	109,266	15,549	17,567	4,994	2,483	2,800	6,529	7,350	7,998	9,547	34,449
1955	121,600	20,425	23,396	6,124	2,393	2,784	6,326	7,413	7,464	8,876	36,399
1956	108,894	18,143	23,124	3,400	1,341	2,428	5,828	6,648	6,920	8,004	33,058
1957	143,229	21,781	28,658	7,295	3,043	2,599	7,287	7,955	8,889	11,431	44,291
1958	115,358	18,537	22,145	5,637	2,857	2,455	6,218	6,853	7,186	8,738	34,732
1959	120,815	20,214	21,995	5,599	2,388	1,931	6,067	6,995	7,394	9,301	38,931
1960	109,243	14,987	16,823	5,293	2,435	1,872	5,108	6,173	7,114	9,333	40,105
1961	123,456	17,804	21,984	6,904	2,801	2,067	5,432	6,642	7,566	9,984	42,272

Table 6

DEATHS BY AGE-GROUPS AND DISTRICTS, 1959-61

District	Year	Quarter	Total	Deaths according to age-groups									
				Below one year	1-4	5-9	10-14	15-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Trivandrum	**1959**	**Total**	**10,070**	**1,323**	**1,557**	**396**	**182**	**170**	**559**	**650**	**740**	**964**	**3,529**
		I	2,169	296	308	107	34	41	130	147	165	214	727
		II	2,831	450	595	110	48	52	157	165	197	225	832
		III	2,603	279	359	92	45	38	136	152	201	247	1,054
		IV	2,467	298	295	87	55	39	136	186	177	278	916
	1960	**Total**	**9,423**	**1,156**	**1,369**	**355**	**150**	**179**	**550**	**664**	**731**	**943**	**3,326**
		I	1,849	219	210	63	36	35	112	146	140	192	696
		II	2,202	262	286	74	43	52	145	167	175	236	762
		III	2,433	265	380	101	34	47	161	171	192	233	849
		IV	2,939	410	493	117	37	45	132	180	224	282	1,019
	1961	**Total**	**10,295**	**1,324**	**1,770**	**518**	**203**	**165**	**546**	**710**	**768**	**1,007**	**3,284**
		I	2,052	264	390	100	36	20	89	128	140	189	696
		II	2,536	347	505	134	45	38	127	174	172	234	760
		III	2,728	320	459	134	49	48	153	181	203	260	921
		IV	2,979	393	416	150	73	59	177	227	253	324	907
Quilon	**1959**	**Total**	**8,986**	**1,251**	**1,265**	**348**	**170**	**206**	**500**	**559**	**654**	**835**	**3,198**
		I	1,898	290	173	101	52	56	124	113	139	179	671
		II	2,055	323	384	62	38	54	119	124	142	169	640
		III	2,715	320	411	100	49	55	133	168	194	263	1,022
		IV	2,318	318	297	85	31	41	124	154	179	224	865
	1960	**Total**	**9,395**	**1,137**	**1,321**	**410**	**166**	**155**	**502**	**577**	**647**	**900**	**3,580**
		I	1,677	227	186	45	35	25	110	123	125	171	630
		II	2,119	277	267	76	37	39	110	113	136	209	855
		III	2,602	297	336	124	38	41	140	149	196	269	1,012
		IV	2,997	336	532	165	56	50	142	192	190	251	1,083
	1961	**Total**	**10,864**	**1,429**	**1 881**	**582**	**201**	**155**	**469**	**602**	**689**	**1,156**	**3,700**
		I	2,458	296	461	179	50	30	97	142	127	215	861
		II	2,451	344	426	135	57	48	112	127	175	258	769
		III	3,310	442	641	139	54	34	133	188	197	370	1,112
		IV	2,645	347	353	129	40	43	127	145	190	313	958
Alleppey	**1959**	**Total**	**11,184**	**1,361**	**2,029**	**527**	**213**	**149**	**514**	**667**	**778**	**1,093**	**3,853**
		I	2,478	371	547	144	50	41	144	192	177	252	560
		II	2,628	369	517	120	57	39	114	147	167	222	876
		III	3,229	318	551	138	52	34	142	165	230	324	1,275
		IV	2,849	303	414	125	54	35	114	163	204	295	1,142
	1960	**Total**	**11,257**	**1,009**	**1,982**	**530**	**246**	**152**	**492**	**636**	**783**	**1,071**	**4,356**
		I	2,126	202	293	83	46	42	92	140	157	224	847
		II	2,334	212	374	105	45	23	105	134	179	257	900
		III	3,220	259	578	143	60	43	142	183	201	279	1,332
		IV	3,577	336	737	199	95	44	153	179	246	311	1,277

Table 6 —*contd.*

DEATHS BY AGE-GROUPS AND DISTRICTS, 1959-61—*contd.*

District	Year	Quarter	Total	Deaths according to age-groups								
				Below one year	1-4	5-9	10-14	15-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1961	**Total**	**12,098**	**1,216**	**2,285**	**691**	**251**	**178**	**479**	**621**	**754**	**1,124**	**4,499**
		I	2,877	262	611	177	56	41	116	157	157	285	1,015
		II	2,518	260	475	148	52	33	104	135	178	244	889
		III	3,792	358	725	235	81	57	143	161	241	318	1,473
		IV	2,911	336	474	131	62	47	116	168	178	277	1,122
Kottayam	**1959**	**Total**	**10,917**	**1,952**	**1,734**	**641**	**252**	**211**	**565**	**627**	**567**	**727**	**3,641**
		I	2,674	462	466	168	63	41	143	163	159	181	828
		II	2,780	526	505	220	87	60	150	167	143	181	741
		III	2,960	455	427	135	58	56	152	169	154	182	1,172
		IV	2,503	509	336	118	44	54	120	128	111	183	900
	1960	**Total**	**10,500**	**1,811**	**1,713**	**585**	**297**	**182**	**482**	**580**	**536**	**723**	**3,591**
		I	2,074	376	290	103	48	49	103	111	116	145	733
		II	2,363	391	404	141	65	44	124	147	120	163	764
		III	2,952	493	480	162	96	43	126	153	163	195	1,041
		IV	3,111	551	539	179	88	46	129	169	137	220	1,053
	1961	**Total**	**11,994**	**1,937**	**2,104**	**801**	**328**	**185**	**563**	**644**	**567**	**749**	**4,116**
		I	3,006	497	562	262	93	50	128	155	122	191	946
		II	2,820	485	561	196	81	42	142	126	143	185	859
		III	3,537	516	593	219	81	50	150	187	174	205	1,362
		IV	2,631	439	388	124	73	43	143	176	128	168	949
Ernakulam	**1959**	**Total**	**10,133**	**1,461**	**1,994**	**598**	**247**	**136**	**550**	**593**	**683**	**778**	**3,093**
		I	2,587	437	510	174	71	35	146	163	180	194	677
		II	2,431	369	539	173	59	26	126	164	167	160	648
		III	2,748	336	511	130	64	35	134	145	181	218	994
		IV	2,367	319	434	121	53	40	144	121	155	206	774
	1960	**Total**	**9,098**	**1,148**	**1,691**	**479**	**162**	**124**	**429**	**515**	**608**	**714**	**3,228**
		I	1,811	254	290	84	27	24	90	100	124	130	688
		II	2,162	303	414	101	38	32	110	126	178	163	697
		III	2,514	271	520	139	47	28	102	146	158	201	902
		IV	2,611	320	467	155	50	40	127	143	148	220	941
	1961	**Total**	**10,955**	**1,356**	**2,184**	**733**	**239**	**139**	**474**	**597**	**697**	**877**	**3,659**
		I	2,664	348	581	193	58	47	113	141	181	191	811
		II	2,632	334	603	195	64	26	112	144	172	210	772
		III	3,077	363	599	187	58	36	127	160	182	231	1,134
		IV	2,582	311	401	158	59	30	122	152	162	245	942
Trichur	**1959**	**Total**	**8,255**	**1,292**	**1,312**	**335**	**181**	**130**	**418**	**524**	**590**	**775**	**2,698**
		I	2,497	429	440	140	44	45	115	159	150	211	764
		II	2,077	375	400	64	52	42	98	139	144	205	558
		III	2,076	270	302	63	34	20	105	109	158	205	810
		IV	1,605	218	170	68	51	23	100	117	138	154	566

Table 6— *contd.*

DEATHS BY AGE-GROUPS AND DISTRICTS, 1959-61 —*contd.*

District	Year	Quarter	Total	Deaths according to age-groups									
				Below one year	1-4	5-6	10-14	15-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1960	**Total**	**7,176**	**953**	**1,079**	**291**	**146**	**98**	**366**	**423**	**509**	**642**	**2,669**
		I	1,620	220	245	66	42	22	78	100	110	142	595
		II	1,774	273	234	70	42	24	109	112	130	163	617
		III	1,821	200	287	72	22	24	91	99	127	161	738
		IV	1,961	260	313	83	40	28	88	112	142	176	719
	1961	**Total**	**7,610**	**958**	**1,338**	**343**	**163**	**123**	**357**	**494**	**529**	**631**	**2,674**
		I	1,891	242	381	107	40	23	82	118	128	159	611
		II	1,788	269	342	75	41	34	95	128	126	126	552
		III	2,062	244	350	57	36	24	89	121	136	168	837
		IV	1,869	203	265	104	46	42	91	127	139	178	674
Palghat	**1959**	**Total**	**21,008**	**4,175**	**4,129**	**1,041**	**459**	**353**	**999**	**1,098**	**1,200**	**1,386**	**6.168**
		I	4,681	962	828	279	134	94	297	284	304	278	1,221
		II	6,330	1,504	1,394	332	144	100	268	290	326	379	1,593
		III	6,017	1,012	1,367	287	97	89	214	285	300	416	1,950
		IV	3,980	697	540	143	84	70	220	239	270	313	1,404
	1960	**Total**	**16,312**	**2,718**	**2,144**	**859**	**454**	**371**	**782**	**806**	**1,047**	**1,342**	**5,789**
		I	3,658	579	429	152	85	82	220	186	260	322	1,343
		II	4,220	807	603	216	102	104	192	234	265	333	1,364
		III	4,396	675	565	280	149	86	154	160	274	370	1,683
		IV	4,038	657	547	211	118	99	216	226	248	317	1,399
	1961	**Total**	**19,013**	**3,226**	**3,193**	**1,126**	**484**	**394**	**786**	**871**	**1,176**	**1,406**	**6.351**
		I	4,070	709	681	259	103	76	155	232	245	314	1,296
		II	5,263	1,041	951	340	174	123	258	203	326	371	1,476
		III	5,747	931	932	322	121	108	215	241	379	374	2,124
		IV	3,933	545	629	205	86	87	158	195	226	347	1,455
Kozhikode	**1959**	**Total**	**23,269**	**4,240**	**4,832**	**949**	**407**	**349**	**1,183**	**1,424**	**1,289**	**1,575**	**7,021**
		I	4,219	788	790	227	82	87	234	341	262	323	1,085
		II	6,715	1,509	1,813	234	117	109	328	341	295	369	1,600
		III	7,506	1,120	1,562	302	109	82	327	397	400	502	2,705
		IV	4,829	823	667	186	99	71	294	345	332	381	1,631
	1960	**Total**	**20,707**	**2,694**	**2,774**	**1,049**	**523**	**402**	**834**	**1,174**	**1,335**	**1,836**	**8,086**
		I	4,360	587	537	218	102	80	209	326	328	384	1,589
		II	5,649	775	726	256	169	96	207	294	314	437	2,375
		III	5,666	657	645	344	178	145	236	250	359	548	2,304
		IV	5,032	675	866	231	74	81	182	304	334	467	1,818
	1961	**Total**	**24,346**	**3,561**	**4,376**	**1,336**	**665**	**512**	**1,048**	**1,291**	**1,490**	**1,881**	**8,186**
		I	4,746	674	870	258	108	81	226	299	321	336	1,573
		II	6,064	995	1,140	372	205	114	218	315	333	476	1,896
		III	8,473	1,198	1,595	448	206	164	335	390	474	621	3,042
		IV	5,063	694	771	258	146	153	269	287	362	448	1,675

Table 6 —*concld.*

DEATHS BY AGE-GROUPS AND DISTRICTS, 1959-61 —*concld.*

District	Year	Quarter	Total	Deaths according to age-groups: Below one year	1-4	5-9	10-14	15-19	20-29	30-39	40-49	50-59	60+
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cannanore	**1959**	**Total**	**16,993**	**3,159**	**3,143**	**764**	**277**	**227**	**779**	**853**	**893**	**1,168**	**5,730**
		I	3,108	626	514	136	63	54	160	165	168	266	956
		II	3,855	805	773	181	62	44	193	212	199	231	1,155
		III	5,597	1,003	1,140	241	77	71	210	252	281	361	1,961
		IV	4,433	725	716	206	75	58	216	224	245	310	1,658
	1960	**Total**	**15,375**	**2,361**	**2,750**	**735**	**291**	**209**	**671**	**798**	**918**	**1,162**	**5,480**
		I	3,378	539	531	150	54	47	157	202	207	274	1,217
		II	3,551	569	634	147	70	59	181	181	228	266	1,216
		III	4,221	616	822	205	86	46	184	205	263	305	1,489
		IV	4,225	637	763	233	81	57	149	210	220	317	1,558
	1961	**Total**	**16,281**	**2,797**	**2,853**	**774**	**267**	**216**	**710**	**812**	**896**	**1,153**	**5,803**
		I	3,645	610	640	196	71	63	167	195	216	248	1,239
		II	3,366	597	573	181	58	45	172	219	191	238	1,092
		III	5,452	951	1,050	236	82	58	210	217	278	362	2,008
		IV	3,818	639	590	161	56	50	161	181	211	305	1,464

Table 7

DEATHS BY CAUSES, KERALA STATE, 1951—61

Year	Total	Deaths by causes: Cholera	Small-pox	Fevers	Dysentry and diarrhoea	Respiratory diseases	Injuries and accidents	Maternal deaths	All other causes
1951	114,982	226	947	22,274	6,687	13,335	2,150	1,202	68,161
1952	114,798	55	550	19,112	6,335	13,223	2,220	1,261	72,042
1953	133,352	477	657	20,933	10,770	12,796	2,468	1,158	84,093
1954	109,266	95	985	16,071	5,580	11,418	2,297	941	71,879
1955	121,600	2	287	19,172	6,729	11,901	1,681	1,076	80,752
1956	108,894	1	329	13,179	5,460	12,090	2,259	992	74,584
1957	143,229	...	601	15,967	9,768	14,126	2,481	1,068	99,218
1958	115,358	27	1,082	15,356	6,993	11,521	2,459	1,037	76,883
1959	120,815	...	2,389	13,131	7,588	13,187	2,642	1,104	80,774
1960	109,243	.	587	10,682	6,216	13,169	2,963	796	74,830
1961	123,456	...	469	12,363	8,509	13,632	2,895	1,021	84,567

Table 8

DEATHS BY CAUSES AND DISTRICTS 1959—61

Districts	Year	Quarter	Total	Deaths by causes							
				Cholera	Small-pox	Fevers	Dysentry and Diarrhoea	Respir-atory diseases	Injuries and accidents	Mater-nal death	All other causes
1	2	3	4	5	6	7	8	9	10	11	12
Trivandrum	**1959**	**Total**	**10,070**	...	**22**	**755**	**794**	**1,623**	**205**	**66**	**6,605**
		I	2,169	...	20	168	162	368	59	13	1,379
		II	2,831	...	1	197	330	442	60	22	1,779
		III	2,603	...	..	215	176	429	47	17	1,719
		IV	2,467	...	1	175	126	384	39	14	1,728
	1960	**Total**	**9,423**	...	**1**	**644**	**556**	**1.536**	**168**	**61**	**6.457**
		I	1,849	...	...	147	76	316	43	18	1,249
		II	2,202	...	...	163	128	368	42	12	1,489
		III	2,433	...	1	153	149	373	37	17	1,703
		IV	2,939	...	...	181	203	479	46	14	2,016
	1961	**Total**	**10 295**	...	**3**	**678**	**786**	**1.672**	**211**	**77**	**6 868**
		I	2,052	...	1	165	169	354	49	16	1.298
		II	2,536	...	.	152	239	478	56	20	1,591
		III	2,728	...	2	192	206	398	43	12	1.875
		IV	2,979	...	...	169	172	442	63	29	2,104
Quilon	**1959**	**Total**	**8 986**	...	**37**	**448**	**604**	**1,336**	**215**	**72**	**6.274**
		I	1,898	...	30	94	99	272	40	20	1,343
		II	2,055	...	5	141	175	325	48	18	1,343
		III	2,715	...	1	122	210	371	69	21	1,921
		IV	2,318		1	91	120	368	58	13	1,667
	1960	**Total**	**9,395**	...	**10**	**375**	**620**	**1.365**	**209**	**88**	**6.728**
		I	1,677	...	2	76	60	274	49	16	1,200
		II	2,119	...	...	87	150	344	41	18	1,479
		III	2,602	...	4	113	172	372	49	18	1,874
		IV	2,997	...	4	99	238	375	70	36	2,175
	1961	**Total**	**10.864**	...	**23**	**541**	**1,017**	**1.632**	**251**	**118**	**7,282**
		I	2,458	...	...	110	192	322	42	34	1,758
		II	2,451	...	6	117	245	406	56	19	1,602
		III	3,310	...	10	179	384	484	78	41	2,134
		IV	2,645	...	7	135	196	420	75	24	1,788
Alleppey	**1959**	**Total**	**11,184**	...	**77**	**725**	**697**	**1.421**	**336**	**184**	**7.744**
		I	2,478	...	59	154	166	289	64	17	1,729
		II	2,628		2	145	195	245	74	30	1,937
		III	3,229	...	3	239	202	526	150	122	1,987
		IV	2,849	...	13	187	134	361	48	15	2,091
	1960	**Total**	**11,257**	...	**8**	**679**	**694**	**1,308**	**153**	**64**	**8,351**
		I	2,126	...	3	132	81	296	44	10	1,560
		II	2,334	...	...	112	125	293	25	14	1,765
		III	3,220	...	1	195	219	376	34	19	2,376
		IV	3,577	...	4	240	269	343	50	21	2,650

Table 8—*contd.*

DEATHS BY CAUSES AND DISTRICTS 1959-61—*contd.*

Districts	Year	Quarter	Total	Deaths by causes							
				Cholera	Small-pox	Fevers	Dysentry and Diarrhoea	Respir-atory diseases	Injuries and accidents	Mater-nal death	All other causes
1	2	3	4	5	6	7	8	9	10	11	12
	1961	**Total**	**12,098**	...	**5**	**825**	**1,137**	**1,377**	**285**	**98**	**8,371**
		I	2,877	...	...	176	281	288	67	26	2,039
		II	2,518	...	1	163	218	321	56	27	1,732
		III	3,792	...	1	280	423	401	74	23	2,590
		IV	2,911	...	3	206	215	367	88	22	2,010
Kottayam	**1959**	**Total**	**10,917**	...	**71**	**906**	**726**	**1,062**	**282**	**95**	**7,775**
		I	2,674	...	25	197	212	288	87	31	1,834
		II	2,780	...	11	203	288	261	85	28	1,904
		III	2,960	...	18	288	134	261	66	23	2,170
		IV	2,503	...	17	218	92	252	44	13	1,867
	1960	**Total**	**10,500**	...	**2**	**807**	**500**	**1,262**	**238**	**76**	**7,615**
		I	2,074	...	2	164	57	216	48	16	1,571
		II	2,363	...	...	192	137	253	72	19	1,690
		III	2,952	...	...	215	149	358	47	20	2,163
		IV	3,111	...	...	236	157	435	71	21	2,191
	1961	**Total**	**11,994**	...	**5**	**950**	**819**	**1,372**	**278**	**92**	**8,478**
		I	3,006	...	...	204	237	369	78	28	2,090
		II	2,820	...	...	260	194	314	68	29	1,955
		III	3,537	...	4	320	261	376	68	13	2,495
		IV	2,631	...	1	166	127	313	64	22	1,938
Ernakulam	**1959**	**Total**	**10,133**	...	**273**	**1,151**	**677**	**1,630**	**234**	**62**	**6,106**
		I	2,587	..	184	257	126	377	64	29	1,550
		II	2,431	...	74	284	174	340	58	11	1,490
		III	2,748	...	7	354	222	550	54	13	1,548
		IV	2,367	...	8	256	155	363	58	9	1,518
	1960	**Total**	**9,098**	...	...	**904**	**621**	**1,380**	**194**	**72**	**5,927**
		I	1,811	...	...	174	129	355	41	15	1,097
		II	2,162	...	...	188	167	417	53	21	1,316
		III	2,514	...	...	219	188	319	46	16	1,726
		IV	2,611	...	...	323	137	289	54	20	1,788
	1961	**Total**	**10,955**	...	**3**	**1,302**	**878**	**1,112**	**321**	**57**	**7,282**
		I	2,664	...	3	291	244	267	74	18	1,767
		II	2,632	...	...	284	226	236	82	16	1,788
		III	3,077	...	...	414	247	300	82	14	2,020
		IV	2,582	...	...	313	161	309	83	9	1,707
Trichur	**1959**	**Total**	**8,255**	...	**649**	**643**	**322**	**682**	**131**	**38**	**5,790**
		I	2,497	...	471	194	67	125	50	13	1,577
		II	2,077	...	131	163	111	153	28	10	1,481
		III	2,076	...	33	163	58	219	33	3	1,567
		IV	1,605	...	14	123	86	185	20	12	1,165

