



CENSUS OF INDIA 1961  
VOLUME IX—MADRAS

PART VIII-B

ADMINISTRATION REPORT  
(TABULATION)

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*of the*  
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AND

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DEPUTY SUPERINTENDENTS OF CENSUS OPERATIONS

CENSUS OF INDIA, 1961

[Census Report—Vol. IX will relate to Madras only.]

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† The Present Volume.



## FOREWORD

I am very happy to present this Administration Report on Tabulation prepared jointly by Sri P. Murari and Sri J. R. Ramanathan, my Deputy Superintendents. It has the approval of the Registrar-General, India. It has been the tradition of Madras Census to record for the guidance of the successor how data have been tabulated in each Census. It is also useful to know the background of tabulation so that a proper appreciation of the content can be made. In actual practice, tabulation of data in 1961 has proved much more difficult than the Census enumeration. It was because of the comprehensiveness of the Tables proposed. Actually, in 1961, the Registrar-General has devoted more attention to the presentation of Tables than has been done in the past.

Sri P. Murari had experience on the administrative side of tabulation and Sri J. R. Ramanathan was in actual charge of the work in two Tabulation Offices. I, therefore, felt that they would be in a better position to give a proper idea of the enormity of the task involved so that any criticism directed against the shortcomings will be tempered by mercy. The result of the work discussed in this volume will be seen in the volumes of Tables which we have published and will be publishing for Madras State.

I feel the time has come for us to consider the question of introducing the mechanical tabulation in Indian Census ; I hope it will be done in 1971. The experience detailed in this volume will be useful to the proper organisation of Tabulation, whether mechanical or hand, in 1971. I wish to thank my Deputies for having agreed to write this Report. I must also mention the services rendered for Tabulation by my other Deputies Sri S. M. Sulaiman, Sri T. B. Bharathi, Sri A. Gopala Padayachi, Sri C. Gajendran, Sri E. M. Jeyaraj and Sri T. S. Panchapakesan. Sri T. B. Bharathi is still with me. Whatever success has been possible in the implementation of the Census tabulation programme in Madras State has been due to the loyalty and devotion with which these eight Deputy Superintendents, one belonging to the Indian Administrative Service and the others belonging to the Madras Civil Service (Executive Branch), have served me during this Census.

*Madras,*  
14-5-1964.

P. K. NAMBIAR



## PREFACE

We are thankful to our Superintendent, Sri Nambiar for giving us this opportunity to set forth our experience of the Tabulation work. Our problems were many and varied, as detailed in this report. But our work was made easier by our Superintendent who guided us at every stage and appreciated our problems with sympathy. We feel richer in experience after doing this work and we are happy to have been associated with the 1961 Census. We were also fortunate in having an efficient team of Tabulation Officers who assisted us in this arduous work. We wish to record our thanks to Sri D. Ranganathan who compiled the appendices to this volume.

P. MURARI

*Madras,*

Dated 1st June, 1964.

J. R. RAMANATHAN



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# ADMINISTRATION REPORT ON TABULATION

## CHAPTER I

### GENERAL

#### PURPOSE AND SCOPE OF THIS REPORT

1. Contrary to the popular belief that the work of the Census organisation is over with the completion of enumeration and announcement of population totals, enumeration is only the first stage of the work. The second stage of the work *viz.*, tabulation, comprises of sorting out millions of slips to extract the information relating to the diverse demographic and economic characteristics and compiling and tabulating them in the prescribed forms. Unlike in some of the advanced countries where Census data are mechanically tabulated, Census information in India is handsorted and tabulated and this adds to the enormity of the task. This involves employment of thousands of Sorters and Compilers, besides the supervisory staff for effective supervision and frequent check in order to ensure the accuracy of the data. Thus, the tabulation work is equally stupendous in magnitude and perhaps more arduous than the enumeration. In this volume we have described how we set about this task, the difficulties we encountered and how we solved our problems. This administration report is primarily meant for the guidance of our successors. Normally, administration reports on enumeration dealing with the preliminary arrangements made for the Census count and the mechanics of enumeration are elaborate and detailed. But the administration reports on tabulation relating to the previous Censuses have been rather brief. We have made an attempt to present the mechanics of tabulation and the problems connected with it, in adequate detail for we feel that detailed information regarding tabulation is necessary not only for the guidance of the successors but also for the proper understanding of the tables prepared.

2. Four documents were prepared during the current Census, namely, (1) the houselist; (2) the Individual Slip; (3) the Household Schedule; and (4) the Census Population Record. Houselists which contain comprehensive data on the housing conditions in the State, were prepared during October-November, 1960. The other three documents were prepared during the main Census count in February-March 1961. Individual slip, as its name implies, contains information about each of the individuals enumerated. Household schedule contains data on household cultivation and household industry besides other details like the extent of land cultivated, tenure status of the holdings etc. Census Population Record on the reverse of the Household Schedule, gives the particulars like sex, age, marital status of all the members in the household. The Houselists and the Individual Slips were hand-tabulated in our Tabulation Offices whereas the Household Schedule and the Census Population Record were mechanically tabulated at Delhi. We have described the tabulation of houselists in Chapter II and the tabulation of Individual Slips in Chapter III. Chapter IV deals with the tabulation of Household Schedules and Chapter V

with special tabulations relating to some of the special studies we had undertaken. In this Chapter we have outlined the administrative problems of a general nature and the technical problems are dealt in the later chapters.

#### ORGANISATION OF TABULATION OFFICES

3. The first stage in the Tabulation work is the organisation of Tabulation offices. The Registrar-General suggested that one Tabulation Office for every 6 millions of population could be organised. The population of present Madras State, according to 1951 Census was about 30 millions. Allowing an increase of 25%, the population in 1961 was expected to be about 37.5 millions. As such, it was decided to set up 6 Tabulation Offices, one Tabulation Office to sort out slips of two districts. These 6 Tabulation Offices were to be in addition to the Central Tabulation Office attached to the main office at Madras. As the accommodation available at St. Thomas Mount was inadequate, the Central Tabulation Office at Nungambakkam had to take up general tabulation after completing the tabulation of houselists. Thus, a total number of 7 Tabulation Offices were set up in this State. The location of these Tabulation Offices and the slips which they dealt with are indicated in the following statement :

Tabulation office	Slips dealt with	Deputy Superintendent in-charge
1	2	3
1. Central Tabulation Office, Nungambakkam, Madras.	Rural slips of Chingleput District and urban slips of Chingleput, South Arcot, Nilgiris, Tirunelveli and Kanyakumari districts.	Sri T. B. Bharathi.
2. Regional Tabulation Office, St. Thomas Mount, Madras.	Urban slips of Tiruchirappalli, Thanjavur and Ramanathapuram districts.	Sri A. Gopala Padayachi.
3. Regional Tabulation Office, Rayapuram, Madras.	Urban slips of Madras City, North Arcot, Salem, Coimbatore and Madurai districts.	Sri S. M. Sulaiman.
4. Regional Tabulation Office, Coimbatore.	Rural slips of Nilgiris, Coimbatore and Salem districts.	Sri T. S. Panchapakesan.
5. Regional Tabulation Office, Tiruchirappalli.	Rural slips of Tiruchirappalli, Thanjavur, and Madurai districts.	Sri C. Gajendran
6. Regional Tabulation Office, Tuticorin.	Rural slips of Ramanathapuram, Tirunelveli and Kanyakumari districts.	Sri E. M. Jayaraman.
7. Regional Tabulation Office, Cuddalore.	Rural slips of South Arcot and North Arcot districts.	Sri J. R. Ramathan.

Originally, it was intended to allot the urban slips of Madurai and Tirunelveli districts also to the Regional Tabulation Office at St. Thomas Mount, but due to inadequacy of space, the slips were diverted to the Tabulation Offices at Nungambakkam and Royapuram. Thus, the urban slips of the entire State and the rural slips of Chingleput district were distributed between the three tabulation offices located at Madras City and the rural slips of other districts were tabulated by the four tabulation offices situated outside Madras.