Table 8 —*contd.*

DEATHS BY CAUSES AND DISTRICTS 1959-61 —*contd.*

Districts	Year	Quarter	Total	Deaths by causes: Cholera	Small-pox	Fevers	Dysentry and Diarrhoea	Respiratory diseases	Injuries and accidents	Maternal death	All other causes
1	2	3	4	5	6	7	8	9	10	11	12
	1960	**Total**	**7,176**	...	**63**	**728**	**286**	**845**	**164**	**42**	**5,048**
		I	1,620	...	31	192	70	185	33	13	1,096
		II	1,774	...	22	128	82	203	29	12	1,298
		III	1,821	...	5	204	58	227	46	6	1,275
		IV	1,961	...	5	204	76	230	56	11	1,379
	1961	**Total**	**7,610**	...	**12**	**827**	**318**	**797**	**234**	**54**	**5,368**
		I	1,891	..	6	211	66	199	66	14	1,329
		II	1,788	...	...	205	79	156	52	22	1,274
		III	2,062	..	6	217	97	249	51	10	1,432
		IV	1,869	...	...	194	76	193	65	8	1,333
Palghat	**1959**	**Total**	**21,008**	...	**681**	**1,880**	**1,437**	**1,482**	**417**	**190**	**14,921**
		I	4,681	...	278	465	235	303	105	44	3,251
		II	6,330	...	282	585	596	444	124	51	4,248
		III	6,017	...	74	510	463	414	64	57	4,435
		IV	3,980	.	47	320	143	321	124	38	2,987
	1960	**Total**	**16,312**	...	**196**	**1,399**	**1,030**	**1,432**	**635**	**100**	**11,520**
		I	3,658	...	85	340	195	308	166	28	2,536
		II	4,220	...	59	341	282	368	104	29	3,037
		III	4,396	...	35	340	300	396	177	14	3,134
		IV	4,038	...	17	378	253	360	188	29	2,813
	1961	**Total**	**19,013**	...	**148**	**1,709**	**1,240**	**1,440**	**409**	**139**	**13,928**
		I	4,070	...	30	331	234	330	93	31	3,021
		II	5,263	...	35	526	368	398	106	39	3,791
		III	5,747	...	64	574	466	437	126	37	4,043
		IV	3,933	...	19	278	172	275	84	32	3,073
Kozhikode	**1959**	**Total**	**23,269**	...	**374**	**3 134**	**1,622**	**1,881**	**488**	**245**	**15,525**
		I	4,219	...	142	542	169	396	119	40	2,811
		II	6,715	...	138	957	681	426	131	75	4,307
		III	7,506	...	52	1,075	590	605	134	66	4,984
		IV	4,829	...	42	560	182	454	104	64	3,423
	1960	**Total**	**20,707**	...	**282**	**2 227**	**1,373**	**1,935**	**633**	**184**	**14 073**
		I	4,360	...	99	508	183	458	104	49	2,959
		II	5,649	.	102	581	361	510	145	45	3,905
		III	5,666	...	62	594	437	511	196	41	3,825
		IV	5,032		19	544	392	456	188	49	3,384
	1961	**Total**	**24,346**	...	**215**	**2 595**	**1,723**	**2,192**	**550**	**253**	**16 818**
		I	4,746	...	89	570	246	505	135	59	3,142
		II	6,064		53	640	484	555	127	70	4,135
		III	8,473	...	28	877	685	669	150	74	5,990
		IV	5,063	...	45	508	308	463	138	50	3,551

Table 8—*concld.*

DEATHS BY CAUSES AND DISTRICTS 1959—61– *concld.*

Districts	Year	Quarter	Total	Deaths by causes							
				Cholera	Small-pox	Fevers	Dysentry and Diarrhoea	Respir-atory diseases	Injuries and accidents	Mater-nal death	All other causes
1	2	3	4	5	6	7	8	9	10	11	12
Cannanore	**1959**	**Total**	**16,993**	...	**205**	**3,489**	**709**	**2,070**	**334**	**152**	**10,034**
		I	3,108	...	94	632	125	355	77	51	1,774
		II	3,855	...	60	767	209	501	76	32	2,210
		III	5,597	...	35	1,145	231	782	78	39	3,287
		IV	4,433		16	945	144	432	103	30	2,763
	1960	**Total**	**15,375**	...	**25**	**2,919**	**536**	**2,106**	**569**	**109**	**9,111**
		I	3,378	...	8	636	148	432	94	25	2,035
		II	3,551	...	6	692	100	492	109	30	2,122
		III	4,221	...	5	822	127	565	177	33	2,492
		IV	4,225	...	6	769	161	617	189	21	2,462
	1961	**Total**	**16,281**	...	**55**	**2,936**	**591**	**2 038**	**356**	**133**	**10,172**
		I	3,645	...	14	675	142	509	111	37	2,157
		II	3,366	...	7	584	138	456	94	41	2,046
		III	5,452	...	15	1,001	237	648	80	27	3,444
		IV	3,818	...	19	676	74	425	71	28	2,525

REPORT ON FERTILITY SURVEY

INTRODUCTION

Birth, death and migration are the three vital events affecting the growth of population. Of these birth may be considered as the most important factor because the replacement of population is effected by births. "Data on fertility, that is, the frequency of births in a population, form an almost indispensable basis for studying the prospects of population growth in a country, the probable development of its age structure, and the possible effects on population growth of economic and social changes, public health measures and other factors. Knowledge of the fertility of different groups of the population, such as religious or ethnic groups, makes it possible to predict changes in the composition of the population."[1]

Genesis

It is widely recognised that registration statistics relating to births and deaths are of very poor quality in India. In a study of population growth much reliance cannot thus be placed on registration statistics. Several attempts have been made in the past by various organisations to collect reliable statistics on births and deaths through sample surveys. The Census Organisation itself had made an enquiry relating to fertility of married women as early as in the census of 1911, in the Central Provinces. The scope of this enquiry, however, was very limited. Later, in 1921, enquiries of a similar nature were conducted in some other areas including Travancore State. A more elaborate enquiry on fertility was undertaken in 1931. During 1952–53 a post-census sample survey on births and deaths was conducted. The 1% Sample Census conducted in 1961 was also aimed at collecting data on births and deaths. At the time of finalising the questionnaire for 1961 Census views were expressed favouring the inclusion of a questionnaire on fertility in the general census. But it was finally decided that fertility should not be mixed up with the general census questions. It should rather be made the subject of a sample survey. A sample survey had, among other things, the advantage of utilising the services of well trained investigators thereby ensuring the quality of the basic data. The following observations of the Population Division of the United Nations are relevant in this context. "In spite of their value, however, it is generally inadvisable for countries with limited resources or census experience to attempt to collect detailed data on fertility or duration of marriage on a 100 per cent basis in a general population census. Questions of this nature add greatly to the cost and complexity of the census and often do not produce accurate results...The United Nations recommendations, therefore, call only for the collection of information on the number of live births and the tabulation of women by age-groups and the number of live births. Because of the importance of more detailed fertility data, however, serious consideration might be given to the possibility of collecting information in a special survey or on a sample basis in connection with the regular population census. By this means costs are usually reduced, more accurate data can be secured because more time can be devoted to each interview and greater co-operation can be secured from the respondents through the use of specially trained women canvassers where it is considered advisable."

The Registrar General while stressing the importance of the fertility survey pointed

[1] Handbook on Population Census Methods Vol. III by United Nations

out that the census, in the absence of a survey of this type, cannot provide to the Planning Commission, the State Governments and other concerned agencies necessary basic materials for population projections and that, therefore, the same degree of diligence and enthusiasm as was evinced in the case of the past census projects should continue in this case also. Thus finally it was decided to conduct a fertility survey of ever-married women, using the personnel employed in the regional tabulation offices for the sorting and tabulation work of the general census, as investigators and supervisors. The Deputy Superintendents of Census Operations were made completely responsible for training the staff and conducting the survey.

Objective

The object of the post-census survey was primarily to collect information on the fertility pattern of Indian women. While in the previous fertility survey conducted along with the sample census, only still married women were considered and the fertility differentials of only the wives of heads of households were studied, in the present surveys all ever-married women were included and their fertility differentials according to various characteristics ascertained.

Sample

The fertility survey was conducted in the same sample blocks as were selected for the post enumeration check which covered the entire geographical area of the State except inaccessible and special areas. Thus the 55 taluks, one municipal corporation and 28 municipal towns were covered in this survey. Altogether 56 blocks were surveyed in the urban areas and 174 in the rural areas. The sample size for this survey came to 1 in every 100 blocks in the rural areas and 1 in every 50 in the urban areas.

Coverage

A list of households as on the date of census count was given to the investigators. While enumerating the households the investigators were instructed to include any new household which came into existence after the date of census count, whether in a new house or in a house which already existed on the said date. Households mentioned in the list, but not in existence on the date of survey, were to be excluded. Thus the survey covered all households in the selected blocks as on the date of enquiry. A household for the purpose of this survey consisted of all persons present on the date of enquiry. This included guests provided they were not from the same village or town and excluded absentees who have gone outside the village or town.

Before the actual survey the proposed schedule was pretested in a few rural and urban households and as no modifications were felt necessary in the light of the experience of the pretest, the schedules were finalised without change.

Training and Duration of Survey

The investigators were given two days' training which included actual filling up of the schedules. The field operations were started in January 1962.

Generally, only one enumerator's block was assigned to an investigator. The work in a block was expected to be completed in 12 days. The work of ten such investigators was inspected by one supervisor except in the case of Kasaragod and Hosdrug taluks where the number of blocks was only eight. The supervisors inspected not less than 10 per cent of the households in each block. The Deputy Superintendents of Census Operations also conducted intensive inspections.

Tabulation

On completion of the survey the slips were sorted and tabulated in the respective

regional tabulation offices. The final tables were prepared in the Central Tabulation Unit and sent to the Registrar General. The various tables showing the measures of fertility used for the analysis of the data were prepared in the vital statistics section of the Registrar General's Office and circulated to the respective superintendents of Census operations. The tables have been prepared separately for rural and urban areas.

Schedules and Concepts

Two schedules were used in this survey viz. the household schedule and the fertility slip. Information about each household in the sample blocks was collected in the household schedule and the particulars of ever-married females in the household were recorded in the individual fertility slip. Besides providing some general information about the composition of the household and economic activity of its members, the household schedule was useful to check whether the fertility slips were filled or not in respect of all ever-married females and to rectify to some extent misreporting of age, if any.

The household schedule has three sections. The first section contains particulars like relationship to the head of the household, age, sex and marital status of all persons in the household (including visitors) present at the time of the visit of the investigator. Section 2 ascertains whether there is any woman in the household who is married more than once. Section 3 of the household schedule contains a series of questions meant to elicit information on whether the members of the household aged 10 and above were working or not.

For this survey a person is considered as working if his activity brings him or his family earnings in cash or kind. Such earnings should arise from repairs done or goods produced, services rendered or sale of own or somebody else's produce including manufactured goods. The earnings arising from interest, dividend, pension, rent, royalty and begging are not considered. A person engaged in non-seasonal activity was taken as working if he was at work on any day during the preceding 15 days. In the case of seasonal work like cultivation, live-stock rearing, dairying, household industry etc. in order to be considered as working, a person should have had some regular work of more than one hour a day throughout most of the reference period of 15 days. Seasonal work is one which can be carried on only during certain periods of seasons of the year and not throughout the year.

A separate fertility slip was used to fill up particulars relating to each ever-married female in the household. The information gathered are religion, educational standard, age at marriage, age at effective marriage, duration of married life, marital status, births occurred during an year preceding the survey, the age of each living child, the age at death and the number of years elapsed since death of children who are dead and the educational standard, nature of work and nature of industry of the husband. In the case of females, married more than once, the number of times they married and the duration of the current marriage also have been recorded.

Births during a period of one year were noted. Instead of specifying a period of one year between two calendar dates, the approach was to ascertain the number of births which occurred during the interval between the two immediately preceding consecutive occurrences of the most important festival of the region. While in most of the States Deepavali was the festival used, Onam, the State festival was used in Kerala. Information on live-births as well as still-births were collected. The definition of live-birth recommended by international agencies in 1950 is as follows :—

"Live-birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached ; each product of such a birth is considered live born."

For recording the marital status of the females the same definition as was adopted in the general Census was followed in this survey also. The information on age as well as duration of married life was recorded in completed years. In the case of females, married only once, the duration of married life was indirectly obtained from the present age and the age at effective marriage.

The two most important factors which influence a woman's reproductive behaviour is the attained age and duration of married life, and hence arises the difficulty in interpreting the results based on average number of children born to women married more than once with clear intervals between successive marriages and to widowed or divorced women even though married only once. Hence in order to study the fertility pattern of the married females they are classified into four groups and the results were tabulated separately for each of these groups. The four groups of women are :

A—Women married only once and still in the married state

B—Women married only once but now widowed or divorced

C—Women married more than once and still in the married state

D—Women married more than once but now widowed or divorced.

Considering the small number of females in the groups B, C and D detailed tabulation has been done only in the case of the slips of group A. Five tables have been prepared from the slips of group A and two tables each from the other three groups. Females of each group have been cross-classified according to the number of children born and the age of the mother. In the case of females of groups A and C the births during the last one year have been tabulated by age of mother. Detailed tabulations for different characteristics such as the woman's religion and education, the husband's education, nature of work and industry and duration of married life etc. were done only for group A.

Specimens of the household schedule and fertility slip and instructions for filling the schedules are given in Appendix I to this report. A few tables showing some of the fertility measures by different characteristics and the State level abstracts prepared from household schedule are given in Appendix II.

CHAPTER I

AGE, MARITAL STATUS AND BIRTHS

The pattern of fertility depends on many factors, demographic, social and cultural. Societies which frown upon divorce and condemn remarriage will have a fertility pattern different from that of societies in which divorce and remarriage are common events. The age-structure of the women and their composition with respect to marital status are important determinants of fertility. Age at marriage assumes significance, because the more advanced it is, the less the duration of exposure. So too, the proportion married at any age and the proportion single, widowed or divorced are the products of varying marriage experiences, and they influence the course of fertility differently. The following paragraphs attempt an analysis of some of these aspects.

Census and Survey results—A Comparison

1.2 Before proceeding with a detailed analysis of the survey results, it is useful to compare the information on marital status obtained from the survey, with similar data collected as on census date in the general census of population in 1961. Conceptually the groups married, widowed, divorced and separated together, of the census, correspond to the ever-married females of the survey and the married females of the census correspond to the females of groups A and C in the survey, i. e. women married only once and still in the married state and women married more than once and still in married state. According to the census, 49.05 per cent of the females in the rural areas and 48.22 per cent of the females in the urban areas are either married, widowed, divorced or separated. Against this the results obtained from the survey show that 48.85 per cent of the rural women and 48.03 per cent of the urban women are ever-married. Those who were in the married state at the time of census constituted 36.73 per cent and 34.99 per cent respectively of the females in the rural and urban areas while according to the survey the corresponding figures are 36.53 per cent in the rural and 35.20 per cent in the urban areas. There is thus no significant difference between the survey and census figures.

Distribution of Women by attained Age

1.3 The distribution of ever-married females by age-groups is presented in the following table.

Table 1.1

DISTRIBUTION OF EVER-MARRIED WOMEN BY ATTAINED AGE (KERALA, 1962)

Attained age (Years)	Total number of women	
	Rural	Urban
1	2	3
12 and below	12	3
	(N)	(N)
13—17	669	157
	(2.0)	(1.4)
18—22	3,590	1,119
	(10.6)	(10.0)
23—27	4,985	1,660
	(14.7)	(14.8)
28—32	5,095	1,756
	(15.0)	(15.7)
33—37	3,863	1,248
	(11.4)	(11.2)
38—42	3,542	1,253
	(10.4)	(11.2)
43—47	2,686	872
	(7.9)	(7.8)
48+	9,483	3,128
	(28.0)	(27.9)
Total	33,925	11,196
	(100.0)	(100.0)

Note: Figures in brackets represent the percentages to total ever-married women.
N-Negligible.

The age distributions of ever-married females in the rural and urban areas do not show any significant difference. In both cases more than a quarter of the ever-married females are aged 48 and above and hence ineffective so far as future fertility is concerned. Excluding this group, the largest number of ever-married females in rural as well as urban areas belong to the age-group 28–32. The two age-groups 23–27 and 28–32 together claim 29.7 and 30.5 per cent respectively of the rural and urban ever-married females. In both rural and urban areas there are a few married girls below the age 12 though they constitute only a negligible proportion of the total ever-married females. It cannot be said whether these are instances of misreporting of age or whether marriage at tender ages still prevails in certain parts of the State. The latter possibility cannot also be completely ruled out.

Distribution of ever-married Women by Status

1.4 The distribution of ever-married females according to status is given in the following table.

Table 1.2

DISTRIBUTION OF WOMEN BY MARITAL STATUS (KERALA, 1962)

Marital Status	Total number of women	
	Rural	Urban
1	2	3
Women married only once and still in married state	24,057 (70.9)	7,872 (70.3)
Women married only once but now widowed or divorced	7,928 (23.4)	2,806 (25.1)
Women married more than once and still in married state	1,314 (3.9)	334 (3.0)
Women married more than once but now widowed or divorced	626 (1.8)	184 (1.6)
Total	33,925 (100.0)	11,196 (100.0)

Note: Figures in brackets represent the percentage to total women

In both rural and urban areas more than 70 per cent of the ever-married females are still in married state having married only once. There is no significant difference between rural and urban areas in the distribution of females by marital status. But the proportion of females married only once but now widowed or divorced is slightly higher in the urban areas. This may be due to the comparatively higher incidence of remarriages in the rural areas rather than due to any significant rural-urban differential in the mortality of the married females. The slightly higher proportion of remarried females who are still in the married state in the rural areas and the almost equal proportions of women married more than once but now widowed or divorced in the two areas, to some extent, support the above contention.

Widowhood and Remarriage

1.5 Incidence of widowhood is a factor influencing fertility. This is more so in a country where social customs do not approve of the children born outside wedlock. If, however, remarriages become more and more common, the retarding effect on fertility brought about by the high proportion of widows in the population will be offset to a large extent. A study of the proportions of widowed and remarried females, thus, assumes importance.

1.6 The available data do not permit an analysis of the incidence of widowhood. But, about 30 per cent of the ever-married females in both rural and urban areas are not having their first husbands now. Some of them are in the married state now. The rest are without husbands either widowed or divorced. But a fairly satisfactory measure of the extent of remarriage in the society is provided by the ratio of women married more than once, to all ever-married women who are at present not having their first husbands. Thus, 19.66 per cent of the rural women who have lost their husbands, either by death, divorce or

separation, are married again, the corresponding percentage in the urban areas being 15.58 per cent. These figures cannot be considered very small. Thus, remarriage is certainly not very uncommon in Kerala. Its incidence is higher in the rural areas.

1.7 Another way of looking at the problem is to examine the distribution of ever-married women by number of times married. The relevant figures are given in the following table.

Table 1.3

PERCENTAGE DISTRIBUTION OF WOMEN BY NUMBER OF TIMES MARRIED (KERALA, 1962)

Attained age (years)	Distribution of women by number of times married									
	Rural					Urban				
	Once	Twice	Thrice	Four times or more	Total	Once	Twice	Thrice	Four times or more	Total
1	2	3	4	5	6	7	8	9	10	11
All ages	**94.2 (31,973)**	**4.6 (1,550)**	**0.9 (300)**	**0.3 (90)**	**100.0 (33,913)**	**95.4 (10,675)**	**3.6 (407)**	**0.7 (80)**	**0.3 (31)**	**100.0 (11,193)**
13—17	99.0 (662)	1.0 (7)	... (...)	... (...)	100.0 (669)	98.1 (154)	1.9 (3)	... (...)	... (...)	100.0 (157)
18—22	98.1 (3,522)	1.5 (54)	0.3 (12)	0.1 (2)	100.0 (3,590)	98 2 (1,099)	1.7 (19)	0.1 (1)	(...) (...)	100.0 (1,119)
23—27	96.6 (4,814)	2.8 (137)	0.5 (27)	0.1 (7)	100.0 (4,985)	97.1 (1,612)	2.3 (38)	0 5 (8)	0.1 (2)	100.0 (1,660)
28—32	94.3 (4,807)	4.8 (244)	0.7 (36)	0.2 (8)	100.0 (5,095)	95.8 (1,684)	3.5 (61)	0.5 (8)	0.2 (3)	100.0 (1,756)
33—37	93.4 (3,611)	5.5 (213)	0.9 (33)	0.2 (6)	100.0 (3,863)	95.1 (1,187)	3.8 (47)	0.7 (9)	0.4 (5)	100.0 (1,248)
38—42	92.0 (3,259)	6.7 (236)	1.0 (35)	0.3 (12)	100.0 (3,542)	93.0 (1,165)	5.1 (64)	1.6 (20)	0.3 (4)	100.0 (1,253)
43—47	91.9 (2,468)	6.3 (169)	1.2 (33)	0.6 (16)	100.0 (2,686)	94.5 (824)	4.1 (3.6)	1.4 (12)	... (...)	100.0 (872)
48 +	93.1 (8,830)	5.2 (490)	1.3 (124)	0.4 (39)	100.0 (9,483)	94.4 (2,950)	4.4 (139)	0.7 (22)	0.5 (17)	100.0 (3,128)

Notes: 1. Actual numbers are given in brackets
2. Females below age 13 have been excluded

Among ever-married females of all age-groups together, 5.8 per cent in the rural and 4.6 per cent in the urban areas are married more than once. But females who marry more than twice constitute only a very small proportion in both rural and urban areas. The highest proportion of females who have married more than once is in the age-group 43-47 in rural areas and in the age-group 38-42 in the urban areas. In the age-group 13-17 the proportion of females who are married only once is slightly higher in the rural areas than in the urban areas. The rural and urban proportions are almost equal in the next higher age-group. In all the other age-groups the proportion in rural areas is lower than that in the urban areas. The proportion of females married more than once increases generally with increasing age. The stray cases of exceptions observed cannot be considered significant in the results of a sample study.