4. In 1951, 8 Tabulation offices were organised to deal with 57.24 million slips as against 7 offices to deal with 33.68 million slips in 1961. No doubt, the jurisdiction of Madras State has considerably shrunk after the formation of Andhra Pradesh and the changes due to the States Reorganisation Act, 1956. But the wider range and complicated nature of the Tables that were to be prepared in 1961, more than off-set the gain by reduction in population. In 1951, 21 Tables were prepared and this involved the preparation of 10 Sorters' Tickets and 15 Compiler posting statements. But during the current Census 52 Tables have been prepared and this involved the preparation of 30 Sorters' tickets and 52 compiler posting statements. Besides the increase in the number and scope of the Tables, we had also the tabulation of houselists.

#### LOCATION OF TABULATION OFFICES

5. In choosing places for the location of the Regional Tabulation Offices, we had the following considerations: (1) Availability of suitable buildings in important centres, spacious enough to accommodate the large number of staff we were to employ; (2) Facilities for transporting the Census records from the neighbouring districts; and (3) Availability of staff to be employed in tabulation work.

#### THE PROBLEM OF SECURING BUILDINGS

6. Securing suitable buildings to answer our requirements is really problematic and our Superintendent was alive to this problem even from the beginning. As early as 9-3-1960, he addressed D.O. letters to all the Collectors to help us to secure buildings with plinth areas of about 10,000 square feet. The Registrar-General also agreed to our hiring of the buildings about a month or so in advance of the opening of the Tabulation Offices, provided the accommodation hired was on the basis of austerity scales and that reasonableness of rent in each case was certified by the Public Works Department. The Regional Deputy Superintendents who had just completed the enumeration operations were also on the look out for suitable buildings. Our Superintendent inspected several buildings in the course of his tours and kept in touch with the local revenue officers who were requested to be on the look out for suitable buildings. In Tuticorin and in Coimbatore, we were able to secure suitable buildings with the help of the local revenue officials. In Tiruchirapalli, the then Collector, Sri Gulam Mohamed Badsha helped us in getting suitable accommodation. In Madras we were able to get 2 buildings one at Royapuram and the other at St. Thomas Mount, by direct contact with the

parties. In Cuddalore, the then Collector, Sri S. A. Sundararajan agreed to place the District Board Office building at our disposal. The accommodation, finally released by the successor of Sri Sundararajan was lesser than what was originally promised by Sri Sundararajan. To supplement the accommodation provided by the Collector of South Arcot, we had two sheds constructed in the same compound. The Central Tabulation Office at Nungambakkam which was engaged in the tabulation of houselists was expanded to take up the general tabulation also. In order to accommodate the increased staff, we had a big shed erected by the landlord of the building. The detailed circumstances leading to the selection of these buildings and the problems we had to face in this connection have been detailed in Chapter III and it would suffice here to say that to secure proper accommodation for the Regional Tabulation Offices was one of the major problems we had to face. Fortunately, this did not delay our tabulation programme as we secured these buildings though with difficulty, by the time our tabulation programme was to commence.

#### FURNITURE

7. The next problem that engaged our attention was furnishing of these offices. In 1951, the Sorters were asked to squat on the floor and sort and this was reported to be a success by the then Superintendent, Sri Venkateswaran. The present Registrar-General also seemed to favour this arrangement in view of the economy and he thought that the arrangement would be comfortable to the Sorters. In the beginning, we conducted an experiment in the main office by asking the Sorters to sit and sort. We found that the Sorters subjected to the ordeal of sitting for long hours at a stretch, did not turn out good work. In fact, they expressed a desire to use stools and pigeon hole boxes, so that they may sit comfortably and sort out faster. In this connection, we may recall the observations of Sri J. C. Molony, I.C.S., the Superintendent of Census Operations in 1911, who had said in his Administration Report, "Whatever be the case elsewhere, it is certain that the modern Madrased has lost the art of writing while sitting on the floor. He can do it for a time but soon becomes cramped and sleepy. Any saving effected by denying him a chair is more than counter-balanced by the fall in his work." We were in complete agreement with this view and we informed the Registrar-General about our experiment and stated that we would provide stools and pigeon hole boxes for the Sorters instead of asking them to sit on the floor and sort. In retrospect, we may say that the additional cost involved in getting the stools, which was not considerable, was more than compensated by the good quality of work turned out by the Sorters. We, however, endeavoured to keep down the cost of furniture as low as possible. We acquired only cheap furniture made of country-wood for the Sorters, Compiler Checkers and Supervisors. Each Sorter was provided with a stool measuring 15" x 15" x 18" and a pigeon hole box. The pigeon hole box had 20 holes, 5 rows horizontally and 4 vertically. The pigeon hole was fixed with a stand to the height of

the stool, so that the Sorter could sit on the stool and sort out into the pigeon holes in front of him. Each Sorter was also given two steel boxes for keeping the slips and other records. The Compiler Checkers and the Supervisors were provided with foldable chairs made of country-wood and cheap tables without drawers. The other supervisory staff were provided with armed chairs and tables with drawers. The quantity of furniture purchased and the expenditure incurred have been indicated in detail in the later Chapter.

#### STAFF PATTERN

8. The next problem to engage our attention was the recruitment of staff. We decided on the following staff pattern for each Tabulation Office. Each Tabulation Office was to be headed by a Deputy Superintendent who would be assisted by a Tabulation Officer and a Statistical Assistant in exercising effective supervision and in conducting a thorough check of the data. The Sorters were to be divided into teams, each team consisting of 8 Sorters whose work would be checked by 2 Compiler Checkers attached to the team. Each team was headed by a Supervisor who was to supervise the work of the Sorters and Compiler Checkers and to test-check the sorted out data. The Compiler Checkers were to check cent per cent of the data compiled by the Sorters. We also decided to appoint Tabulation Assistants to supervise the work of a group of teams. Thus, a tabulation team was headed by a Tabulation Assistant and it consisted of 3 or 4 sorting teams, each consisting of 1 Supervisor, 2 Compiler Checkers and 8 Sorters. In allotting the slips to the teams, slips relating to one tract was allotted to one sorting team and wherever tracts were unduly large, it was divided between 2 sorting teams.

#### OUR REQUIREMENTS

9. Having decided on the staff pattern, we had to work out our actual requirements of staff. In 1951, it took 10.4 Sorter months, 2.4 Compiler Checker months and 1.1 Supervisor month to sort and compile 1,00,000 slips. On this basis and on the basis of the complicated nature of the tables to be prepared, it was estimated that it would require 30 Sorter months, 7 Compiler Checker months and 3 Supervisor months to sort out and compile 1,00,000 slips. Our estimation was not far too wrong because on the basis of the actual time consumed, one lakh of slips required 30 Sorter months, 8 Compiler Checker months and 4 Supervisor months. It was debated whether the staff to be utilised for sorting should be increased compared to the earlier Censuses in order to complete the sorting within the time taken during the 1951 Census or whether the time for sorting should be extended and staff requirements restricted. In 1951, the entire sorting operations took about 6 months. With the same amount of staff as employed in 1951, it was estimated that sorting operations this time would require about 18 months in view of the complicated nature and the larger number of tables to be compiled. Indian Census has established a tradition of making the data available as early as possible after the completion of enumeration. On this wholesome consideration, it was decided that the maximum extent to which sorting time could be

stretched would be 9 months. The sorting operations had to commence in April 1961, and it was to be completed by December, 1961, at the latest. So, this policy decision involved the employment of nearly double the number of staff as employed in 1951.

#### STAFF EMPLOYED

10. The statement below indicates the maximum number of staff in each category employed in each of the tabulation offices.