1.8 For purposes of comparison the percentage distribution of ever-married women by number of times married in the various zones of Mysore State in 1951-52 obtained from 'The Mysore Population Study' is given below.[1]

Table 1.4

DISTRIBUTION OF EVER-MARRIED WOMEN BY NUMBER OF TIMES MARRIED

Zone	Number of ever-married women in the sample	Per cent of women married once	married twice	mrried three or more times
1	2	3	4	5
Zone I (Rural Hills*)	1,345	97.2	2.6	0.2
Zone II (Rural Hills**)	1,924	95.5	4.3	0.2
Zone III (Rural Plains)	3,090	98.4	1.6	...
Towns	1,611	98.7	1.3	...
Bangalore City total	6,335	99.0	1.0	0.0

* With anti-malarial operations
** Without anti-malarial operations

1— Table 9.21—page 106—The Mysore Population Study—Population Studies No. 34-ST/SOA/Series A-United Nations, Department of Economics and Social Affairs.

Excepting the zone II (Rural Hills) everywhere else the proportion of females married more than once is very small. Comparing the rates of remarriages in other zones the rates obtained in Kerala is found to be higher. But the fact that there is a gap of about ten years between the two surveys cannot be ignored while comparing the two sets of figures.

1.9 It has already been stated that females who are married only once and still in the married state constitute a large majority among ever-married females and the fertility pattern is mainly determined by this group. Hence the detailed analysis of the fertility pattern by age at marriage, duration of married life etc. is made only in respect of such females. As the number of other types of females is very small the fertility performance of the females who are married only once and still in the married state may be assumed to give a representative picture of the fertility pattern of the females of the State as a whole. In the remaining portions of this report the females who are married only once and still in married state alone are considered unless otherwise specifically mentioned.

Age at Marriage and Duration of Married Life

1.10 The following two tables give the per-centage distribution of women married only once and still in the married state by age at marriage and duration of married life.

Table 1.5

PERCENTAGE DISTRIBUTION OF WOMEN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE (KERALA, 1962)

Marriage duration (Years)	Rural Age at marriage (Years) Below 18	18—22	23+	All ages	Urban Age at marriage (Years) Below 18	18—22	23 +	All ages
1	2	3	4	5	6	7	8	9
0	36.9	51.9	11.2	100.0	24.5	55.4	20.1	100.0
1—4	42.1	48.0	9.9	100.0	37.9	49.1	13.0	100.0
5—9	47.7	44.7	7.6	100.0	45.4	46.9	7.7	100.0
10—14	58.4	36.3	5.3	100.0	57.9	35.5	6.6	100.0
15—29	61.2	35.1	3.7	100.0	61.9	32.8	5.3	100.0
30 +	71.1	26.8	2.1	100.0	73.8	23.9	2.3	100.0
All durations	56.8	37 8	5.4	100.0	55.9	37.2	6.9	100.0

Table 1.6

PERCENTAGE DISTRIBUTION OF WOMEN BY MARRIAGE DURATION FOR EACH AGE-AT-MARRIAGE-GROUP (KERALA, 1962)

Marriage duration (Years)	Number of women		Rural Age at marriage				Urban Age at marriage			
	Rural	Urban	Below 18	18—22	23+	All ages	Below 18	18—22	23+	All ages
1	2	3	4	5	6	7	8	9	10	11
All durations	**24,057**	**7,872**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
0	453	139	1.2	2.6	3.9	1.9	0.8	2.6	5 2	1.7
1—4	3,649	1,166	11.2	19.3	27.8	15.1	10.0	19.6	27.8	14 8
5—9	3,991	1,424	13.9	19.7	23.2	16.6	14.7	22.8	20.3	18 1
10—14	4,153	1,328	17.8	16.6	16.8	17.3	17.5	16.1	16.0	16.9
15—29	7,624	2,588	34.1	29.5	21.6	31.7	36.4	28.9	25.5	32.9
30 +	4,187	1,227	21.8	12.3	6.7	17.4	20.6	10.0	5.2	15.6

Majority of females whose duration of married life is less than one year got married between ages 18 and 22 in both rural and urban areas. In the urban areas this proportion is higher than in the rural areas. At the same time the proportion of females who got married before the age of 18 is smaller in urban areas than in rural areas and the proportion who married after age 22 is higher in urban areas than in rural areas. As the duration of married life increases the proportion of females married in the age-groups 18–22 and 23+ decreases whereas the proportion marrying before age 18 increases in both rural and urban areas. It is also found that a large proportion of females who got married after age 22 belong to the recent marriage cohorts and their proportions are small in older marriage cohorts. Also among those who got married below age 18, the recent marriage cohorts claim only comparatively smaller proportion than the older cohorts. This clearly indicates that in recent times there is a tendency to marry at higher ages compared to the practice in past. In other words, the practice of getting married at very young ages seems to have undergone a change in recent years. It is interesting to observe that the percentage of females who got married below age 18 is more in urban areas than in rural areas in the case of females whose duration of married life is 15 years or more whereas in the case of females with marriage duration less than 15 years the proportion in rural areas is greater than that of urban areas. This may be taken to indicate that the change to higher age at marriage has taken place at a more intensive rate in urban areas than in rural areas. However, in the absence of reliable data relating to the effect of migration and urbanisation, the above observations should be taken only with reservation.

Average Age at Marriage

1.11 The age at which marriage occurs has a considerable influence on fertility. This may operate in several ways; earlier marriages provide increased opportunities for producing and rearing children; those who want to have a large family may marry early in order to do so; further, those who are the most fecund may also be those who marry early in life. The average age at

marriage of females of marriage duration less than 5 years is 18.8 in rural areas and 19.2 in urban areas whereas the corrresponding figures in the case of females of marriage duration 10—14 years are 17.6 and 17.7 respectively. The average age at marriage of females of marriage duration 0–4 years is higher than those of marriage duration 10–14 years in both rural and urban areas indicating that there is a tendency in recent times for females to get married late. The average age at marriage in the rural and urban areas is almost the same in the case of females of marriage duration group 10–14 years. The median age at marriage of females of marriage duration 0–4 years is 18.6 and 19.0 years in the rural and urban areas respectively. The inter-quartile range for the above group of females is 2 0 in the rural areas and 2.1 in the urban areas. The average age at marriage, according to the Sample Census 1960–61, for currently married females of all marriage durations comes to 17.7 for both rural and urban areas*.

1.12 The median age at marriage for all-India is 16.1 and 17.1 years respectively in the rural and urban areas.[1] The median age of bride at marriage in some other countries of the world around the period 1946–48 given below[2] will help to get an idea of the comparative position of Kerala in this respect.

Name of country	Median age of bride at marriage
Switzerland	25.5
Sweden	24.8
England and Wales	24.0
Italy	23.5
France	23.0
Australia	23.0
Canada	23.0
New Zealand	22.8
Japan	22.2
Egypt	21.5

It may be seen from the above that the median age at marriage in Kerala is higher than that of all-India whereas it is very much lower than that of the other countries mentioned above.

Current Level of Births by Attained Age of Mothers

1.13 The following table gives the frequency distribution of births by attained age of mothers and also the births arising from multiple births occurred during twelve months preceding the Survey. All females who are married once or more than once but still in the married state are considered here.

Table 1.7

CONTRIBUTION OF BIRTHS ARISING OUT OF MULTIPLE BIRTHS TO TOTAL BIRTHS (CURRENT LEVEL) (KERALA, 1962)

Attained age of mother (Years)	Total births		Births arising from multiple births*	
	Rural	Urban	Rural	Urban
1	2	3	4	5
13—17	51	14	...	...
18—22	937	263	4	2
23—27	1,465	470	26	8
28—32	1,287	369	24	4
33–37	757	213	14	4
38—42	350	99	4	2
43—47	81	13	2	...
48 +	11	5	...	...
All ages	4,939	1,446	74	20

* All the multiple births reported are twin births.

* Paper No. 31, The Fertility Pattern of the Women in Kerala issued by the Demographic Research Centre, Bureau of Economics and Statistics, Kerala, Trivandrum.

1 Vital Statistics, 1961 Table 25 (A) p.XLV issued by the Registrar General of India.

2 World Population and Production Trends and Outlook by W. S. Woytinsky and E. S. Woytinsky Table 101, p.194.

The maximum number of births is contributed by females in the age-group 23–27 in both rural and urban areas during one year preceding the survey. The females of the next higher age-group come next in the contribution of births during last year. The above pattern is followed in the case of multiple births also. It may be noted in this connection that all the multiple births reported during one year preceding the Survey were only twin births.

1.14 The following table gives the percentage distribution of mothers and number of births by attained age in the rural and urban areas. This relate to all females still in married state having married once or more times. 55.8 per cent of births in rural areas and 58.0 per cent of births in urban areas are contributed by females of age-group 23–32. The age-group 23–27 which claims 18 2 per cent of females contributes the maximum number of births (29.7 %) in the rural areas and the same age-group claiming 19.2 per cent of females in the urban areas contributes the maximum number of births (32.5 %). The next higher age-group viz. 28–32 which claims 18.0 per cent of females in the rural areas contributes 26.1 per cent of the total births during the last one year. In the urban areas, the percentage of females in the above age-group is 19.2 percent and they contribute 25.5 per cent of the total births. It is very interesting to note that births have occurred to females in the age-group 48 and over both in rural and urban areas though their number is very small. Perhaps some of these may be cases of misreporting of age of mothers.

Table 1.8

PERCENTAGE DISTRIBUTION OF MOTHERS AND BIRTHS BY ATTAINED AGE (KERALA 1962)

Attained age of mother (Years)	Rural		Urban	
	Percentage of females	Percentage of births	Percentage of females	Percentage of births
1	2	3	4	5
All ages	100.0	100.0	100.0	100.0
Below 12	N	...	N	...
13—17	2.5	1.0	1.8	1.0
18–22	13.4	19.0	13.1	18.2
23—27	18.2	29.7	19.2	32.5
28—32	18.0	26.1	19.2	25.5
33–37	13.1	15.3	13.0	14.7
38—42	11 0	7.1	11.8	6.9
43–47	7.7	1.6	7.5	0.9
48 +	16.1	0.2	14.4	0.3

N– Negligible

Still-births

1.15 The study of infantile mortality is often associated with the related topics of abortions and still-births, and these three are sometimes grouped together under the expression 'reproductive wastage.' Because of the difficulties in measuring important segments of this wastage, especially foetal deaths, no adequate statistical expression of its magnitude is available in any country but it would appear that, in the world as a whole, atleast one-third of each new generation is lost before or shortly after the time of birth. From this survey it was not possible to get information about infantile mortality. Data regarding still-births and abortions have, however, been collected. In the survey still-births have been classified into two groups–still-births after six months of gestation and still-births within six months of gestation. It may be considered that still-births within six months of gestation are abortions. The following table gives the still-birth rates per 100 total births (live and still) by attained age of mothers who are still in married state having married once or more.

Table 1.9

STILL-BIRTH RATES PER 100 TOTAL BIRTHS (LIVE AND STILL) (KERALA 1962)

Attained age of mother (Years)	Still-birth rate			
	After six months of gestation		Within six months of gestation	
	Rural	Urban	Rural	Urban
1	2	3	4	5
All ages	**2.6**	**2.5**	**1.6**	**1.7**
13—17	6.8	...	6.8	...
18—22	2.7	2.2	1.4	1.5
23—27	2.2	1.9	1.2	1.2
28—32	2.0	4.1	1.5	2.0
33—37	3.2	1.8	1.3	1.8
38—42	3.5	2.0	2.7	1.0
43—47	4.4	6.3	5.6	12.5
48 +	...	...	...	...

CHAPTER 2

FERTILITY PERFORMANCE

SECTION 1

Current Fertility

Fertility is usually studied by computing various fertility rates. These rates are computed by relating the number of births occurring to a given group of the population to the total number of persons in that group. Current fertility may be studied with reference to births during last 12 months, while life-time fertility is obtained by considering the number of children born to women of completed fertility or specified duration of married life. The latter does not reflect well recent changes in fertility and is determined mainly by past fertility. In a community where fertility has not changed much, life-time fertility is useful for studying the differential pattern of various groups.

2.2 Current fertility may be measured by crude birth rate or age-specific fertility rates. Crude birth rate may be defined as the number of live births occurred in a year per 1,000 of mid-year total population. According to the Survey the crude birth-rate in the rural and urban areas of the State comes to 36.2 and 31.3 respectively per 1,000 population as against a computed birth-rate of 38.9[1] for the State as a whole for the period 1951–60. In the Sample Census conducted during 1952–'53 in the Travancore-Cochin area the birth rates obtained were 40.9 and 34.1 in the rural and urban areas respectively. This compared well with the computed rate of 37.4 for the decade 1941–'50. In both these investigations it is observed that the birth rate in rural areas is more than that in urban areas. This may be the effect of various factors. Some of the females living in urban areas may go to their parents or near relatives residing in rural areas at the time of delivery. This is counter-balanced to some extent by females going to towns in search of better medical facilities. It has already been noted that there is no significant difference between the proportion of married females in the rural and urban areas though the rural proportion is slightly higher than the urban proportion. Further, the urban population may be comparatively more conscious about methods of family limitation and this may be another factor responsible for the low birth-rate in urban areas compared to the rural areas.

Marital Fertility Rates

2.3 The rural-urban difference is also discernible in the marital fertility rate which is defined as the number of live-births during one year per 1,000 of currently married females in the child bearing age-group. The child bearing age-group is taken as 13–47.

2.4 The marital fertility rate is very high in rural areas compared to urban areas, the rates being 231.5 and 205.2. This also holds good separately for each group of married females i. e. females married only once and still in the married state and

[1]All India Seminar on Population, 12–14 March 1964—State Growth Rates and their Components by S. P. Jain.

females married more than once and still in the married state. The marital fertility rate in the case of remarried females (289.7 for rural areas and 264.2 for urban areas) is found to be higher than that among females married only once (228.5 for rural areas and 202.9 for urban areas). It may, however, be pointed out that the number of remarried females is very small compared to the number of females married only once. The marital fertility rates in the age-group 15–44 as obtained from the Sample Census of 1952–'53 in the Travancore-Cochin area are 252.2 and 221.5 respectively for rural and urban areas. The higher figures in the 1952–'53 survey compared to the figures of 1962 may be attributed to the difference in the age-groups considered in these two years. In the 1962 survey, the child bearing age-group is taken as 13–47 which includes less fertile groups viz. 13–14 and 45–47. This makes the rate to be reduced as the denominator will be increased without any considerable increase in the numerator. Moreover, there is also difference in the area covered in these two surveys. It is, therefore, not possible to know from these figures whether there is any change in the marital fertility rate between the two periods. But it has already been noticed that there is an increase in the computed birth-rate.

Marital Fertility by Different Characteristics

2.5 The following table gives the marital fertility rates of females (married only once) by different characteristics such as religion, education, husband's education, nature of work and nature of industry for the rural and urban areas of the State.

Table 2.1

MARITAL FERTILITY RATES BY CHARACTERISTICS (WOMEN BETWEEN AGES 13 AND 47) (KERALA, 1962)

Characteristics	Rural		Urban	
	No. of women	Marital fertility rates	No. of women	Marital fertility rates
1	2	3	4	5
I. Religion				
Hindus	13,174	227.6	4,105	198.5
Muslims	3,365	209.2	1,448	186.5
Christians	3,592	250 8	1,203	237.7
Tribes	116	198.3	...	...
Others	4	*	...	...
Buddhists	...	...	2	*
II. Women's Education				
Formal schooling but high school or equivalent examination not passed	5,790	251.6	2,514	229.9
High school or equivalent examination	396	287.9	346	185.0
Graduated from college	26	230.8	53	†56.6
Others comprising just literates and uneducated	14,039	217.3	3,845	188.8

*Not calculated since the number of women in the sample is below 25

†Date appear to be defective

Table 2.1—*concld.*

MARITAL FERTILITY RATES BY CHARACTERISTICS (WOMEN BETWEEN AGES 13 AND 47) (KERALA, 1962)

Characteristics	Rural		Urban	
	No. of women	Marital fertility rates	No. of women	Marital fertility rates
1	2	3	4	5
III. Husband's Education				
Formal schooling but high school or equivalent examination not passed	7,636	242.3	3,158	225.8
High school or equivalent examination	970	230.9	706	201.1
Graduated from college	147	224.5	234	162.4
Others comprising just literates and uneducated	11,498	219.2	2,660	179.7
IV. Nature of Work				
Technical, professional and related workers	829	217.1	403	166.3
Administrative, executive and managerial workers	878	246.0	497	217.3
Clerical and related workers	456	208.3	411	189.8
Sales workers	1,506	243.7	873	203.9
Farmers	5,408	230.4	440	181.8
Hunters, loggers and related workers	584	224.3	119	243.7
Production process workers and craftsmen	2,535	250.9	1,500	218.0
Unskilled workers	4,882	223.7	1,418	210.2
V. Nature of Industry				
Agriculture where occupation is farming	5,408	230.4	440	181.8
Agriculture where occupation is other than farming	1,717	239.4	201	233.8
Quarrying and mining	300	236.7	25	160.0
Manufacture	2,516	240.5	1,639	217.8
Building and construction	471	280.3	168	220.2
Commerce	1,678	248.5	1,119	208.2
Transport, storage and communications	576	296.9	606	222.8
Services	4,348	211.1	1,506	183.3

In the case of each religious group, viz. Hindus, Muslims and Christians the marital fertility rate is higher in rural areas than in urban areas. Among the three major religions, the marital fertility is highest among Christians and least among Muslims in both rural and urban areas. The small marital fertility rate of Tribes in rural areas may, perhaps, be due to the incomplete nature of returns. Examining the proportion of currently married females in the age-group 13-47 to total currently married females it may be observed that the marital fertility rates of various religious groups are inversely varying with these proportions in both rural and urban areas. In the rural areas the proportions among Hindus, Muslims and Christians come to 84.04, 89.42 and 80.07 per cent respectively and in urban areas the corresponding proportions are 85.91, 90.05 and 81.12 per cent respectively. The above proportion is highest among Muslims and least among Christians. Still, the marital fertility rate is found to be highest among Christians and lowest among Muslims.

Effect of Education

2.6 The marital fertility rate is found to be lowest among females who are just literates and uneducated in rural areas and among females having high school or equivalent education in urban areas. In urban areas, the marital fertility rate among females who are just literates and uneducated is also very low. In the rural areas the highest marital fertility is found among those having high school education. Though there is a considerable decline in the marital fertility rate of graduates from that of high school educated girls the above data, on the whole, do not indicate any substantial reduction in fertility as a result of higher education. But there is reason to suspect that high school education in the case of urban females has some effect on the marital fertility. As the number of females in the college educated group is very small no definite conclusion can be arrived at regarding college education.

2.7 As regards husband's education also the lowest marital fertility is among the wives of just literates and uneducated in the rural areas. In urban areas, only the females whose husbands are graduates have a lower marital fertility rate than the wives of the just literate and uneducated. In both rural and urban areas it may be found that as educational level of husband rises after formal schooling there is a corresponding decline in marital fertility. This decline is more pronounced in urban areas. This indicates that the higher education among husbands is having some effect in reducing fertility at least in urban areas.

2.8 It is interesting to note that the survey data do not seem to corroborate the common belief of highest fertility among just literates and uneducated as far as Kerala is concerned, at least in respect of current fertility. It is worthwhile examining the reasons for this low fertility among illiterates. There is a possibility that while reporting births some of these couples might not have taken into consideration the infant deaths which has resulted in differential under enumeration of events by education groups. This conclusion, however, requires detailed investigation.

Effect of Occupation and Industry

2.9 Among females of different nature of work, the marital fertility rate is highest for production process workers and craftsmen in rural areas and for hunters, loggers and related workers in urban areas. The rate is lowest among clerical and related workers in rural areas and among technical, professional and related workers in urban areas. In all cases except among hunters, loggers and related workers the rates in rural areas are higher than those in urban areas.

2.10 Considering the nature of industry it is seen that female workers engaged in transport, storage and communications have the highest marital fertility rate in rural areas and those engaged in agriculture where occupation is other than farming have the highest rate in urban areas. The lowest rate is among those engaged in services in rural areas and among those engaged in quarrying and mining in urban areas. Among females engaged in each of the different industries the rates in rural areas are higher than those in urban areas. The variation in marital fertility rates of females according to nature of work and nature of industry is more in urban areas than in rural areas.

Age-specific Marital Fertility Rates

2.11 Age-specific marital fertility rates help to study the fertility pattern of females of different age-groups. The marital fertility rates of different age-groups for the rural and urban areas of the State are given below.

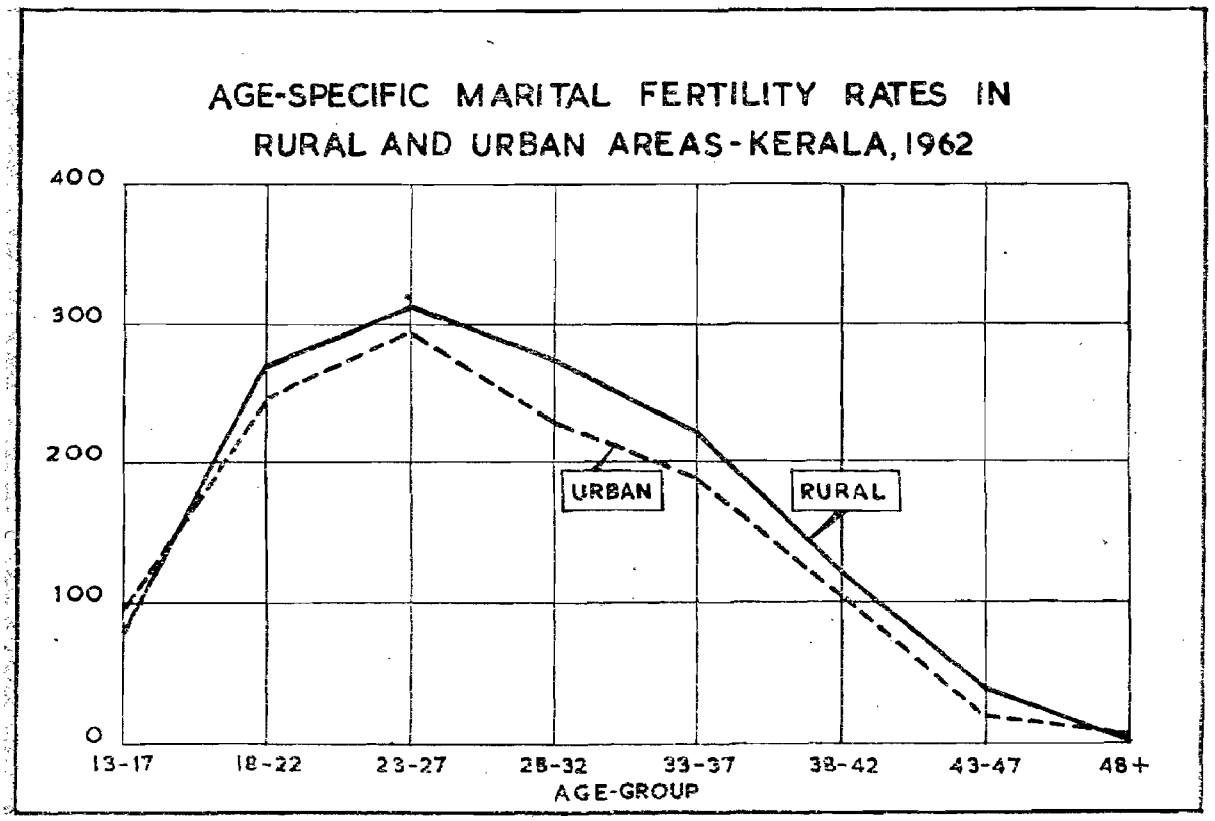
Table 2.2

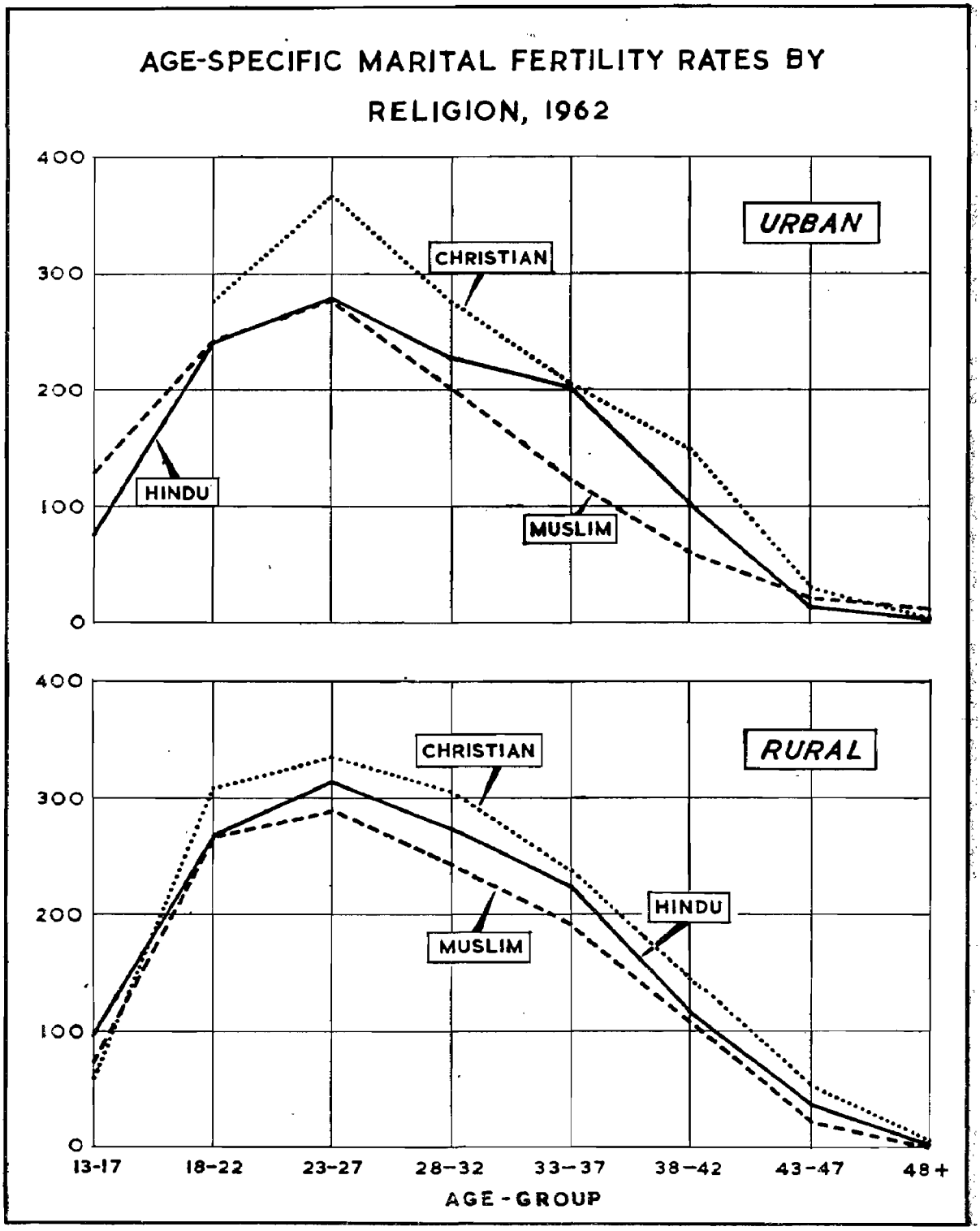
AGE-SPECIFIC MARITAL FERTILITY RATES (KERALA, 1962)

Age-group (years)	Marital fertility rate	
	Rural	Urban
1	2	3
13—17	82.3	95.2
18—22	272.6	245.3
23—27	314.0	293.4
28—32	274.8	230.1
33—37	221.9	189.8
38—42	121.5	105.1
43—47	39.2	18.9
48 and over	2.9	4.5

In both rural and urban areas the marital fertility rate is highest in the case of females of age-group 23–27. The pattern observed in rural and urban areas is that the marital fertility rate increases from among young females, reaches a maximum for females of age-group 23–27 and declines as age advances. Excepting the age-groups 13–17 and 48 +, the marital fertility rates of all other age-groups in the urban areas are lower than those in the rural areas, while the age-groups 13–17 and 48 + reveal a reverse trend.

2.12 The following chart shows the age-specific marital fertility rates in rural and urban areas.




AGE-SPECIFIC MARITAL FERTILITY RATES BY RELIGION, 1962
400
300
200
100
0
URBAN
CHRISTIAN
HINDU
MUSLIM
400
300
200
100
0
RURAL
CHRISTIAN
HINDU
MUSLIM
13-17
18-22
23-27
28-32
33-37
38-42
43-47
48+
AGE-GROUP

2.13 In the rural areas the age-specific marital fertility rates are found to be highest among Christians and lowest among Muslims in all age-groups except the age-group 13-17 where this rate is lowest among Christians and highest among Hindus. In the urban areas the number of Christian females in the age-group 13-17 is very small in the sample and hence the rate is not computed. In the age-group 18-22 and 43-47 Hindus have the lowest marital fertility and Christians the highest and in the age-group 48 + Muslims have the highest marital fertility and Hindus the lowest. In all other age-groups the same pattern as in the rural areas is observed. Two important features observed in the fertility rates in urban areas are the comparatively very high fertility among Christians and the rapid decline in fertility after attaining the maximum among Muslims. Like the general pattern, the age-specific fertility rate is highest in the case of females of the age-group 23-27 in the different religious groups. The chart facing this page illustrates the above points.

2.14 The age-specific marital fertility rates according to the other characteristics like, woman's education, husband's education, nature of work and industry also follow, more or less, the general trend. Details are given in Table (1) of Appendix II.

2.15 If the fertility rates are computed in respect of all married women of age-group 13-47 it comes to 231.5 for rural areas and 205.2 for urban areas of the State. The fertility rate of married women in the age-group 12-46 in all-India rural as obtained from the N. S. S. seventh round (combined sample) comes to only 171. This shows that the fertility in Kerala is very much higher than that in all-India even after giving allowance for the difference in the age-groups used for the computation of these rates. The fertility rate of married women by age-group in the rural areas of India is given below for comparison.

Table 2.3

FERTILITY RATES OF MARRIED WOMEN

Age-group (years)	+All-India rural fertility rate	Age group (years)	Keral State* rural fertility rate
1	2	3	4
12-16	60	13-17	82.3
17-21	233	18-22	272.6
22-26	233	23-27	314.0
27-31	206	28-32	274 8
32-36	142	33-37	221.9
37-41	108	38-42	121.5
42-46	59	43-47	39.2
12-46	171	13-47	228.5

+ N. S. S. Report No 54-Vital Rates (seventh round) Table 4.7-page 26.

* These figures relate to females married only once and still in married state at the time of the survey in 1962.

SECTION 2

Life-time Fertility

2.16 This section attempts an analysis of life-time fertility. As a measure of life-time fertility the average number of children born to women is used. Average number of children born may be examined for females of incomplete fertility and females of completed fertility. The average number of children born, as a measure of fertility, is meaningful only in respect of females of completed fertility. But the average number of children born on the basis of incomplete fertility brings out the family building patterns by age and duration of marriage for different groups of women.

Average Number of Children Born Per Currently Married Women–Incomplete Fertility

2.17 As mentioned earlier, the two most important factors which influence a woman's reproductive behaviour is attained age and duration of married life and hence, the results are examined by these characteristics and interpreted accordingly. The tables given below present the relevant data in respect of females married only once and still in the married state.

Table 2.4

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY ATTAINED AGE (KERALA, 1962)

Attained age of mother (years)	Rural		Urban	
	No. of females	Average no. of children born per woman	No. of females	Average no. of children born per woman
1	2	3	4	5
13–17	620	0·2	147	0.2
18–22	3,342	1.0	1,056	1.1
23–27	4,472	2.3	1,534	2.3
28–32	4,312	3.8	1,517	3.8
33–37	3,119	4.9	1,017	4.9
38–42	2,577	5.6	904	5.5
43–47	1,809	6.0	583	5 5
48 +	3,796	6.0	1,111	5.7
All ages	24,047	3.9	7,869	3.8

Table 2.5

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY DURATION OF MARRIED LIFE (KERALA, 1962)

Duration of married life (Years)	Average number of children born per woman	
	Rural	Urban
1	2	3
1–4	0.8	0.9
5–9	2.2	2.3
10–14	3.6	3.7
15–29	5.4	5.3
30 +	6.1	6.0
All durations *	4.0	3.9

* Excludes women of marriage duration below one year.

As is only to be expected the average number of children increases as the attained age of mother increases. But the average is almost static after the age-group 38–42 in rural and 33–37 in urban areas. The average number of children born per woman in both rural and urban areas is almost the same except for females in the age-groups 43–47 and 48+ where the averages are higher in the rural areas.

2.18 Family building is almost complete by the time the females attain age 47 in rural areas and 42 in urban areas. There is not much difference in the pace of family building between rural and urban areas upto this age.

2.19 Though there is no significant difference between the rural and urban areas in the average number of children per woman of different marriage duration groups it may be observed that in the case of females of marriage duration less than 15 years the average is slightly higher in urban areas than in rural areas whereas the position is reversed in the case of females whose marriage duration is 15 years or more.

Average Number of Children per Woman–Change Over a Decade

2.20 In 1951 the average number of childern per currently married mother in the Travancore-Cochin area was 4.3 and 4.2 respectively in the rural and urban areas. The fertility survey of 1962 reveals that the average number of children per married female in Kerala State was 3.9 and 3.8 respectively in rural and urban areas indicating a slight decrease in the average number of children during the decade. It is seen that in 1951 in many age-groups the average number of children in urban areas was higher than in rural areas. The average number of children per mother aged 45 and above was 6.6 and 6.4 for rural and urban areas respectively in 1951 as against 6.0 and 5.7 for mothers aged 48 and above in 1962. The 1951 data seem

to indicate also that family building is continued upto the end of child-bearing age whereas in 1962 this is found to end at a lower age especially in urban areas. The 1951 data are presented below for illustration.

Table 2.6

AVERAGE NUMBER OF CHILDREN BORN PER STILL MARRIED MOTHERS
(Travancore-Cochin Maternity data, 1951)

Age-group of mothers (Years)	Average number of children born	
	Rural	Urban
1	2	3
13-14	1.4	1.0
15-19	1.2	1.2
20-24	1.7	1.9
25-29	2.9	3.0
30-34	4.1	4.2
35-39	5.3	5.4
40-44	6.2	5.9
45 +	6.6	6.4
All ages	4.3	4.2

Average Number of Children Born to Different Groups of Women

2.21 According to the Fertility Survey of 1962, the average number of children born per woman is highest among Christians in both rural and urban areas. There is no significant difference between Hindus and Muslims in this regard though the average is slightly higher in the case of Hindus. Difference between rural and urban areas in the average number of children born is prominent only in the case of Muslim females of marriage duration group 30 years and more.

2.22 Considering females of all durations together, it is seen that the average number of children born per woman decreases with increasing literacy levels both in rural and urban areas. No such definite trend is observed in the individual duration groups. As the sample size of females who have graduated from colleges is very small, the averages by different durations of married life have not been worked out. As regards the husband's education also the average number of children born per woman decreases as the literacy level of husband increases.

2.23 Only slight variations in the average number of children born per woman is observed in the case of females following different nature of work and industry. Averages are not worked out wherever the sample size is very low. The relevant table is given in Appendix II (Table 2).

Effect of Age at Marriage and Duration of Married Life on Number of Children Born

2.24 The average number of children born per woman may further be analysed by age at marriage and duration of married life. The table given below gives the relevant figures.

Table 2.7

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE AND DURATION OF MARRIED LIFE
(KERALA, 1962)

Duration of married life (Years)	Age at marriage (Years)							
	—18		18—22		23+		All ages at marriage	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
1—4	0.7	0.8	0.9	0.9	0.8	0.9	0.8	0.9
5—9	2.2	2.3	2.2	2.3	2.0	2 0	2.2	2.3
10—14	3.7	3.7	3.7	3.7	3.1	3.3	3.6	3.7
15—29	5.5	5.5	5.3	5.1	4.2	3.9	5.4	5.3
30+	6.4	6.2	5.5	5.5	4.7	4.1@	6.1	6.0
All durations*	4.3	4.4	3.5	3.4	2.5	2.5	4.0	3.9

*Excludes women with duration of married life less than one year.
@Based on less than 50 women.

In the marriage duration group 1—4 years, the average number of children born per currently married woman is slightly less in the case of those who married below age 18 than those whose age at marriage was 18 and above. In the next two duration groups the average number of children per woman is the same for age at marriage below 18 and 18—22. But the average is less in the case of those who married at ages 23 and above. In the still higher marriage duration groups the average number of children born to females who married between ages 18 and 22 also is less than those who married below age 18. Females marrying at higher ages will be more fecund at the time of their marriage than at younger ages and hence may produce more children in the first few years of their marriage. But as duration of marriage increases the fecundity of this group declines and those who marry at the younger ages attain full fecundity. For higher marriage duration groups, females who marry at younger ages produce more children than those who marry at higher ages because the former is exposed to childbirth for a longer period. Females who marry at ages 23 and above on the average have only 4.7 and 4.1 children in the rural and urban areas respectively when they complete their child-bearing period whereas the average number of children born to females who got married before age 18 is 6.4 and 6.2 respectively in the rural and urban areas. The higher age at marriage definitely reduces the overall number of children. Women marrying late in life are not only more fecund at the time of marriage but they are also inclined to build up their family early. The fact that fertility declines at a faster rate for women of higher age at marriage may be due to the composite effect of two factors namely (i) for a fixed duration of marriage women of higher age at marriage will have relatively higher present age which would make them consequently less fecund and (ii) those who marry late are likely to be more educated and they may also be favourably motivated towards limiting the family size because of higher education. In this context the absence of rural-urban differences as regards average number of children born to different groups of females is worth mentioning.

2.25 The average number of children born per woman by duration of married life and age at marriage by different characteristics, such as religion, woman's education, husband's education, nature of work and nature of industry for rural and urban areas is given in Appendix II (Table 3).

Average number of children born per woman—Completed fertility

2.26 The following types of women have been considered for the study of fertility.

1. Females whose age at marriage is below 18 years and duration of married life 30 years and over.
2. Females whose age at marriage is between 18 and 22 years and duration of married life 30 years and over and
3. Females whose age at marriage is 23 years and over and duration of married life 15 years and over. Females who are married only once and now in the married state only are considered for the analysis. The average number of children born to such women is given in the following table for the rural and urban areas of the State.

Table 2.8

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF COMPLETED FERTILITY (KERALA, 1962)

Rural/Urban	Age at marriage (Years)		
	—18	18—22	23+
1	2	3	4
Rural	6.4	5.5	4.3
Urban	6.2	5.5	4.0

The average number of children born per woman of completed fertility is higher in the rural areas than in urban areas among the two groups of females who marry below age 18 and at ages 23 and above. In the case of those marrying between ages 18 and 22 the averages in the rural and urban areas are equal. In both rural and urban areas the average decreases as age at marriage increases. The average number of children born per woman by different characteristics is given in Appendix II (Table 4).

2.27 Women aged 43 years and over also may be assumed to have completed their fertility periods. Average number of children born to such women is also important. The average number of children born to women married only once and now in the married state and aged 43 years and above comes to six in rural areas and 5.7 in urban areas. Though the average is higher in rural areas the difference between the two is not very significant. The average number of children per married woman aged 45 and over in Travancore State in 1931 was found to be 6.5 for the whole region and 5.7 for the towns. In 1941 the averages were 6.7 and 6.1 in rural and urban areas respectively of Travancore State.

2.28 The following table gives the number of women and the average number of children born per woman of completed fertility by different characteristics.

Table 2.9

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF COMPLETED FERTILITY (AGED 43 YEARS AND ABOVE) BY CHARACTERISTICS (KERALA, 1962)

Characteristics	Rural		Urban	
	No. of women	Average No. of children born per woman	No. of women	Average No. of children born per woman
1	2	3	4	5
I. Religion				
Hindu	3,706	5.8	1,029	5.6
Muslim	609	6.4	252	5.5
Christian	1,266	6.3	412	5.9
Tribes	24	@	...	...
Buddhists	...	...	1	@
II. Woman's education				
Formal schooling but high school or equivalent examination not passed	882	6.0	428	5.4
High school or equivalent examination	14	@	43	4.1
Graduated from college	3	@	12	@
Others comprising just literates and uneducated	4,706	6.0	1,211	5.9

Table 2.9—*concld.*

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF COMPLETED FERTILITY (AGED 43 YEARS AND ABOVE) BY CHARACTERISTICS (KERALA, 1962)

Characteristics	Rural		Urban	
	No. of women	Average No. of children born per woman	No. of women	Average No. of children born per woman
1	2	3	4	5
III. Husband's education				
Formal schooling but high school or equivalent examination not passed	1,608	6.0	641	5.7
High school or equivalent examination	160	5.7	146	5.1
Graduated from college	24	@	61	4.8
Others comprising just literates and uneducated	3,813	6.0	846	5.8
IV. Nature of work				
Technical, professional and related workers	179	5.8	92	5.3
Administrative, executive and managerial workers	96	5.8	72	5.6
Clerical and related workers	52	6.2	35	4.7
Sales workers	233	6.3	157	5.7
Farmers	1,698	6.1	172	5.7
Hunters, loggers and related workers	93	6.3	26	6.1
Production process workers and craftsmen	425	6.1	250	5.4
Unskilled workers	772	5.8	219	5.6
V. Nature of industry				
Agriculture where occupation is farming	1,698	6.1	172	5.7
Agriculture where occupation is other than farming	369	6.2	52	6.7
Quarrying and mining	64	6.3	9	@
Manufacture	410	6.0	250	5.3
Building and construction	82	6.4	39	6.5
Commerce	249	6.4	186	5.8
Transport, storage and communications	64	6.3	66	5.6
Services	649	5.6	243	5.2

@Average not calculated since the number of women in the sample is below 25

In the case of the three different religions the average number of children born per woman of completed fertility is less in urban areas than in rural areas. The rural-urban difference in the average is more among Muslims than among Hindus and Christians. In the rural areas the highest average is among Muslims and in the urban areas the highest among Christians. The average number of children born per woman according to wife's and husband's education reveals that the average in both these cases are lower in the urban areas. As the number of females in each cell is very small, the exact differentials cannot be brought out. Examining the average number of children born per woman by different nature of work it is seen that in the urban areas

the average is comparatively smaller in the case of clerical and related workers. There is not much variation between different groups when the average number of children born per woman is examined by nature of industry. But the average in the case of those engaged in services is found to be less than that of those engaged in other types of industries.