Office	Sorters	Compiler Checkers	Supervisors	Tabulation Assts.	Statistical Assts.	Tabulation Officer
1. Central Tabulation Office, Nungambakkam	170	39	24	5	2	1
2. Regional Tabulation Office, Royapuram	238	86	33	6	2	1
3. Regional Tabulation Office, St. Thomas Mount, Madras	100	26	11	3	1	—
4. Regional Tabulation Office, Tuticorin	205	41	25	5	1	1
5. Regional Tabulation Office, Tiruchirappalli	202	52	25	6	1	1
6. Regional Tabulation Office, Cuddalore	173	38	18	5	1	1
7. Regional Tabulation Office, Coimbatore	198	50	23	5	1	1
TOTAL.	1,286	332	159	35	9	6

This statement requires to be studied with some caution because it indicates only the maximum number employed during the peak of sorting operations. The staff was gradually strengthened in the initial months and it was also gradually reduced with the completion of each stage of the work. The number of Sorter-days, and Compiler Checker-days actually consumed in each of the offices are indicated in the following statement :

Office	No. of slips dealt with	No. of Sorter-days	No. of Compiler Checker-days	No. of Supervisor-days
1. Central Tabulation Office, Nungambakkam, Madras	37,66,562	34,680	9,210	4,560
2. Regional Tabulation Office, Royapuram, Madras	50,35,628	50,620	14,070	8,716
3. Regional Tabulation Office, St. Thomas Mount, Madras	19,39,072	19,896	4,636	2,268
4. Regional Tabulation Office, Tuticorin	45,51,540	35,044	10,640	4,813
5. Regional Tabulation Office, Tiruchirappalli	72,81,896	44,483	12,355	5,982
6. Regional Tabulation Office, Cuddalore	51,70,752	29,458	6,033	3,021
7. Regional Tabulation Office, Coimbatore	59,41,503	41,340	11,430	5,670
STATE TOTAL.	3,36,86,953	2,55,521	68,374	35,030

### SCALES OF PAY

11. The Sorters were paid a consolidated sum of Rs. 110 p.m. in mofussil centres and Rs. 120 p.m. in the Madras City Offices. The pay of the Compiler Checker was Rs. 130 p.m. in the mofussil and Rs. 140 p.m. in the city. The Supervisors in the City were paid at the rate of Rs. 160 p.m. and Rs. 150 p.m. in the mofussil. The Tabulation Assistants were paid in the time scale of Rs. 120—8—200—10—220 plus allowances and the Statistical Assistants in the scale of Rs. 210—10—290—15—425 plus allowances. The deputationists were paid their pay in the parent department plus 20% as deputation allowance.

### RECRUITMENT OF STAFF

12. Having decided on the pattern of staff, we began to recruit the staff early enough so that the staff may be trained sufficiently and be in position by April when the sorting operations were to commence. The Superintendent of Census Operations of 1951 had recommended that Sorters alone should be recruited directly and that other supervisory staff should be taken on deputation from the well established Government Departments. Regarding his experience, the then Superintendent says, "Supervisors were partly drawn from the District Revenue establishments. As Collectors could not spare the full quota of the staff required, the majority of the Supervisors had to be recruited from the respective District Employment Exchanges. These new recruits took more time to understand the instructions and they were less amenable to the discipline and less inclined to work outside the office hours. Their supervision of the work of the Sorters and Compiler Checkers were not satisfactory. The reason why sorting and compilation of tables took a longer time than anticipated in this State, was that more than 50% of the Supervisors were direct recruits who had no previous experience. In order to improve the quality of work in tabulation offices and to minimise the time taken for sorting and compilation, I suggest that my successor for the 1961 Census should request the State Government to issue instructions to the Collectors and other District Officers to spare the entire staff of administrative and technical assistants, Supervisors and Compiler Checkers for each Regional Tabulation Office. Sorters alone should be recruited direct". Whatever be the soundness of this view this recommendation could not be acted upon in practice because the number of Supervisors and Compiler Checkers required by us were too many to be spared from any District Revenue establishment. If these were to be recruited from other departments, it would have depleted the parent departments of a number of experienced clerks and it was also not certain whether the State Government would have readily agreed to give so many clerks. So, we decided to recruit the Supervisors and Compiler Checkers too from the open market but to fill up the posts of other Supervisory staff like Tabulation Assistants, Statistical Assistants and Tabulation Officers by deputation from the other Government departments to the extent possible. Accordingly, we recruited sorters and Supervisors from the open market and the posts of Compiler Checkers were filled up by promoting efficient Sorters after watching their