Average number of children born to different types of mothers

2.29 In the foregoing paragraphs, the average number of children born per woman is studied in respect of females who are married only once and still in the married state. Now, we may examine here, the position in regard to the females of the following types also.

1. Females married only once but now widowed or divorced.
2. Females married more than once and still in married state and
3. Females married more than once, but now widowed or divorced.

It will be worthwhile to examine the extent of variation among the different types of women on the average number of children born to them and whether there is any rural-urban differential. Though this will be interesting from the academic point of view, it will not have much significance from the practical point of view because of the small size of the sample of females in the three categories mentioned above. To pay attention only to unbroken marriages would mean ignoring the probably different experiences of the remarried, widowed and divorced females. This type of analysis is thus, necessary. As given in table 2.4 previously, the average number of children born per woman (married only once and still in the married state) is 3.9 in the rural areas and 3.8 in the urban areas. This is not significantly different from those of the females of different types mentioned above. The following table shows the average number of children born per woman by attained age for different types of married women.

Table 2.10

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY ATTAINED AGE FOR DIFFERENT TYPES OF MARRIED WOMEN (KERALA, 1962)

Attained age (Years)		Females married only once but now widowed or divorced		Females married more than once and still in married state		Females married more than once and now widowed or divorced	
		No. of women	Average No. of children born per woman	No. of women	Average No. of children born per woman	No. of women	Average No. of children born per woman
1		2	3	4	5	6	7
13—17	R	42	0.0	5	...	2	...
	U	7	...	2	...	1	...
18—22	R	180	0.6	58	1.1	10	0.5
	U	43	0.6	17	0.5	3	0.7
23—27	R	342	1.2	149	2.3	22	1.5
	U	78	1.4	43	2.1	5	1.6
28—32	R	495	1.9	250	3.5	38	2.1
	U	167	1.9	61	3.3	11	1.8
33—37	R	492	2.4	211	4.2	41	3.0
	U	170	2.3	50	4.6	11	3.0
38—42	R	682	3.1	214	4.6	69	3.1
	U	261	3.0	60	4.2	28	3.3
43—47	R	659	3.5	152	4.7	66	3.9
	U	241	3.7	32	4.1	16	3.9
48 +	R	5,034	4.6	275	5.0	378	4.5
	U	1,839	4.5	69	4.6	109	4.3
All ages	R	7,926	3.8	1,314	4.0	626	3.8
	U	2,806	3.9	334	3.7	184	3.7

The effect of widowhood on the average number of children is clearly revealed from the data. Comparing the average number of children born to females married only once and still in married state and those married only once but now widowed or divorced by different attained ages it is noted that the difference increases from 0.4 in the rural and 0.5 in the urban areas in the age-group 18-22 to 2.5 in rural and 2.6 in urban areas in the age-group 33-37 and declines to 1.4 in the rural and 1.2 in the urban areas in the group 48+. At the same time it may be noted that there is no significant difference between the two types of females if the average number of children of females of all age-groups together is considered. In the case of females married more than once and still in married state, in all the age-groups excepting the age-group 33-37 the average number of children is more in the rural areas than in the urban areas. But in the case of females married more than once and now widowed or divorced the average in urban areas is less than that in the rural areas only in the age-group 28-32 and 48+. In all other age-groups the averages in urban areas are more than or equal to the averages in rural areas. As the sample frequencies are small in the different groups no definite conclusion can be drawn from these differentials.

Composition of family sizes for women of completed fertility-Childless women

2.30 Among women of completed fertility 2.1 per cent are childless in rural areas against 3.2 per cent in urban areas. That childlessness is a phenomenon associated to some extent with age at marriage is seen from the percentage of childless women of completed fertility by age at marriage given below.

Table 2.11

PERCENTAGE OF CHILDLESS WOMEN TO THE WOMEN OF COMPLETED FERTILITY
(KERALA, 1962)

Age at marriage (Years)	Percentage of women	
	Rural	Urban
1	2	3
—18	1.4	2.3
18-22	2.2	3.8
23 +	6.8	7.8

Childlessness shows a rising trend with increase in age at marriage both in the rural and urban areas. Among females who married below age 18 only 1.4 per cent in rural and 2.3 per cent in urban areas are childless whereas among females who married at ages 23 and above 6.8 per cent and 7.8 per cent are sterile in the rural and urban areas respectively. The percentage of childless women in general is also higher in the urban areas.

Families by number of children

2·31 The distribution of families according to the number of children born is given in Table (2.12) below. For this purpose each female is considered as representing a family and hence the distribution of females is studied.

Table 2.12

PERCENTAGE OF FAMILIES OF DIFFERENT SIZES FOR MOTHERS OF COMPLETED FERTILITY
(KERALA, 1962)

Rural/ Urban	Percentage of families having number of children											
	0	1	2	3	4	5	6	7	8	9	10+	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
Rural	2.1	3.4	4.3	8.1	10.4	13.9	15.2	14.4	11.3	8.5	8.4	100.00
Urban	3.2	5.4	7.1	8.3	10.6	12.3	13.8	12.7	9.0	7.8	9.8	100.00

The proportion of small size families is more in urban areas than in rural areas. In both rural and urban areas, females having six children each have the highest percentage. The proportion of families having ten children and above is more in urban areas. It is remarked in the Census report of Travancore in 1931 that the size of the family most favoured is one of seven children in Travancore; 14.3 per cent of families have seven children each. Those having 5–8 children constitute 53.1 per cent and 1.4 per cent have no children at all. In 1941 also the families having seven children constituting 15 per cent of total families were more common than others. But in 1962, in Kerala, it is found that the families having six children is more common in both rural and urban areas. They constitute 15.2 per cent in rural areas and 13.8 per cent in urban areas. Families having 1–3 children constitute only 15.8 per cent in rural areas 20.8 per cent in urban areas while families having more than nine children constitute 16.9 per cent and 17.6 per cent respectively. The comparatively smaller proportion of families of small size is of grave significance. The position may further be examined with reference to the age at marriage. The following table gives the percentage distribution of families of different sizes for mothers of completed fertility by age at marriage.

Table 2. 13

PERCENTAGE OF FAMILIES OF DIFFERENT SIZES FOR MOTHERS OF COMPLETED FERTILITY BY AGE AT MARRIAGE
(KERALA, 1962)

Age at marriage (Years)		Percentage of families having number of children											
		0	1	2	3	4	5	6	7	8	9	10+	Total
1		2	3	4	5	6	7	8	9	10	11	12	13
—18	R	1.4	2.5	3.2	6.5	9.6	13.0	15.5	15.7	12.1	9.7	10.8	100.0
	U	2.3	4.4	5.1	6.4	10.0	10.8	15.2	12.9	10.8	9.3	12.8	100.0
18—22	R	2.2	4.9	4.9	10.5	12.4	16.2	13 6	13.8	10.5	6.3	4.7	100.0
	U	3.8	4.1	7.5	9.5	10.6	12.6	I4.7	15.0	8.9	6.8	6.5	100.0
23 +	R	6.8	6.5	10.8	13.5	15.1	15.4	15.4	6.8	5.4	3.5	0.8	100.0
	U	7.8	9.6	12.1	19.3	13.3	15.7	6 6	5.4	3.0	3.6	3.6	100.0

Among females who got married before attaining age 18, the largest is the group having seven children in rural areas and six children in urban areas. In the case of females whose age at marriage is 18–22 years the largest proportion is claimed by those having five children in rural areas and seven children in urban areas. Among females whose age at marriage was 23 years or above, families having five or six children form the largest group in rural areas and families having three children form the largest group in urban areas. Generally the size of family decreases as age at marriage increases. In each of the three groups of females with different age at marriage the proportion of those having more than ten children is more in urban areas.

Parity progression ratios and sterility ratios of women of completed fertility

2.32 It is interesting to examine the effect of each birth on the future fertility performances of females in rural and urban areas. This can be studied by the parity progression ratio and the sterility ratio. Parity ratio of order n is defined in terms of probability of women with already in children born, giving birth to the (n + 1) th child. Sterility ratio is the complement of the parity progression ratio. The parity progression ratio and the sterility ratio are presented in the following table for the rural and urban areas. The results of the sample census are also shown side by side for comparison.

Table 2. 14

PARITY PROGRESSION RATIO [PROPORTION OF WOMEN HAVING N CHILDREN BORN ALREADY GIVING BIRTH TO THE (N + 1) TH CHILD] AND STERILITY RATIO (PROPORTION OF WOMEN WHO CEASED REPRODUCTION AFTER GIVING BIRTH TO THE NTH CHILD)

	Women of Completed Fertility							
	Fertility survey 1962				Sample census 1960-61*			
	Parity ratio		Sterility ratio		Parity ratio		Sterility ratio	
Parity order	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
0	97.9	96.8	2.1	3.2	97	98	3	2
1	96.5	94.4	3.5	5.6	96	95	4	5
2	95.4	92.2	4.6	7.8	95	93	5	7
3	91.1	90.2	8.9	9.8	92	88	8	12
4	87.3	86.0	12.7	14.0	88	86	12	14
5	80.6	81.1	19.4	18.9	82	82	18	18
6	73.7	74.0	26.3	26.0	76	77	24	23
7	66.1	67.8	33.9	32.2	67	70	33	30
8	59.9	66.2	40.1	33.8	61	69	39	31
9	49.6	55.7	50.4	44.3	54	57	46	43

* Paper No. 31—The fertility pattern of the women in Kerala—issued by the Demographic Research Centre, Bureau of Economics and Statistics, Kerala, Trivandrum

96.5 per cent of the married females in the rural and 94.4 per cent in the urban areas who have given birth to one child go for the second child. Only a small proportion of females ceases child-bearing after the first birth. More than 70 per cent of the married females having six children go for one more child. It is only after having 9 children that 50 per cent of the females in rural areas stop bearing children. In urban areas, even at this stage, only about 45 per cent of the females stop child-birth. In both rural and urban areas the parity ratio declines as order of birth increases. Though the probability for a woman having a given number of children to have another child is less in the urban areas compared to the rural areas in the initial orders of parity viz., up to 5, in the higher orders viz., 5 and above, the trend is seen reversed. The same trend is revealed in the sample census 1960-61

also expect for the parity order O and 5. In the case of parity order O, the ratio is higher in the urban areas than in the rural areas and in parity order 5, ratio is same for both the areas. Generally, based on the experience of the sample Census and the Fertility Survey it is inferred that urban sterility is higher in the initial orders of parity. The parity progression ratio and sterility ratio may now be examined with respect to the age at marriage. The following two tables give the parity ratio and sterility ratio of females of completed fertility by age at marriage for the rural and urban areas. The corresponding ratios obtained from the sample Census 1960-61 is also presented for comparison. In rural areas, excepting the 6th order ratio fo, females who married at ages 23 and abover the parity ratio decreases steadily as the order of birth increases, irrespective of the age at marriage. But in urban areas this trend is seen only in the case of females who married below age 18. In the case of females who married between ages 18 and 22 the parity ratio of order Seven is slightly less than the parity ratio of order Eight. Among females who married at ages 23 and above the ratios are fluctuating at several points. Among those who marry at ages 23 and above, though only 18.8 percent of the females in rural areas having Nine children go for another child, in urban areas 50 percent go for the tenth child. The decline in the parity ratio from one parity to the next is gradual and not abrupt.

Table 2.15

PARITY PROGRESSION RATIO BY AGE AT MARRIAGE

Age at marriage (Years)	Rural/ Urban	Parity order									
		0	1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9	10	11	12
		Fertility Survey, 1962									
-18	Rural	98.6	97.5	96.7	93.0	88.9	83.1	75.8	67.5	62.9	52.8
	Urban	97.7	95.5	94.6	92.7	87.9	84.9	75.0	71.8	67.1	58.0
18-22	Rural	97.8	95.0	94.7	88.1	84.0	75.2	72.1	60.9	51.5	42.7
	Urban	96.2	95.7	91.9	88.7	85.9	80.4	71.7	59.6	60.0	48.7
23 +	Rural	93.2	93.0	87.5	82.2	75.8	67.4	51.7	59.0	44.4	18.8
	Urban	92.2	89.5	85.4	72.6	74.1	68.7	70.3	65.4	70.6	50.0
		Sample Census, 1960-'61*									
-18	Rural	98	97	96	93	90	84	78	69	63	54
	Urban	98	96	95	90	87	84	78	72	71	57
18-22	Rural	96	94	93	90	86	78	70	63	57	54
	Urban	97	94	93	86	87	80	73	65	64	57+
23 +	Rural	91	89	85	80	72	67	57	53+	@	@
	Urban	95	90	84	74	68+	68+	@	@	@	@

* Paper No. 31—The fertility pattern of the women in Kerala - issued by the Demographic Research Centre, Bureau of Economics and Statistics, Kerala, Trivandrum

\+ Ratio based on number of women between 26 and 50

@ Ratio not calculated since the number of women in the sample was below 25

Table 2.16

STERILITY RATIO BY AGE AT MARRIAGE

Age at marriage (Years)	Rural/ Urban	Parity order									
		0	1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9	10	11	12
		Fertility Survey, 1962									
—18	Rural	1.4	2.5	3.3	7.0	11.1	16.9	24.2	32.5	37.1	47.2
	Urban	2 3	4.5	5.4	7.3	12.1	15.1	25.0	28.2	32.9	42.0
18–22	Rural	2.2	5.0	5.3	11.9	16.0	24.8	27.9	39.1	48.5	57.3
	Urban	3.8	4.3	8.1	11.3	14.1	19.6	28.3	40.4	40.0	51.3
23 +	Rural	6.8	7.0	12.5	17.8	24.2	32.6	48.3	41.0	55.6	81.2
	Urban	7.8	10.5	14.6	27.4	25.9	41.3	29.7	34.6	29.4	50.0
		Sample Census, 1960–61 *									
—18	Rural	2	3	4	7	10	16	22	31	37	46
	Urban	2	4	5	10	13	16	22	28	29	43
18–22	Rural	4	6	7	10	14	22	30	37	43	46
	Urban	3	6	7	14	13	20	27	35	36	43+
23+	Rural	9	11	15	20	28	33	43	47+	@	@
	Urban	5	10	16	26	32+	32+	@	@	@	@

* Paper No. 31—The Fertility pattern of the women in Kerala—issued by the Demographic Research Centre, Bureau of Economics and Statistics, Kerala, Trivandrum
\+ Ratio based on number of women between 26 and 50
@ Ratio not calculated since the number of women in the sample was below 25

Average number of children contributed by each birth order to the average size of family

2.33 The subjoined table gives the average number of children contributed by each birth order to the average size of family in rural and urban areas. The average family size as revealed by the fertility survey is 5.96 for rural areas and 5.67 for urban areas as against 6.02 and 5.83 respectively according to the sample census, 1960-61. The contribution to the family size by each order of birth is decreasing as the order of birth increases in both rural and urban areas. The first three orders of birth contributes slightly less than half the average family size whereas the first four orders of birth account for more than 60 per cent of the average family size. Births of order 7 and above contribute less than 20 per cent of the average size of the family. The present average family size can be reduced by about 40 per cent if measures are adopted to prevent births of order 5 and above. The contribution of each birth to the average family size based on the Fertility Survey is less in the urban areas compared to the rural areas for all birth orders except birth order 9 and 10 and above. But in the sample census except for the first two lower order births and the last two higher orders, the contribution is lower in the urban areas.

Table 2.17

AVERAGE NUMBER OF CHILDREN CONTRIBUTED BY EACH BIRTH ORDER TO THE AVERAGE SIZE OF A FAMILY OF COMPLETED FERTILITY

Rural Urban	Birth order										Average family size
	1	2	3	4	5	6	7	8	0	10+	
1	2	3	4	5	6	7	8	9	10	11	12
	Fertility Survey, 1962										
Rural	0.98	0.95	0.90	0.82	0.72	0.58	0.43	0.28	0 17	0.13	5.96
Urban	0.97	0 91	0.84	0.76	0-65	0.53	0.39	0.27	0.18	0.17	5.67
	Sample Census, 1960—61*										
Rural	0.97	0.93	0.89	0.81	0.71	0.58	0.44	0.30	0.18	0.21	6.02
Urban	0.98	0.93	0.86	0.76	5.65	0.53	0,41	0.29	0.20	0.22	5.83

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2.34 The average number of children contributed by each birth order to the average size of the family may now be examined according to age at marriage. There is significant difference in the average size of the family in both rural and urban areas if the age at marriage of women is taken into consideration. Both in this survey and in the Sample Census 1960-61, the average family size is found to decrease as the age at marriage increases and with increasing age at marriage the contribution to the family size by high order births becomes small. In the case of females who marry at ages below 18 years, births of orders 6 and above contribute about 30 per cent of the average family size in both rural and urban areas whereas in the case of females who marry at ages 23 and above the births of orders 6 and above account for around 15 per cent only. In the case of females who marry at higher ages the contribution by lower order of births to the average family size is more than in the case of those who marry at younger ages. Higher age at marriage, therefore, helps in reducing the family size to some extent. The table given below presents the average number of children contributed by each birth order to the average size of a family of completed fertility by age at marriage, for both rural and urban areas.

Table 2.18

AVERAGE NUMBER OF CHILDREN CONTRIBUTED BY EACH BIRTH ORDER TO THE AVERAGE SIZE OF A FAMILY OF COMPLETED FERTILITY BY AGE AT MARRIAGE

Age at marriage (Years)	Rural Urban	Order of birth										Average family size
		1	2	3	4	5	6	7	8	9	10+	
1	2	3	4	5	6	7	8	9	10	11	12	13
		Fertility Survey—1962										
—18	Rural	0.99	0 96	0.93	0.86	0.77	0.64	0.48	0.33	0.21	0.18	6.35
	Urban	0.98	0.93	0.88	0.82	0.72	0.61	0.46	0.33	0.22	0.22	6.17
18—22	Rural	0.98	0.93	0.88	0.78	0.65	0.49	0.35	0.22	0.11	0.07	5.46
	Urban	0.96	0 92	0.85	0.75	0.65	0.52	0.37	0.22	0.13	0.10	5.47
23 +	Rural	0.93	0.87	0.76	0.62	0.47	0.32	0.16	0.10	0.04	0.01	4.28
	Urban	0.92	0.83	0.70	0.51	0.38	0.22	0.16	0.10	0.07	0.07	3.96
		Sample Census 1960-'61*										
—18	Rural	0.99	0.96	0 93	0.86	0.77	0.65	0.51	0.35	0.22	0.22	6.46
	Urban	0.98	0.94	0.89	0.80	0.70	0.58	0.45	0.33	0.23	0.28	6.18
18—22	Rural	0.96	0.90	0.84	0.76	0.65	0.51	0.36	0.23	0.13	0.14	5.48
	Urban	0.97	0.91	0.84	0.72	0.63	0.50	0.37	0.24	0.15	0.18	5.51
23 +	Rural	0.91	0.81	0.69	0.55	0.40	0.27	0.15	0.08	0.03	0.05	3.94
	Urban	0.95	0.85	0.71	0.53	0.36	0.25	0.18	0.11	0.04	0.04	4.02

* Paper No. 31—The Fertility pattern of the women in Kerala-issued by the Demographic Research Centre-Bureau of Economics and Statistics, Kerala, Trivandrum

Incomplete fertility - Fertility index for studying the effect of duration of married life on the growth of family size

2.35 It will be interesting to study the effect of duration of married life on the growth of family size. For each age at marriage group the percentage ratio of the average number of children born per female of a specified marriage duration group to the average for the preceding duration group is worked out for both rural and urban areas. The rate of family building, as measured by the above percentage ratio, indicates that the process of family building is at its peak in the marriage duration group 5-9 years irrespective of the age at marriage. But as the age at marriage and duration of married life advance, the pace of family building slows down. The following table clearly illustrates the above points.