work for some time. In some ways, direct recruits are preferable because many of these young men and women enter service immediately after their studies and they display the enthusiasm of fresh entrants. It was on their interests to continue in service and to establish a good record which would be useful in securing other Government jobs after their discharge from the Census Department. In retrospect, we find that our experience with the direct recruits was not as bad as in 1951; as a matter of fact, many of them did better than we expected. The qualifications we insisted on for the direct recruits were S.S.L.C. for Sorters and University Degree for the Supervisors. Census sorting, in general, demands some basic educational qualification. Besides this, it requires a working knowledge of English especially during this Census, to understand the sorting instructions and to follow the complicated nature of the tables.

13. For the posts of Tabulation Officers and Statistical Assistants, we were able to get a few qualified persons with statistical background from other Government departments but all the posts could not be filled up by deputationists. Even in the case of Tabulation Assistants, the majority of them were direct recruits who were first appointed as Supervisors. Efficient and hardworking Supervisors were promoted as Tabulation Assistants. Many of the Statistical Assistants were also directly recruited. In the case of Tabulation Officers majority of them were deputationists. Except 2 Tabulation Officers who were Tahsildars of the revenue department, the other Tabulation Officers were taken on deputation from other departments like Statistics Department, Accountant-General's Office etc. Only a couple of Tabulation Officers were direct recruits but they were not appointed as Tabulation Officers in the first instance. They were first recruited as Statistical Assistants and the outstanding Statistical Assistants were promoted as Tabulation Officers.

### MODE OF SELECTION

14. The Sorters and Supervisors were selected through the Employment Exchange located at different centres of the State. Our requirements of staff were intimated well in advance to the District Employment Officers so that they would not be taken by surprise at our large scale demands. The Sorters and Supervisors were selected in 2 or 3 batches. The candidates sent by the employment exchange were first subjected to a written test after which they were also interviewed individually. For the Sorters, the test consisted of a few arithmetic problems in order to test their basic knowledge of arithmetic and their quickness with figures. As sorting and compilation procedure involved handling of figures, we had to select persons who had a basic knowledge of arithmetic and could deal with figures early. For the Supervisors, the test consisted of a few general knowledge questions and their mental alertness was tested in the interview. The marks obtained by each candidate at the written and the oral tests were added up and the candidates were ranked in the order of merit. The required number of Sorters and Supervisors were selected from this list.

15. The majority of the Sorters and Supervisors were selected by our Superintendent, Sri Nambiar who unflinchingly conducted these interviews at the various centres. At times, this imposed a heavy strain on him as it required sitting for long hours at a stretch and interviewing hundreds of candidates. But he took upon this task himself in order to ensure uniformity in selection. During later stages when additional staff was required the interviews were conducted by a Committee of 3 Deputy Superintendents headed by Sri Murari.

16. Fair and equal opportunities were given to both sexes. Even though at first we thought men were ideally suited for this job of sorting, experience has proved that in this arduous work, girls are equally good, if not better. Interviews for the selection of Sorters and Supervisors were held at Coimbatore, Ooty, Cuddalore, Tiruchirapalli, Palamcottah, Nagercoil and Madras, in order to ensure the dispersion of employment opportunities. In one of the interviews men candidates alone appeared though our enquiries revealed that many women were also seeking employment. It was subsequently found out that the Employment Exchange had interpreted our letter literally. Our letter has stated "as regards the qualification, he should possess etc." 'he' in law meant 'he as well as she' and as such our letter implied that both men and women candidates could be sent for the interview. We take this opportunity of recording our appreciation and thanks for the assistance rendered and the co-operation extended to us by the Employment Officers of the various Districts, who sent us batches of candidates as and when we required at short notice. Calling large number of candidates for interviews must have imposed a heavy strain on the Employment Exchanges, but they gladly did that.