Table 2.19

PERCENTAGE RATIO OF AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF A SPECIFIED MARRIAGE DURATION GROUP TO THE AVERAGE FOR THE PRECEDING DURATION GROUP BY AGE AT MARRIAGE
(KERALA, 1962)

Duration of married life (Years)	Age at marriage (Years)					
	—18		18—22		23 +	
	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
5—9	314	288	244	256	250	292
10—14	168	161	168	161	155	165
15—29	149	149	143	138	135	118
30 +	116	113	104	108	112	105*

* Based on less than 50 women

Fertility index for studying the effect of age at marriage

2.36 The fertility index for studying the effect of age at marriage is given in the following table by expressing the average number of children born per woman of a specified duration of married life, as percentage of the average number of children per women married between 18 and 22 years and having the same duration of married life. Fertility of women whose age at marriage is below 18 years is lower than that of females whose age at marriage is between 18 and 22 years in the marriage duration group 1-4 years, equal in the marriage duration groups 5-9 and 10-14 years and higher in the marriage duration groups 15 years and above. Among those married for 1-4 years the fertility of females who married at ages 23 and above is more than that of those who married below age 18. But in the other duration groups the position is reversed. Between the two groups of females who got married between the ages 18 and 22 and those who married at ages 23 and above the fertility of the latter group is always lower than that of the former, excepting the urban females of duration group 1-4 years where the fertility of both the groups are equal. The fertility indices of this table also support the observations already made regarding the effect of age at marriage and duration of married life (vide para 2.27).

Table 2 20

AVERAGE NUMBER OF CHILDREN PER WOMEN BORN UP TO SPECIFIED DURATION OF MARRIAGE TAKING THE PERFORMANCE OF WOMEN MARRIED BETWEEN 18 AND 22 YEARS AS 100 (KERALA, 1962)

Duration of married life (Years)	Age at marriage (Years)					
	—18		18—22		23 +	
	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
1—4	78	89	100	100	89	100
5—9	100	100	100	100	91	87
10—14	100	100	100	100	84	89
15—29	104	108	100	100	79	76
30 +	116	113	100	100	85	75*
All durations	123	129	100	100	71	74

* Based on less than 50 women

CHAPTER 3

SUMMARY AND CONCLUSIONS

The important features regarding the fertility of females of Kerala as revealed from the survey conducted in 1962 may be summarised as follows.

3.2 In both rural and urban areas nearly half of the females belong to the category of ever-married. More than 70 per cent of the ever-married females are still in the married state having married only once. Also, more than a quarter of the ever-married females are aged 48 years and over and hence ineffective as far as future fertility is concerned. There is no difference between the rural and urban areas in the age distribution of ever-married females. The proportion of ever-married and currently married females as obtained from the survey are in agreement with the corresponding proportions of the 1961 Census.

3.3 Remarriage rate in Kerala is comparatively higher than in other parts of the country. Remarriages are more common in rural areas than in urban areas. Females who marry more than twice constitute only a very small proportion.

3.4 Though there may be some stray instances, the practice of girls getting married at young ages, seems to have undergone a change in recent years and many females get married only at higher ages. The change to higher age at marriage is more pronounced in urban areas than in rural areas. There is no significant difference between the rural and urban areas in the average age at marriage.

3.5 Married females of the age-group 23–32 constituting less than 40 per cent of total married females account for more than 55 per cent of the total births during a year preceding the survey. Though several multiple births have been reported in the survey all these births are twin births. There are some rare instances where births have been reported to females of age 48 and over.

3.6 The birth rate obtained from the survey is lower than the computed birth rate indicating under-reporting of births in the survey. Birth rate is higher in rural areas though there is no significant difference in the distribution of females by marital status and age-groups.

3.7 In both rural and urban areas the marital fertility rate is found to be higher in the case of re-married females than in the case of females married only once.

3.8 Marital fertility is very high in rural areas compared to urban areas. The marital fertility rate increases from among young females, reaches a maximum for females of age-group 23–27 and declines as age advances further.

3.9 The marital fertility rate is highest among Christians and least among Muslims. In contrast to this, the proportion of currently married females in the child-bearing age-group is highest among Muslims and least among Christians. In the rural areas in most of the age-groups the age

specific marital fertility rate is highest among Christians and lowest among Muslims. In urban areas the fertility of Christians is comparatively very high and the fertility of Muslims declines rapidly, after attaining a maximum.

3.10 The data from the survey, on the whole, do not indicate any substantial reduction in marital fertility as a result of increasing educational standards. But there is reason to suspect that high school education in the case of females has some effect in reducing marital fertility. Husband's education also is found to have a similar influence. It is interesting to see that the marital fertility of the just literates and uneducated is lower than that of those having some educational standard. The survey data thus disproves the common belief that fertility is highest among illiterates. But it is likely that there is differential under enumeration of events by educational groups.

3.11 The current level of fertility in Kerala is very much higher than that of all-India.

3.12 Considering number of children born to females of incomplete fertility it is found that there is not much difference between the rural and urban areas in the average number of children born per woman. But family building is completed by the time females attain age 42 in urban areas whereas this is continued upto age 47 in rural areas. Average number of children born per woman is less in rural areas than in urban areas in the case of females of marriage duration less than 15 years whereas it is higher in rural areas among the females of marriage duration 15 years or more. There is a slight decline in the average number of children born per woman during the last decade.

3.13 The average number of children born per woman of incomplete fertility is highest among Christians. Rural-urban differences in the average number of children is prominent only in the case of Muslim females of marriage duration group 30 years or more. Among females of completed fertility the average number of children per woman is highest among Muslims in rural areas and among Christians in urban areas.

3.14 In the case of average number of children born per woman, it is clearly seen that the average declines as the literacy levels of husband or wife increases whereas no such definite trend was observed in the case of marital fertility.

3.15 Only slight variations in the average number of children born are noticed among females who follow different nature of work and industry.

3.16 Fertility of females who marry at higher ages is more than that of females who marry at younger ages in the first few years after marriage. But, on the whole, the former group produces less number of children than the latter by the time these females complete their child-bearing period. There is no rural-urban difference in this respect.

3.17 Rate of childlessness increases as the age at marriage increases indicating that childlessness is a phenomenon associated with age at marriage. The rate is more in urban areas than in rural areas.

3.18 It is interesting to note that small size families as well as very large families having 10 children and above is more in urban areas than in rural areas. According to the survey the more commonly found families are those having on an average six children in both rural and urban areas.

3.19 The average size of the family is 6 in rural areas and 5.7 in urban areas, considering females married only once and still in married state. The present average

family size can be reduced by 40 per cent if measures are taken to prevent births of orders 5 and above.

3.20 In the initial orders of birth the parity ratio is less in urban areas than in rural areas. But in higher orders of birth the parity ratio in urban areas is generally higher. Awareness of the disadvantages of a large family does not seem to prevail and in a majority of cases no conscious attempt seems to be made to prevent births, even after having 8 or 9 children.

3.21 The contribution by lower order births to the average size of the family is more among females who marry at higher ages than among females who marry at younger ages. The higher age at marriage helps to reduce the family size because sterility increases according to age at marriage and higher order births become rare as age at marriage increases.

3.22 The foregoing paragraphs throw light on some aspects of the fertility of women in Kerala. The fertility of females of this State is comparatively high. This high fertility is responsible for the explosive growth of the population. The growth of population may have to be checked if the State is to achieve a reasonable level of living standard within a short time. A community can think of checking the growth of population only by adopting measures to control births. Opinions differ regarding the measures to be adopted. By studying the various fertility differentials several clues are obtained for tackling the problem. It is worthwhile examining some of them.

3.23 It has been observed that an increase in the age at marriage reduces the number of births and the average family size. Though there is a tendency in recent times to get married at higher ages this practice has not become universal. Moreover, the average age at marriage, should be still higher than the present average if there is to be a considerable decline in the number of births. It is worth considering what measures can be adopted to bring about this rise in the age at marriage. In the present state of affairs, compulsory legislation is not going to be effective, even if it is assumed that legislation can be passed without stiff resistance from different communities. So long as the registration system of births and deaths is very weak and the registration of marriages is not universally adopted it will not be possible to implement the legislation on age at marriage effectively. Legislation will only lead to mis-statements of age and other malpractices. As the customs of the society change and people get accustomed to the modern way of life they may voluntarily choose a higher age at marriage. But this is a gradual process and will take time. The present rate of growth of population does not give room for complacency till then.

3.24 It has already been observed that higher education beyond the high school level in the case of wives and husbands help to reduce fertility to a considerable extent, This is achieved in two ways. Those who go for higher education generally wait till their education is completed and this automatically increases the age at marriage. Those who have got higher education will be conscious about the necessity of family limitation and will have comparatively better knowledge about the various methods of family limitation. Higher education cannot be made universal merely by establishing educational institutions wherever necessary and by making higher education free. People can be easily attracted to higher education only if sufficient suitable employment opportunities are assured after higher education. In an underdeveloped country like ours where the rate of literacy is comparatively low and the resources are very limited it

will take some more time to provide universal education and adequate employment opportunities. In the meantime, if the population is left unchecked the problem will assume more serious dimensions. The propagation of family planning methods among the masses can play an important role in this context. By intensive and effective propagation of family planning methods, more and more people may be induced to adopt successfully any of the suitable family limitation methods.

3.25 The propagation of family planning can be thought of only as an interim measure of solving the population problem. By paying more attention to this, the permanent solution of the problem should not be lost sight of. In the conditions existing in our country what is required is to give equal importance to both the temporary and permanent methods of cure and carry them on simultaneously. Being an interim measure of controlling the population growth the family planning propagation need not cover the whole population. At present it will be enough if females having 3 or more children are induced to adopt family planning. It has been observed from the survey that the present family size can be reduced by 40 per cent if births of orders 5 and above can be prevented. It has also been found that, on an average, females produce 3 children either after attaining age 28 years or after completing 10 years of married life. Therefore, besides females who have completed their fertility period, females who have not attained 25 years of age or who have not completed 10 years of marriage duration can be safely excluded in imparting knowledge of family limitation methods.

3.26 In this connection an important point which is often ignored, needs emphasis. In a country like India where more than 80 per cent of the population live in rural areas any method of controlling the growth of population, whether it is a temporary method or a permanent one, can be effective only if more attention is paid to the rural areas than the urban areas. Because of several reasons there is a tendency nowadays to make various experiments in this line in urban areas ignoring the rural areas. If this tendency is not checked and the problem is not tackled from its centre no method, however perfect it may be, is going to yield the desired result. On the other hand the problem will remain unsolved and gradually become unmanageable in spite of the huge expenditure incurred in this respect.

APPENDICES

APPENDIX I—SCHEDULES AND INSTRUCTIONS

(i) **Household Schedule**

(ii) **Fertility Slip**

(iii) **Instructions in English for filling up the schedules**

POST CENSUS SURVEY
HOUSEHOLD SCHEDULE

Census Location Code.....S. No.....

SECTION 1

[Persons (including visitors) in the household on the date of investigator's visit]

	Name	Rel. to Head	Sex	Age	M. S.		Name	Rel. to Head	Sex	Age	M. S.
1						7					
2						8					
3						9					
4						10					
5						11					
6						12					

SECTION 2

(a) Is remarriage after widowhood or divorce permissible in your family? (Yes / No) ... .

(b) If 'Yes' is the answer, is there any woman in the family who has been married more than once, give reference to S. No. in Section 1 ....

SECTION 3

Fill for all males and females above age 10 enumerated in the household

Activity during the last 15 days	S. No. in 1
1 (a) What was the person doing most of last 15 days? Wkg/H/O/UW	
(b) If answer is H/O/UW, did the person do any work at all for pay or wages or in own business or profession or farm or as unpaid family worker on any day or days during the last 15 days? (*Yes/No*)	
(c) If 'No' is the answer to (b), was the person looking for work? (*Yes/No*)	
(d) If 'No' is the answer to (c), does the person have an occupation or business or profession, eventhough he or she did not work during last 15 days (*Yes/No*)	
2 (a) Is the person a casual worker, that is, working whenever he or she gets some work? (*Yes/No*)	
(b) If 'No' is the answer to 2(a), whether his or her usual work is different from present work (*Yes/No*)	
(c) If 'Yes' is the answer to 2(a), whether his or her usual work is of seasonal nature (*Yes/No*)	

POST CENSUS SURVEY

FERTILITY SLIP

(For ever married woman)

1. Household Schedule Ref.....

2. Location Code.....

3. Name.....

4. Present age (Completed years).....

5. Religion.....

6. Education .....

8. (a) Age at wedding (age at first wedding, if remarried) .....

   (b) Interval between wedding and the time she came to live with her husband .....

   (c) Her age when she began to live with her husband;/ Total of (a) and (b)

REMARRIAGES

A. If remarried after widowhood or divorce write R.

B. How many times remarried?

C. Duration in years of current marriage

7. Marital status ..... (M/W/S)

9. If W/S, No. of years when marriage was broken by death or divorce.....

10. Duration of total married life: [(4)−(9)-8(c)]

11. HUSBAND'S PARTICULARS: Code

   (a) Nature of work..... .....

   (b) Nature of Industry in which working..... .....

   (c) Education..... .....

12. (i) Births after Onam 1960 :

   (a) Sex

   (b) Type of birth..... (L/SA/SB)

   (ii) Did this birth occur *before* or *after* Onam 1961 ? (*Before* / *After*)

13. All children born alive to this woman *before* Onam 1960 :

	Present age of still alive 1		Age at death of those now dead 2		No. of years passed since death 3	Total of 2 and 3 4
	M	F	M	F		
1st						
2nd						
3rd						
4th						
5th						
6th						
7th						
8th						
9th						
10th						

No. of entries _____ Total children M _____ F

14. Total No. of children born alive including that given in Q.12 but excluding still-births :

..... Male,..... Female Total [ ]

INSTRUCTIONS FOR FILLING UP THE SCHEDULES

A–Household Schedule

1. (i) In Section 1 all persons of the household present in the village or town at the time of investigator's visit should be entered. The requirements are more or less the same as in filling census individual slip.

(ii) It may be suggested to the respondent to give the name of residents in the sequence of their natural relationships e. g. head, wife, sons, sons' wives and children, unmarried daughters and then any others. A wide variety of related and unrelated persons come under 'others' e. g. parents, married daughters and their husbands and children, nephews, nieces, grand-sons, grand-daughters.

(iii) Consideration of the entries of relation to head, age and marital status will indicate whether any person has been missed in the list. This should be checked up in order to catch omissions of residents.

2. Section 2 aims at finding out if there is any woman who married more than once. A direct question on the point may be resented by many families and hence a general question (a) is asked. Only if the answer is in affirmative, should question (b) be asked, otherwise not. If there is any woman who married more than once, it is desirable to complete forthwith her particulars in resepect of re–marriages at the top right hand corner of this woman's fertility slip. This question of re–marriages should not be broached lightly or more often than is necessary.

3. (i) Section 3 is to be filled only in respect of persons above age 10 to find out the number of working persons in the household. The following gives the definition of 'working' for the purpose of this survey:—

> A person is 'working' if his activity brings him or to his family earnings in cash or kind. Such earnings should arise from repairs done or services rendered or sale of own or somebody else's produce including manufactured goods. The earnings arising from interest, dividend, pension, rent, royalty and begging are not relevant in this connection.

The object is to see how this definition works operationally. In 1961 Census, the concept of work was made clear through a number of illustrative examples. The two basic concepts in the definition adopted for this survey should be particularly explained to the field investigators. The first is that in return for the activity some earning in cash or *kind* should accrue to him or *to his family*. This does not involve any question of dependency. The other is that the earning should accrue from the type of economic activities specified in the definition. In the case of seasonal work like cultivation, livestock, dairying, household industry etc., a person should have had some regular work of more than an hour a day throughout most of the reference period of 15 days to be considered as 'working'. This should be particularly borne in mind in the case of a family worker.

(ii) The answer to Q.1 (a) may be recorded as

Wkg	— working
H	— Keeping house
O	— Doing other work
UW	— Unable to work

(iii) A person's usual work is what he considers to be.

(iv) Seasonal work is one which can be carried on only during certain periods or

seasons of the year and not throughout the year.

B—Fertility Slip

It is to be filled for every woman, who was ever-married.

Q.5.	For	Hindu	Write	H
		Muslim	,,	M
		Christian	,,	C
		Jain	,,	J
		Buddhist	,,	B
		Sikh	,,	S

For others write the answer actually returned.

Q.6 Education may be filled according to the highest standards reached as follows:—

Formal schooling but high school or equivalent examination not passed —E

Passed high school or equivalent examination —H

Graduated from college —G

Others comprising just literate and uneducated —O

Questions 8-10 are on marriage particulars, designed to elicit a woman's age, when she came to live with her husband and the duration of married life. Care should be taken to collect them correctly and tactfully without causing any annoyance to the informant. Collection of these particulars will present some difficulty in the case of women married more than once. Such women must have already been marked on the top right hand corner of the slip. In their case, special instruction given in (iii) below should be carefully followed.

(i) In some communities, there is a separate formal ceremony or occurrence such as gauna, muklawa or dwiragaman which takes place quite some time after the wedding celebrations. This is a custom which continues from the time when girls used to be married before attainment of puberty but used to start married life with the husband some time after the attainment of puberty. This second ceremony, therefore, marks the time when the girl comes to live with her husband, and her age at this time is sought in Q.8 (c) through two subsidiary questions 8(a) and 8(b). Information on Q.8(b) should be obtained tactfully in two stages: first by a preliminary sorting question as to whether she came to her husband's home to live with him immediately after her wedding. If answer is 'Yes', O may be entered in 8(b) and age entered in 8(a) may be repeated in 8(c). If 'No' is the answer, the interval should be asked and entered in 8(b). Before entering the total of 8(a) and 8(b) in 8(c) it should be checked up with an apparently superfluous third question whether this total represents her age when she came to live with the husband.

(ii) The difference between the present age of a woman and her age in 8 (c) gives the duration of total married life, only where the woman has been married once and still continues in the married state. However, even in this case the duration so obtained should be verified by a direct question on duration before recording in Q.10. That is to say, if the informant gives the duration of married life to be the same as calculated above the figure should be recorded in Q.10. If it differs, her present age as recorded in Q.4, her age when she began to live with her husband as recorded in Q.8(c) and the duration as now returned in Q.10 should be severally checked again with the informant in order to find out which one of these three items should be revised so that Q.4 and Q.10 can tally with each other. The necessary revisions in the recorded entries should be made.

Where a woman was married only once and is now widowed, separated or

divorced, the period that elapsed after she was widowed or divorced should be ascertained as required in Q.9. Entry in Q.10 then is given by subtracting the total of entries in Q.9 and Q.8(c) from that in Q.4.

(iii) Where a woman has been married more than once, duration of total married life is the total of several periods lived in the married state during each marriage. This can be conveniently obtained by first enquiring about the period of break between the earlier marriage and the re-marriage and then adding up the period of breaks. This total of breaks in married life should be subtracted from the difference between the entries in Q.4 and Q.8(c) to get the duration of total married life. The intervals have to be ascertained tactfully and carefully.

Q.11 (i). In Q.11(a) on nature of work the *kind of work* done by the person himself should be recorded; if the person is not working at all, 'not working' should be written.

(ii) In Q.11(b) on nature of industry the activities of the employer or the establishment where the person works should be fully recorded. The activity may relate to a production, industry, business, trade, profession or service. The description should give the chief articles or goods produced or repaired or services rendered by the employer or the establishment.

Q.12. If a child is born alive, it is a live-birth, even though it may die soon after. However, if the child is born dead, i. e. it does not show any sign of life after birth, it is a still-birth. In such cases, it should be ascertained whether the still-birth occurred before or after the completion of six months of pregnancy. Thereafter the type of birth in Q.12 (i) (b) should be entered according to the following code:

Live-birth	—L
Still-birth after the completion of six months of pregnancy	—SA
Still-birth before the completion of six months of pregnancy	—SB

Children born are to be recorded in two sections. Those born after Onam of 1960 are to be entered in Q.12 (i) and (ii). All children born before Onam of 1960 will be entered in Q.13. In states, where Onam is not readily recalled any other important festival, which occurred near about this time, may be taken. The object in Q.12 is to find out if there was any birth during a period of 12 months but most persons find it difficult to fix a span of 12 months and hence are unable to give correct information. Keeping this in view, Q.12 has been divided into two parts. Part (i) enquires about all births that took place after the preceding Onam in 1960, which the informant can well fix in his mind. Part (ii) requires the informant to fix his attention to the Onam of 1961 (which will be just over) and say if the birth occurred before or after this date. By considering answers to parts (i) and (ii), it would be possible to locate births that occurred between the two Onams of 1960 and 1961.

Q.13. In this question information is to be collected only about children born alive, leaving out still-births. The informant has to closely recollect the past and needs assistance. He may first be asked to concentrate on those still alive. He can then easily fill in those who are no longer alive.

If no child is reported to have been born it should be asked specifically if there was none born, who may have died.

Column (4) of Q.13 really works out the present ages of dead children if they had not died and were now alive. A

quick glance of the entries against column (1) and column (4) will show the internal consistency of the information. Births generally occur with a time gap of 2 to 3 years. Only in a few cases will the gap be shorter, in which case confirmation of the fact should be obtained. Where there is a wider gap, it should be made sure that there is no omission. It will be a good thing if the entries against column (1) and column (4) are reviewed with the help of the respondent asking for confirmation of the time interval between successive births, which, ordinarily, should be easy.

Total number of children recorded in Q.13 have to be shown in the margin as provided there.

Q.14 In question 14 the number of all the children born alive including any shown in Q.12 but excluding any still-birth is to be recorded.

APPENDIX II — TABLES

Table 1 Age specific marital fertility rates by different characteristics

Table 2 Number of women and average number of children born per woman in different durations of married life by characteristics

Table 3 Average number of children born per woman by age at marriage in different durations of married life by characteristics

Table 4 Average number of children born per woman of completed fertility by age at marriage and characteristics

Table 5 Block population summary

Table 6 Block summary of working population

Table 1

AGE SPECIFIC MARITAL FERTILITY RATE BY DIFFERENT CHARACTERISTICS

(i) Religion

Age-group (Years)	Hindu				Muslim				Christian			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
13-17	305	79	95.1	75.9	277	62	72.2	129.0	34	6	58.8	@
18-22	2,064	616	267.9	240.3	767	313	267.3	242.8	488	127	307.4	275.6
23-27	2,914	945	314.0	277.2	690	311	289.9	276.5	846	278	336.9	366.9
28-32	2,870	917	273.5	226.8	646	328	243.0	201.2	767	272	305.1	275.7
33-37	2,122	625	223.8	203.2	402	177	191.5	124.3	577	215	235.7	204.7
38-42	1,691	566	116.5	104.2	366	163	109.3	61.3	508	173	145.7	150.3
43-47	1,208	357	37.3	14.0	217	94	23.0	21.3	372	132	53.8	30.3
48+	2,498	672	2.4	3.0	392	158	0.0	12.7	894	280	5.6	3.6

@ Not calculated since the number of women in the sample was below 25. Tribes, Others and Buddhists have not been considered because the number of women in these groups is below 300.

(ii) Woman's education

Age-group (Years)	Uneducated and just literate				Formal schooling but high school or equivalent examination not passed				Passed high school or equivalent examination			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
13-17	439	86	75.2	93.0	175	57	102.9	70.2	6	4	@	@
18-22	2,108	545	259.5	236.7	1,155	444	299.6	252.3	79	63	227.8	285.7
23-27	2,795	780	309.5	276.9	1,516	632	320.6	330.7	151	109	331.1	220.2
28-32	3,005	874	276.5	223.1	1,194	552	266.3	255.4	103	74	320.4	162.2
33-37	2,229	583	215.8	183.5	851	380	233.8	210.5	35	43	342.9	116.3
38-42	2,010	597	116.9	103.9	549	268	140.2	111.9	17	36	@	83.3
43-47	1,453	380	39.9	23.7	350	181	37.1	11.0	5	17	@	@
48+	3,253	821	2.8	6.1	532	247	3.8	0.0	9	36	@	0.0

@ Not calculated since the number of women in the sample was below 25. Graduates from college have not been considered because the number of women in the group was very low.

Table 1 — *contd.*

AGE SPECIFIC MARITAL FERTILITY RATE BY DIFFERENT CHARACTERISTICS — *contd.*

(iii) Husband's education

Age-group (Years)	Uneducated and just literate				Formal schooling but high school or equivalent examination not passed				Passed high school or equivalent examination			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
13–17	382	70	73.3	57.1	214	61	93.5	82.0	22	12	@	@
18–22	1,876	395	258.0	217.7	1,244	511	298.2	252.4	197	109	269.1	321.1
23–27	2,368	551	310.0	268.6	1,783	744	323.6	328.0	272	188	283.1	234.0
28–32	2,374	564	270.9	223.4	1,704	741	278.8	244.3	202	163	277.2	214.7
33–37	1,767	403	217.3	181.1	1,206	476	235.5	210.1	128	101	171.9	148.5
38–42	1,585	397	124.3	85.6	890	393	115.7	127.2	90	83	133.3	108.4
43–47	1,146	280	43.6	25.0	595	232	33.6	17.2	59	50	16.9	0.0
48+	2,667	566	3.4	8.8	1,013	409	2.0	0.0	101	96	0.0	0.0

@ Not calculated since the number of women in the sample was below 25. Females having husbands graduated from college have not been considered because the number of women in the sample was very low.

(iv) Nature of work

Age-group (Years)	Technical, professional and related workers				Administrative, executive and managerial workers				Clerical and related workers			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
13–17	24	5	@	@	31	6	161.3*	@	8	10	@	@
18–22	112	53	258.9	207.5	152	72	243.4	194.4	86	77	244.2	298.7
23–27	202	104	302.0	250.0	202	95	302.0	378.9	114	115	236.8	217.4
28–32	191	84	240.8	142.9	211	126	312.8	254.0	102	85	284.3	200.0
33–37	136	64	205.9	140.6	123	86	252.0	197.7	59	64	135.6	109.4
38–42	88	61	113.6	98.4	107	76	102.8	105.3	62	43	129.0	116.3
43–47	76	32	39.5	31.3	52	36	96.2	0.0	25	17	80.0	@
48+	103	60	0.0	0.0	44	36	0.0	0.0	27	18	37.0	@

Table 1 — *contd.*

AGE SPECIFIC MARITAL FERTILITY RATE BY DIFFERENT CHARACTERISTICS — *contd.*

(iv) Nature of work—*contd.*

Age-group (Years)	Sales workers				Farmers				Hunters, loggers and related workers			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	14	15	16	17	18	19	20	21	22	23	24	25
13—17	83	21	36.1	@	155	9	96.8	@	12	SNW	@	@
18—22	280	157	292.9	261.1	869	60	269.3	166.7	98	SNW	295.9	@
23—27	374	183	352.9	273.2	1,094	79	328.2	265.8	142	SNW	323.9	@
28—32	315	210	273.0	228.6	1,136	86	284.3	267.4	122	SNW	229.5	@
33—37	205	130	239.0	161.5	838	85	219.6	223.5	105	SNW	209.5	@
38—42	154	99	77.9	141.4	737	68	146.5	88.2	68	SNW	73.5	@
43—47	95	73	31.6	41.1	579	53	39.7	18.9	37	SNW	27.0	@
48+	138	84	14.5	0.0	1,119	119	0.9	16.8	56	SNW	0.0	@

(iv) Nature of work—*concld.*

Age-group (Years)	Production process workers and craftsmen				Unskilled workers			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	26	27	28	29	30	31	32	33
13—17	75	41	106.7	97.6	175	34	57.1	58.8
18—22	443	247	302.5	242.9	901	249	259.7	249.0
23—27	582	369	324.7	327.9	1,099	341	311.2	263.9
28—32	556	341	293.2	231.7	1,060	321	261.3	264.8
33—37	397	210	244.3	214.3	708	201	202.0	199.0
38—42	300	172	123.3	87.2	590	180	128.8	94.4
43—47	182	120	44.0	25.0	349	92	28.7	21.7
48+	243	130	4.1	0.0	423	127	2.4	7.9

(v) Nature of industry

Age-group (Years)	Agriculture where occupation is farming				Agriculture where occupation is other than farming				Quarrying and mining			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
13—17	155	9	96.8	@	37	SNW	108.1	@	7	SNW	@	@
18—22	869	60	269.3	166.7	260	SNW	284.6	@	51	SNW	274.5	@
23—27	1,094	79	328.2	265.8	422	SNW	315.2	@	66	SNW	348.5	@
28—32	1,136	86	284.3	267.4	366	SNW	276.0	@	54	SNW	277.8	@
33—37	838	85	219.6	223.5	277	SNW	227.4	@	53	SNW	226.4	@
38—42	737	68	146.5	88.2	222	SNW	121.6	@	38	SNW	78.9	@
43—47	579	53	39.7	18.9	133	SNW	67.7	@	31	SNW	32.3	@
48+	1 119	119	0.9	16.8	236	SNW	16.9	@	33	SNW	0.0	@

Table 1 — *concld.*

AGE SPECIFIC MARITAL FERTILITY RATE BY DIFFERENT CHARACTERISTICS—*concld.*

(v) Nature of industry—*contd.*

Age-group (Years)	Manufacture				Building and construction				Commerce			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	14	15	16	17	18	19	20	21	22	23	24	25
13—17	73	39	82.2	102.6	10	SNW	@	@	84	29	35.7	103.4
18—22	440	266	300.0	233.1	95	SNW	273.7	@	313	205	297.1	253.7
23—27	592	400	304.1	312.5	106	SNW	396.2	@	416	244	358.2	295.1
28—32	548	379	284.7	242.7	101	SNW	316.8	@	345	255	266.7	235.3
33—37	397	239	239.3	213.4	75	SNW	253.3	@	240	164	237.5	158.5
38—42	289	190	103 8	105.3	58	SNW	189.7	@	176	128	90.9	140.6
43—47	177	126	33.9	23.8	26	SNW	38.5	@	104	94	67.3	21.3
48+	233	124	0.0	0.0	56	SNW	17.9	@	145	92	6.9	0.0

(v) Nature of industry—*concld.*

Age-group (Years)	Transport, storage and communications				Services			
	No. of women		Age specific marital fertility rate		No. of women		Age specific marital fertility rate	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	26	27	28	29	30	31	32	33
13—17	18	12	@	@	172	31	69.8	32.3
18—22	76	96	355.3	239.6	790	232	232.9	241.4
23—27	160	174	368.8	281.6	964	341	286.3	258.1
28—32	132	134	340.9	238.8	979	359	256.4	203.3
33—37	94	94	308 5	212 8	635	240	189.0	166.7
38—42	59	59	135.6	152 5	513	208	122.8	81.7
43—47	37	37	27.0	0.0	295	95	40.7	10.5
48+	27	29	0.0	0 0	354	148	2.8	0.0

SNW Small number of women

@ Not calculated since the number of women in the sample was below 25

* Data appear to be defective

Table 2

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN IN DIFFERENT DURATIONS OF MARRIED LIFE BY CHARACTERISTICS

(i) Religion

Duration of married life (in years)	Hindu				Muslim				Christian			
	No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
1—4	2,343	711	0.8	0.9	673	267	0.7	0.8	609	188	0.9	1.0
5—9	2,597	844	2.2	2.2	678	316	2.1	2.3	693	264	2.3	2.6
10—14	2,747	806	3.6	3.6	637	290	3.6	3.6	744	232	3.9	4.0
15—29	4,997	1,572	5.3	5.2	1,174	518	5.5	5.4	1,408	496	5.6	5.5
30+	2,725	751	5.9	5.9	489	192	6.6	5.7	958	283	6.4	6.3
All durations*	15,409	4,684	3.9	3.8	3,651	1,583	3.8	3.7	4,412	1,463	4.3	4.3

(ii) Woman's education

Duration of married life (in years)	Uneducated and just literate				Formal schooling, but high school or equivalent examination not passed				Passed high school or equivalent examination				Graduated from college			
	No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urdan
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1—4	2,159	537	0.8	0.9	1,316	506	0.9	0.9	162	111	0.8	0.8	SNW	SNW	@	@
5—9	2,527	754	2.2	2.3	1,338	566	2.2	2.4	119	88	2.3	2.3	SNW	SNW	@	@
10—14	2,879	756	3.6	3.7	1,210	505	3.7	3.9	59	52	3.1	3.2	SNW	SNW	@	@
15—29	5,874	1,654	5.4	5.3	1,712	847	5.4	5.3	35	78	4.7	4.2	SNW	SNW	@	@
30+	3,609	933	6.1	6.1	570	271	6.2	5.7	8	20	@	@	SNW	SNW	@	@
All durations*	17,048	4,634	4.2	4.2	6,146	2,695	3.5	3.6	383	349	2.1	2.5	27	55	2.0	1.7

* Excludes women with duration of married life less than one year

@ Not calculated due to small number of women

SNW Small number of women

Table 2 — *contd.*

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN IN DIFFERENT DURATIONS OF MARRIED LIFE —*contd.*

(iii) Husband's education

Duration of married life (in years)	Uneducated and just literate				Formal schooling but high school or equivalent examination not passed				Passed high school or equivalent examination				Graduated from college			
	No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1—4	1,896	384	0.8	0.8	1,457	567	0.8	0.9	256	160	0.8	0.9	SNW	SNW	@	@
5—9	2,152	525	2.1	2.2	1,563	685	2.3	2.3	231	161	2.2	2.4	SNW	SNW	@	@
10—14	2,332	505	3.6	3.6	1,610	643	3.7	3.8	186	145	3.4	3.7	SNW	SNW	@	@
15—29	4,637	1,133	5.4	5.3	2,707	1,155	5.4	5.3	247	217	5.0	4.9	SNW	SNW	@	@
30+	2.939	643	6.1	6.0	1,127	456	6.1	6.0	109	91	6.2	5.3	SNW	SNW	@	@
All durations*	13,956	3,190	4.1	4.2	8,464	3,506	3.8	3.8	1,029	774	3.2	3.4	155	263	2.9	3.1

(iv) Nature of work

Duration of married life (in years)	Technical, professional and related workers				Administrative, executive and managerial workers				Clerical and related workers				Sales workers			
	No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1—4	144	77	0.9	0.9	168	75	0.8	1.0	113	108	0.8	0.8	298	151	0.8	0.9
5—9	179	81	2.2	2.1	179	99	2.2	2.0	95	97	2.2	2.2	325	194	2.3	2.5
10—14	175	77	3.5	3.4	204	109	3.6	3.8	91	73	3.5	3.8	305	165	3.5	4.0
15—29	290	157	5.3	5.2	287	197	5.2	5.2	135	112	5.2	5.1	508	323	5.6	5.7
30+	116	57	6.2	5.5	59	46	5.8	6.2	32	21	6.3	@	159	103	6.3	6.0
All durations*	904	449	3.8	3.6	897	526	3.5	3.8	466	411	3.3	3.1	1,595	936	3.7	4.0

* Excludes women with duration of married life less than one year

@ Not calculated due to small number of women

SNW Small number of women

Table 2 — *contd.*

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN IN DIFFERENT DURATIONS OF MARRIED LIFE —*contd.*

(iv) Nature of work—*concld.*

Duration of married life (in years)	Farmers				Hunters, loggers and related workers				Production process workers and craftsmen				Unskilled workers			
	No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman		No. of women		Average no. of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
1—4	923	70	0.8	0.8	92	SNW	0.9	@	485	280	0.8	0.9	959	235	0.8	0.9
5—9	973	68	2.2	2.1	124	SNW	2.4	@	556	320	2.2	2.3	972	339	2.1	2.3
10—14	1,141	76	3.7	3.8	128	SNW	3.8	@	475	289	3.7	3.8	995	297	3.7	3.6
15—29	2,121	204	5.5	5.0	212	SNW	5.4	@	935	549	5.5	5.4	1,771	504	5.3	5.2
30+	1,271	135	6.2	6.0	71	SNW	6.5	@	270	158	6.0	5.5	499	151	5.9	5.9
All durations*	6,429	553	4.1	4.2	627	130	3.9	4.4	2,721	1,596	3.7	3.7	5,196	1,526	3.6	3.6

(v) Nature of industry

Duration of married life (in years)	Agriculture where occupation is farming				Agriculture where occupation is other than farming				Quarrying and mining			
	No. of women		Average number of children born per woman		No. of women		Average number of children born per woman		No. of women		Average number of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13
1-4	923	70	0.8	0.8	275	SNW	0.8	@	51	SNW	0.8	@
5-9	973	68	2.2	2.1	352	SNW	2.3	@	56	SNW	2.5	@
10-14	1,141	76	3.7	3.8	401	SNW	3.7	@	52	SNW	3.8	@
15-29	2,121	204	5.5	5.0	620	SNW	5.5	@	131	SNW	5.8	@
30+	1,271	135	6.2	6.0	269	SNW	6.3	@	40	SNW	6.3	@
All durations*	6,429	553	4.1	4.2	1,917	231	4.0	4.3	330	28	4.2	5.6

* Excludes women with duration of married life less than one year

@ Not calculated due to small number of women in the sample

SNW Small number of women

Table 2 — *concld.*

NUMBER OF WOMEN AND AVERAGE NUMBER OF CHILDREN BORN PER WOMAN IN DIFFERENT DURATIONS OF MARRIED LIFE— *concld.*

(v) Nature of industry—*contd.*

Duration of married life (in years)	Manufacture				Building and construction				Commerce			
	No. of women		Average number of children born per woman		No. of women		Average number of children born per woman		No. of women		Average number of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	14	15	16	17	18	19	20	21	22	23	24	25
1–4	482	306	0 9	0.9	105	SNW	0.8	@	340	208	0.8	0.9
5–9	556	333	2.2	2.2	90	SNW	2.1	@	360	247	2.3	2.4
10–14	485	337	3.7	3.8	97	SNW	3.7	@	337	208	3.6	4.0
15–29	896	594	5.5	5.4	164	SNW	5.7	@	566	405	5.6	5.6
30+	262	154	6.0	5.3	57	SNW	6.7	@	164	120	6.4	6.1
All durations*	2,681	1,724	3.7	3.6	513	195	3·8	4.4	1,767	1,188	3.7	3.9

(v) Nature of industry—*concld.*

Duration of married life (in years)	Transport, storage and communications				Services			
	No of women		Average number of children born per woman		No. of women		Average number of children born per woman	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	26	27	28	29	30	31	32	33
1–4	89	109	1.0	1.0	848	252	0.7	0.8
5–9	142	159	2.4	2.3	879	322	2.0	2.2
10–14	123	124	3.9	3.7	899	329	3.5	3.5
15–29	207	197	5 6	5.7	1,533	559	5.1	4.9
20+	30	37	6.5	5.9	437	154	5.8	5.6
All durations*	591	626	3.8	3.6	4,596	1,616	3.5	3.5

* Excludes women with duration of married life less than one year

@ Not calculated due to small number of women in the sample

SNW Small number of women.

Table 3

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE BY CHARACTERISTICS

(i) Religion

Duration of married life (in years)	Hindu						Muslim						Christian					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1-4	0.7	0.9	0.9	0.7	0.9	0.9	0.6	0.9	0.4+	0.9	0.7	@	0.9	0.9	0.8	1.0+	1.1	0.7+
5-9	2.2	2.2	2.0	2.2	2.3	1.9	2.1	2.2	@	2.3	2.2	@	2.3	2.3	2.3+	2.6	2.6	2.2+
10-14	3.6	3.6	3.1	3.6	3.7	3.2	3.7	3.5	@	3.8	3.2	@	3.9	4.0	3.3+	4.1	4.0	3.6+
15-29	5.4	5.2	4.1	5.3	5.1	3.8	5.6	5.4	@	5.6	4.8	@	5.7	5.7	4.6+	5.9	5.3	4.0+
30+	6.2	5.2	4.4	6.1	5.5	@	6.8	5.7	@	6.0	4.9+	@	6.5	6.2	@	6.5	5.8	@
All durations*	4.3	3.5	2.5	4.3	3.4	2.3	4.0	3.5	2.2	4.0	3.0	3.0	4.9	3.8	2.8	5.1	3.8	2.7

(ii) Woman's education

Duration of married life (in years)	Uneducated and just literate						Formal schooling, but high school or equivalent examination not passed						Passed high school or equivalent examination					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1-4	0.7	0.9	0.6	0.8	0.9	0.9+	0.7	0.9	1.1	0.8	1.0	1.0	@	0.8	0.8	@	0.9	0.8
5-9	2.2	2.2	1.9	2.3	2.3	2.0+	2.3	2.2	2.2	2.4	2.4	2.1+	@	2.2	@	@	2.3	@
10-14	3.7	3.7	3.1	3.7	3.6	3.2+	3.7	3.7	3.3	3.8	4.0	3.7+	@	3.2+	@	@	@	@
15-29	5.5	5.2	4.1	5.5	5.2	3.7+	6.4	5.4	4.4	5.5	5.0	4.7+	@	@	@	@	4.4+	@
30+	6.3	5.4	4.7	6.3	5.8	@	6.4	5.6	@	6.0	4.8	@	@	@	@	@	@	@
All durations*	4.5	3.8	2.7	4.5	3.7	2.7	3.8	3.2	2.5	4.1	3.2	2.7	2.5	2.1	1.7	2.9	2.5	1.9

* Excludes women with duration of married life below one year

@ Average not calculated since the number of women in the sample was below 25

\+ Average is based on number of women between 25 and 49

Table 3—*contd.*

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE—*contd.*

(iii) Husband's education

Duration of married life (in years)	Uneducated and just literate						Formal schooling but high school or equivalent examination not passed						Passed high school or equivalent examination					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1–4	0.7	0.9	0.7	0.8	0.9	0.9+	0.7	0.9	0.9	0.8	1.0	0.9	0.8	0.8	0.8+	0.8+	0.9	0.7+
5–9	2.1	2.2	1.9	2.2	2.3	2.0+	2.3	2.3	2.1	2.3	2.4	2.0+	2.2	2.2	2.1+	2.7+	2.2	@
10–14	3.7	3.7	3.1	3.7	3.5	@	3.7	3.7	3.2	3.7	4.0	3.3+	3.5	3.5	@	3.9	3.5	@
15–29	5.5	5.3	4.1	5.5	5.1	4.0+	5.5	5.4	4.3	5.6	5.1	3.8	5.2	4.8	@	4.8	5.2	@
30+	6.4	5.4	4.8	6.2	5.7	@	6.3	5.5	@	6.2	5.5	@	6.6	@	@	5.6	4.9+	@
All durations*	4.4	8.7	2.7	4.5	3.7	2.7	4.2	3.4	2.4	4.4	3.4	2.5	4.0	2.7	2.2	4.0	3.1	2.5