#### TRAINING OF STAFF

17. Training of these staff is as important as the selection of proper personnel. It is obvious that no sorting staff can work without acquainting themselves thoroughly with the details of enumeration like the concepts used, the questions asked and the implications of the answers recorded. Unless the sorting staff are familiar with the returns they are to sort out and the methods employed to collect these returns, they cannot be expected to understand the sorting instructions and much less to sort and compile correctly. So, great importance was attached to the proper training of the sorting staff. The first batch of Supervisors of each office were trained centrally in the main office at Madras. For this purpose, the Supervisors were asked to join duty 10 to 15 days prior to the joining of the Sorters, so that the Supervisors may be trained by the time Sorters joined and the former could assist the Regional Deputy Superintendents in training the Sorters. The training programme consisted of a thorough study of the Enumeration Manual as well as the concepts and principles involved in sorting.

18. After about a week's training, during which lectures were given by all of us, the Supervisors were subjected to a stiff test consisting of a written examination and a practical test. The written test helped

us to gauge whether they had grasped the various aspects of the Tabulation and the implications of the Census questions and answers. For the practical test, a few dummy slips with wrong entries were supplied to them and they were asked to rectify the mistakes. In addition, they were also asked to conduct a trial sorting and prepare a few specimen tables. Only a minority of the Supervisors passed in the first attempt and several of them required 2 or 3 attempts.

#### THE PSYCHOLOGICAL FACTOR

19. We insisted on a thorough training and set high standards in the tests, not only to make the Supervisors familiar with the concepts and methods of tabulation but also to create the proper psychological approach, so that they would appreciate the sanctity of the correct classification and accurate tabulation of the material. The psychological factor is very important because it is likely that some of these new recruits may feel that it matters little if a few among the thousands of slips are wrongly classified. Once this attitude is allowed, it will not be long before the carelessness in respect of the few slips spreads to considerable numbers as the sorting operations progress. Thus, proper training of Sorters and the creation of correct attitude to the work among them are of paramount importance. The strict valuation of the test papers and the high standards we set for the Supervisors, indicated our emphasis on the accuracy of the work. These training classes and the tests gave them a clear idea of the nature of the work they had to do subsequently.

20. During this training period, the Supervisors were paid a daily wage of Rs. 5. They were entitled to their pay only if they successfully completed their training. A few Supervisors who resigned during the training period had to refund the money paid to them as well as the expenditure incurred on their travel between their places of selection and Madras City. After the successful completion of training, the Supervisors were sent to the respective tabulation offices by which time, the first batch of Sorters had joined these offices. The Deputy Superintendents in charge of the tabulation offices trained the Sorters on similar lines with the assistance of the Supervisors and the Tabulation Officers. Compiler Checkers were selected from among the Sorters a few weeks after the commencement of sorting, based on the efficiency of their work, their general bearing and their capacity for control. The posts of Tabulation Assistants were filled up partly by promoting senior Supervisors who had worked in house-listing tabulation and partly by the Upper Division Clerks who were taken on deputation from the District Revenue Establishments. Efficient Supervisors were also encouraged by promoting them as Tabulation Assistants. For the promotion of Supervisors to the posts of Tabulation Assistants, the entire State was treated as one unit and Supervisors of one office while promoted as Tabulation Assistants, were posted to other offices, so that the Tabulation Assistants did not have the embarrassment of having to control their erstwhile colleagues.

## STATISTICAL ASSISTANTS

21. With the complicated procedure of tabulation in store, the question of recruiting staff with statistical background and administrative experience engaged our attention. Two or three months after taking over as Superintendent of Census Operations, Sri Nambiar cast his net far and wide to select men with good academic background and aptitude for statistics. Sri P. Vasudhev, a Statistics Graduate, who had put in some years of service in the Statistics Department was taken on deputation to fill in one of the posts of Statistical Assistants. Another post was filled in by Sri D. Ranganathan, an Economics (Hons.) graduate with Statistical background, who was recruited from the open market. These two Statistical Assistants who joined the office as early as May, 1959, were sent to Registrar General's Office at New Delhi for training in sorting, compilation and tabulation procedure, for a period of two months. The slips filled in during the first pre-test conducted by the State Bureau of Statistics, were sorted and tabulated by them along with their colleagues from other States of India. This training was of immense benefit since the services of these Statistical Assistants were utilised for the conduct of second pre-test and for tabulating the data conducted at the pre-test. No doubt, the principles of sorting laid down in the first draft in which these people were trained, underwent considerable alterations consequent upon the revision of the Census questionnaire itself. But this training revealed two important factors, namely, the workload involved in the tabulation work and the difficulties which were likely to crop up during tabulation.