(iv) Nature of work

Duration of married life (in years)	Technical, professional and related workers						Administrative, executive and managerial workers						Clerical and related workers					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+	-18	18–22	23+
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1–4	0.8+	1.0	0.7+	@	1.0+	@	0.7	0.9	0.8+	1.0+	1.0+	@	0.6+	0.9	@	0.7+	1.0	@
5–9	2.2	2.2	@	2.4+	2.1+	@	2.1	2.2	@	2.1+	2.0+	@	2.4+	2.1+	@	2.5+	2.1+	@
10–14	3.6	3.5	@	3.4+	@	@	3.8	3.6	@	4.0	3.6+	@	3.6+	3.6+	@	3.7+	3.9+	@
15–29	5.4	5.5	@	5.4	4.9	@	5.3	5.0	@	5.6	4.9	@	5.4	5.0	@	5.2	4.9+	@
30+	6.5	6.0+	@	5.7+	@	Nil	5.9+	@	@	6.1+	@	@	6.4+	@	Nil	@	@	Nil
All durations*	4.3	3.5	2.1	4.3	3.2	2.5	3.8	3.2	2.1	4.3	3.5	2.6	4.0	2.8	2.3	3.7	2.8	1.8+

* Excludes women with duration of married life below one year

@ Average not calculated since the number of women in the sample was below 25

\+ Average is based on number of women between 25 and 49

Table 3—*contd.*

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE—*contd.*

(iv) Nature of work—*contd.*

Duration of married life (in years)	Sales workers						Farmers						Hunters, loggers and related workers					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1-4	0.6	1.0	1.0+	0.9	0.9	@	0.7	0.8	0.7	0.5+	1.1+	@	1.0+	0.9+	@	@	@	@
5-9	2.1	2.4	@	2.5	2.6	@	2.2	2.2	1.8	1.8+	2.3+	@	2.4	2.3	@	@	@	@
10-14	3.5	3.8	@	3.9	4.1	@	3.7	3.7	2.8+	4.1+	3.4+	@	3.9	3.5+	@	@	@	@
15-29	5.7	5.6	@	5.9	5.4	@	5.6	5.3	4.2	5.3	4.7	@	5.5	5.2	@	@	@	@
30+	6.5	5.3	Nil	6.0	@	@	6.4	5.7	@	6.2	5.7+	@	6.7	6.0+	Nil	@	@	@
All durations*	4.0	3.4	2.3	4.5	3.3	2.7	4.5	3.7	2.4	4.7	3.7	3.1	4.3	3.5	@	5.1	4.2	@

(iv) Nature of work—*concld.*

Duration of married life (in years)	Production process workers and craftsmen						Unskilled workers					
	Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	38	39	40	41	42	43	44	45	46	47	48	49
1-4	0.7	0.9	0.9+	0.8	1.0	@	0.7	0.9	0.8	0.9	0.8	1.2+
5-9	2.2	2.3	2.1+	2.3	2.3	@	2.2	2.2	1.9	2.3	2.4	@
10-14	3.6	3.9	@	3.9	3.8	@	3.8	3.7	3.4+	3.6	3.8	@
15-29	5.6	5.4	4.3+	5.5	5.4	@	5.4	5.2	4.5	5.4	4.9	@
30+	6.3	5.4	@	5.5	5.9+	@	6.2	4.8	@	5.9	6.0+	@
All durations*	4.1	3.4	2.5	4.1	3.2	2.7	3.9	3.3	2.6	3.9	3.3	2.2

* Excludes women with duration of married life below one year

@ Average not calculated since the number of women in the sample was below 25

\+ Average is based on number of women between 25 and 49

Table 3 — *contd.*

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE —*contd.*

(v) Nature of industry

Duration of married life (in years)	Agriculture where occupation is farming						Agriculture where occupation is other than farming						Quarrying and mining					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1-4	0·7	0·8	0·7	0·5+	1·1+	@	0·7	0·8	@	@	@	@	@	@	@	@	@	@
5-9	2·2	2·2	1·8	1·8+	2·3+	@	2·4	2·3	@	@	@	@	2·3+	@	@	@	@	@
10-14	3·7	3·7	2·8+	4·1+	3·4+	@	3·6	3·8	@	@	@	@	3·9+	@	@	@	@	@
15-29	5·6	5·3	4·2	5·3	4·7	@	5·6	5·3	@	6·1+	5·6+	@	5·9	5·5+	@	@	@	@
30+	6·4	5·7	@	6·2	5·7+	@	6·7	5·4	@	8·4+	@	@	6·6+	@	@	@	@	@
All durations*	4·5	3·7	2·4	4·7	3·7	3·1+	4·4	3·5	3·0	5·0	3·8	@	4·5	3·7	@	@	@	@

(v) Nature of industry—*contd.*

Duration of married life (in years)	Manufacture						Building and construction						Commerce					
	Rural			Urban			Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1-4	0·8	1·0	1·0+	0·8	0·9	0·9+	0·8+	0·8	@	@	@	@	0·7	1·0	0·9+	9·9	0·9	0·9
5-9	2·2	2·3	2·0+	2·2	2·2	@	2·1+	2·1+	@	@	@	@	2·2	2·4+	2·4+	2·4	2·4	@
10-14	3·6	3·9	3·6	3·8	3·9	@	3·7	3·8	@	@	@	@	3·6	3·9	@	3·9	4·1	@
15-29	5·6	5·6	4·1+	5·4	5·4	4·4+	5·9	5·5	@	5·7+	@	@	5·7	5·6	@	5·8	5·4	@
30+	6·3	5·3	@	5·2	5·5+	@	7·1+	@	@	@	@	@	6·6	5·6+	Nil	6·1	@	@
All durations*	4·1	3·4	2·5	4·0	3·2	2·6	4·3	3·3	@	5·0	3·9	@	4·1	3·3	2·3	4·4	3·3	2·6

* Excludes women with duration of married life below one year

@ Average not calculated since the number of women in the sample was below 25

\+ Average is based on number of women between 25 and 49

Table 3 — *concld.*

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN BY AGE AT MARRIAGE IN DIFFERENT DURATIONS OF MARRIED LIFE — *concld.*

(v) Nature of industry—*concld.*

Duration of married life (in years)	Transport, storage and communications						Services					
	Rural			Urban			Rural			Urban		
	Age at marriage (years)			Age at marriage (years)			Age at marriage (years)			Age at marriage (years)		
	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+	-18	18-22	23+
1	38	39	40	41	42	43	44	45	46	47	48	49
1-4	0.8+	1.1+	@	0.9+	1.0	@	0.6	0.9	0.7	0.8	0.9	0.8+
5-9	2.2	2.5	@	2.3	2.3	@	2.0	2.0	2.1	2.2	2.2	1.8+
10-14	4.2	3.4+	@	3.8	3.8+	@	3.5	3.6	3.3	3.6	3.5	3.2+
15-29	5.6	5.6	@	6.1	5.3	@	5.1	5.1	3.6	5.1	4.7	4.3+
30+	@	@	Nil	6.2+	@	Nil	6.0	5.3	@	5.8	5.2+	@
All durations*	4.2	3.5	2.2+	4.2	3.2	2.4	3.7	3.2	2.2	3.9	3.2	2.3

* Excludes women with duration of married life below one year

@ Average not calculated since the number of women in the sample was below 25

\+ Average is based on number of women between 25 and 49

APPENDIX

Table 4

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF COMPLETED FERTILITY BY AGE AT MARRIAGE AND CHARACTERISTICS

(i) Religion

Age at marriage (Years)	Hindu		Muslim		Christian	
	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
-18	6.2	6.1	6.8	6.0	6.5	6.5
18-22	5.2	5.5	5.7	4.9	6.2	5.8
23+	4.2	3.9	3.9*	4.3**	4.9	4.0

(ii) Woman's education

Age at marriage (Years)	Uneducated and just literate		Formal schooling but high school or equivalent examination not passed		Passed high school or equivalent examination	
	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
-18	6.3	6.3	6.4	6.0	...	...
18-22	5.4	5.8	5.6	4.8	...	...
23+	4.3	3.8	4.3	4.7	...	3.2**

(iii) Husband's education

Age at marriage (Years)	Uneducated and just literate		Formal schooling but high school or equivalent examination not passed		Passed high school or equivalent examination		Graduated from college	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9
-18	6.4	6.2	6.3	6.2	6.6	5.6	...	5.9*
18-22	5.4	5.7	5.5	5.5	5.2	4.9	...	...
23+	4.3	4.0	4.3	4.0	4.5**	3.8*	...	3.8**

* Average is based on number of women between 25 and 49

** Average is based on number of women between 11 and 25

... Average is not calculated since the number of women is up to 10

Table 4 — *concld.*

AVERAGE NUMBER OF CHILDREN BORN PER WOMAN OF COMPLETED FERTILITY BY AGE AT MARRIAGE AND CHARACTERISTICS — *concld.*

(iv) Nature of work

Age at marriage (years)	Techincal, professional and related workers		Administrative, executive and managerial workers		Clerical and related workers		Sales workers		Farmers		Hunters, loggers and related workers		Production process workers and craftsmen		Unskilled workers	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
–18	6.5	5.7*	5.9*	6.1*	6.4*	6.1**	6.5	6.0	6.4	6.2	6.7**	7.5	6.3	5.5	6.2	5.9
18–22	6.0*	5.1**	5.8**	...	...	...	5.3*	6.1**	5.7	5.7*	6.0**	...	5.4	5.9*	4.8	6.0*
23+	3.7**	4.9**	...	4.6**	...	...	5.0**	4.0**	4.4	4.5**	...	...	4.3*	4.2*	4.6	3.3**

(v) Nature of industry

Age at marriage (years)	Agriculture where occupation is farming		Agriculture where occupation is other than farming		Quarrying and mining		Manufacture		Building and construction		Commerce		Transport, storage and communications		Services	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
–18	6.4	6.2	6.7	8.4*	6.6*	...	6.3	5.2	7.1*	6.5**	6.6	6.1	6.9**	6.2	6.0	5.8
18–22	5.7	5.7*	5.4	...	5.5**	...	5.3	5.5*	5.8**	...	5.6*	5.6**	...	...	5.3	5.2*
23+	4.4	4.5**	5.3**	...	...	...	4.2*	4.4**	...	...	5.7**	4.4**	...	...	3.7	4.2*

* Average is based on number of women between 25 and 49

** Average is based on number of women between 11 and 25

... Average not calculated since the number of women is upto 10

Table 5

BLOCK POPULATION SUMMARY

Rural

(a) Frequency distribution of households by persons, females, persons aged above 10 and never married females.

Number of members in the household	No. of households having the number of members in the relevant horizontal row of column 1 in terms of			
	Persons	Females	Persons above age 10	Never married females
1	2	3	4	5
0	...	443	1	5,953
1	648	3,754	922	7,070
2	1,436	6,012	4,943	5,402
3	2,355	6,633	5,041	3,072
4	3,167	3,785	4,570	1,256
5	3,656	2,113	3,512	442
6	3,631	938	2,129	126
7	3,000	418	1,172	42
8	2,197	164	567	12
9	1,328	60	288	3
10	825	33	127	...
Over 10	1,137	27	108	2
Total	23,380	23,380	23,380	23,380
Total number in all households of over 10 members each	14,266	330	1,286	26

(b) Summary

(i) Total persons	:	136,363
(ii) Total females	:	69,448
(iii) Total males	:	66,915
(iv) Total persons above age 10	:	92,433
(v) Total never married females	:	35,523
(vi) Total ever married females	:	33,925

Urban

(a) Frequency distribution of households by persons, females, persons aged above 10 and never married females.

Number of members in the household	No. of households having the number of members in the relevant horizontal row of column 1 in terms of			
	Persons	Females	Persons above age 10	Never married females
1	2	3	4	5
0	...	132	...	1,817
1	143	1,156	212	2,112
2	437	1,783	1,375	1,663
3	681	1,623	1,490	954
4	947	1,224	1,392	502
5	1,083	691	1,100	204
6	1,092	372	699	73
7	939	197	473	27
8	645	99	267	10
9	467	38	165	5
10	311	30	91	1
Over 10	625	25	106	2
Total	7,370	7,370	7,370	7,370
Total number in all households of over 10 members each	8,280	323	1,382	24

(b) Summary

(i) Total persons	:	46,141
(ii) Total females	:	23,310
(iii) Total males	:	22,831
(iv) Total persons above age 10	:	31,918
(v) Total never married females	:	12,114
(vi) Total ever married females	:	11,196

Table 6

BLOCK SUMMARY OF WORKING POPULATION

Rural

IV—Block Summary of Section 3

		Persons	Males	Females
Group A.				
	(i) Number working	45,168	30,521	14,647
	(ii) Number unemployed	2,128	1,355	773
	(iii) Number not economically active	45,137	13,448	31,689
	(iv) Number over age 10 [i+ii+iii]	92,433	45,324	47,109
Group B.				
	(v) Number returned as 'working' straightaway	39,652	29,015	10,637
	(vi) Additional number returned as working on a pointed reference	4,521	1,031	3,490
	(vii) Number having a job though not working within last 15 days	995	475	520
Group C.				
	(viii) Number of casual workers	18,701	11,490	7,211
	(ix) Number of workers other than casual who had work in the last 15 days different from their usual work	564	414	150
	(x) Of the workers in (viii) above, the number which took to work other than the usual work, this being of seasonal nature	8,893	5,121	3,772
Group D.				
	(xi) Number of non-casual workers who did not do any work during the last 15 days but had work of a nature different from their usual work	34	17	17
	(xii) Number of seasonal workers who changed to casual work but did not do any work during the last 15 days	186	64	122
	(xiii) Number of casual workers who had no work during the last 15 days and were looking for work	349	229	120

Urban

IV—Block Summary of Section 3

		Persons	Males	Females
Group A.				
	(i) Number working	14,052	10,318	3,734
	(ii) Number unemployed	909	617	292
	(iii) Number not economically active	16,957	4,897	12,060
	(iv) Number over age 10 [i+ii+iii]	31,918	15,832	16,086
Group B.				
	(v) Number returned as 'working' straightaway	12,723	9,944	2,779
	(vi) Additional number returned as working on a pointed reference	1,141	248	893
	(vii) Number having a job though not working within last 15 days	188	126	62
Group C.				
	(viii) Number of casual workers	3,821	2,631	1,190
	(ix) Number of workers other than casual who had work in the last 15 days different from their usual work	140	120	20
	(x) Of the workers in (viii) above, the number which took to work other than the usual work, this being of seasonal nature	1,153	721	432
Group D.				
	(xi) Number of non-casual workers who did not do any work during the last 15 days but had work of a nature different from their usual work	1	...	1
	(xii) Number of seasonal workers who changed to casual work but did not do any work during the last 15 days	15	6	9
	(xiii) Number of casual workers who had no work during the last 15 days and were looking for work	136	93	43

LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS

(as on 17 February 1964)

AGARTALA—Laxmi Bhandar Books & Scientific Sales (Rest.)

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.)

AHMEDABAD—
1 Balgovind Kuber Dass & Co., Gandhi Road (Reg.)
2 Chandra Kant Chiman Lal Vora, Gandhi Road (Reg.)
3 New Order Book Co., Ellis Bridge .. .. (Reg.)
4 Mahajan Bros. Opp. Khadia Police Gate .. (Rest.)
5 Sastu Kitab Ghar, Near Relief Talkies, Patthar Kuva, Relief Road .. .. (Reg.)

AJMER—
1 Book-land, 663, Madar Gate .. .. (Reg.)
2 Rajputana Book House, Station Road .. (Reg.)
3 Law Book House, 271, Hathi Bhata .. (Reg.)
4 Vija Bros., Kutchery Road .. .. (Rest.)
5 Krishna Bros., Kutchery Road .. .. (Rest.)

ALIGARH—'Friends' Book House, Muslim University Market .. .. (Reg.)

ALLAHABAD—
1 Superintendent, Printing & 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.)
5 Universal Book Co., 20, M. G. Road .. .. (Reg.)
6 The University Book Agency (of Lahore), Elgin Road .. .. (Reg.)
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. Manjith Mandi .. (Reg.)

ANAND—
1 Vijaya Stores, Station Road .. .. .. (Rest.)
2 Charto Book Stall, Tulsi Sadan, Stn. 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 Depo., 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—Granthilok, Antiquarian Booksellers & Publishers (24-Parganas), 5/1 Amrica Mukherjee Road .. .. (Reg.)

BHAGALPUR—Paper Stationery Stores, D.N. Singh Road .. .. (Reg.)

BHOPAL—
1 Superintendent, State Government Press ..
2 Lyall Book Depot, Mohd. Din Bldg., Sultania Road (Reg)
3 Delite Books, Opp. Bhopal Talkies .. .. (Rest.)

BHUBANESWAR—Ekamra Vidyabhaban, Eastern Tower, Room No. 3 .. .. (Rest.)

BIJAPUR—Shri D. V. Deshpande, Recognised Law Booksellers, Prop. Vinod Book Depot., Near Shiralshetti Chowk .. .. (Rest.)

BIKANER—Bhandani Bros. .. .. .. (Rest.)

BILASPUR—Sharma Book Stall, Sadar Bazar .. (Rest.)

BOMBAY—
1 Supdt. Printing and Stationery, Queens Road
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.)
5 Current Technical Literature Co. P. Ltd, India House, 1st Floor .. .. (Reg.)
6 International Book House Ltd., 9, Ash Lane, M.G. Road .. .. (Reg.)
7 Lakkani Book Depot, Girgaum .. .. (Reg.)
8 Elpees Agencies, 24, Bhangwadi, Kalbadevi .. (Reg.)
9 P.P.H. Book Stall, 190-B Khetwadi Main Road (Reg.)
10 New Book Co., 188-190, Dr. Dadabhai Naoroji Road (Reg.)
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 St. (Reg.)
19 Indo Nath and Co., A-6, Daulat Nagar Borivli .. (Reg.)
20 Minerva Book Shop, Shop No. 1/80, N. Subhas 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 and Co., 3/1, 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, Chowrinhee 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 22 D .. .. (Rest.)
6 Metha Bros., 15-Z, Sector 22B .. .. .. (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 Chukhuwalal .. .. (Reg.)
4 Utam Pustak Bhandar, Paltan Bazar .. .. (Rest.)

DELHI—

1 J.M. Jain & 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 Bookwell 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 .. (Rest.)
22 Tech. & Commercial Book Coy. 75, Gokhale 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 Hindi 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, 5A/10, Ansari Road (Rest.)

DHANBAD—

1 Ismag Co-operative Stores Ltd., 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, Gautham 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 Dept, Patankar Bazar, Laskhar .. (Reg.)
3 M.C. Daftari, Prop. M.B. Jain & Bros., Booksellers Sarafa, Laskhar .. .. .. (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, Bookseller .. .. (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—Swedeshi 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 Pathi, 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, Srinivasapuram (Rest.)

KODARMA—The Bhagwati Press, P.O. Jhumri *Tilaiya, Dt. Hazaribagh* .. .. .. (Reg.)

KOLHAPUR—Maharashtra Granth Bhandar, Mahadwar Road .. .. (Rest.)

KOTA—Kota Book Depot .. .. (Rest.)

KUMTA—S.V. Kamat, Booksellers & Stationers (N. Kanara) .. .. (Reg.)

LUCKNOW—
1 Soochna Sahitya Depot (State Book Depot)
2 Balkrishna Book Co. Ltd., Hazratganj .. (Reg.)
3 British Book Depot, 84, Hazratganj .. .. (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 Lyall 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. Krishnamurty, 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.)

MUDURAI—
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, Chhipi Tank .. (Rest.)
5 Universal Book Depot, Booksellers & News Agents (Rest.)

MONGHYR—Anusandhan, Minerva Press Building (Rest.)

MUSSOORIE—
1 Cambridge Book Depot, The Mal .. .. (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 & 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 Navayug 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. 96, Connaught Place .. (Reg.)
18 Mehra Brothers, 50-G, Kalkaji .. .. (Reg.)
19 Luxmi Book Stores, 42, Janpath .. .. (Rest.)
20 Hindi Book House, 82, Janpath .. .. (Rest.)
21 People 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. B. 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., Bhupendra 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 Rue 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. Natus 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 Bharata Pustak Bhandar, Court Road .. .. (Rest.)
SECUNDERABAD—Hindustan Diary Publishers, Market Street .. .. (Reg.)
SILCHAR—Shri. Nishitto Sen Nazirpatti .. .. (Rest.)
SIMLA—
1 Supdt. Himachal Pradesh Govt.
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 Palaniappa 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 Glob 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—Swarajeya 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., Kathumandu (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 2f, Stuttgart No. 11245, Stuttgart den (Germany West)
4 Shri Iswar Subramanyam 452, Reversite Driv Apt. 6, New York, 27 NWY
5 The Proprietor, Book Centre, Lakshmi Mansions, 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, Ernakulam
14 The Registrar of Companies, H. No. 3-5-83, Hyderguda, 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 & Ajmeri 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, Everst 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 Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi
34 Registrar of Companies, Punjab and Himachal Pradesh, Link Road, Jullundur City
35 Registrar of Companies, Bihar, Jamal Road, Patna-1
36 Registrar of Companies, Raj & Ajmeri Shri Kamta Prasad
37 House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur
38 The Registrar of Companies, Andhra Bank Building, 6
39 Linghi Chetty Street P.B. 1530, Madras
The Registrar of Companies, Mahatma Gandhi Road, West
40 Cott. Bldg. P.B. 334, Kanpur
41 The Registrar of Companies, Everst 100, Marine Drive, Bombay
42 The Registrar of Companies, 162, Brigade Road, Bangalore
43 The Registrar of Companies, Gwalior