22. We were also able to secure the services of a few more useful Statistical Assistants from other Government Departments. Sri M. Panchapakesan, who had worked during the 1951 Census, was taken on deputation from the Accountant-General's Office. Sri M. K. Subramaniam and Sri K. E. Vaidyanathan of the State Statistics Department and Sri N. Rama Rao of the Food and Agriculture Department are the other useful Statisticians we have with us. Since our requirements could not be met with these few hands, we had also to recruit some Statistics graduates or Arts Graduates with Post-graduate qualification in Statistics, with the help of the University Students Bureau. The outstanding Statistical Assistants were promoted as Tabulation Officers.

## TABULATION OFFICERS

23. In order to encourage initiative and recognise meritorious work, the Registrar-General suggested to the Superintendents that as far as possible the post of Tabulation Officer in the grade of Rs. 350—20—450—25—475 should be filled up by those persons who had already worked in the Census organisation during the houselisting. In other words, the Statistical Assistants and other senior deputationists from the State Government were eligible for promotion as Tabulation Officers. Though this was a wholesome suggestion, it could not be implemented fully in Madras for the obvious reason that there were 7 posts of Tabulation Officers to be filled in and there were

not enough persons with seniority and merit to be promoted and posted to all the 7 posts. Therefore, two senior and experienced Tahsildars who had taken an active part in Census enumeration were posted as Tabulation Officers. Sri V. Dasappan, a Tahsildar of Tiruchirapalli district, was posted as Tabulation Officer, Tiruchirapalli and Sri T. V. Venkataraman another Tahsildar was posted as Tabulation Officer, Coimbatore. The former was subsequently promoted as Deputy Collector and was relieved from the Census Department. Sri Venkataraman who attained superannuation while he was acting as Tabulation Officer was reappointed till the winding up of that office. Sri K. V. Sivasankaran, a retired Deputy Registrar of Co-operative Societies, was appointed as Assistant Superintendent in charge of houselisting tabulation. Sri Vasudhev, Statistical Assistant was promoted and posted as Tabulation Officer, Tuticorin. Subsequently Sri P. Vasudhev was transferred to Madras and Sri G. Chandrasekharan another Statistical Assistant was promoted and posted as Tabulation Officer, Tuticorin. Sri D. Ranganathan was promoted as Tabulation Officer in charge of the general statistical matters and compilation of tables in the main office. Sri M. K. Subramaniam was promoted and posted as Tabulation Officer at Cuddalore and Sri Panchapakesan was posted as Tabulation Officer, Royapuram. The post of Tabulation Officer was not filled up in the Regional Tabulation Office at St. Thomas Mount, since it was felt that the work-load of the office was much less compared to other offices and as such the Deputy Superintendent could manage with the assistance of a Statistical Assistant.

## TRANSPORT OF RECORDS TO THE TABULATION OFFICES

24. Well in advance of the recruitment of the staff we had issued instructions to all the Charge Officers to despatch the records to the concerned Regional Tabulation Offices where they were to be tabulated. While the records were being transported to the tabulation offices, the staff were given training. We were able to synchronise the completion of the training of the staff with the receipt of records in the tabulation offices. We had indicated in our letters to the Charge Officers as to how the records should be packed according to the Location Code Numbers and the offices to which each of the Charge Officers should despatch the records. Detailed instructions regarding the arrangement and packing of records were given to the Charge Officers and they were also instructed to send the details of the records despatched, in prescribed proforma. The individual slips and household schedules relating to each village were bundled together and a block abstract showing the Location Code Number, the number of pads enclosed, number of slips filled in etc., was enclosed along with this bundle.

25. We decided to transport these records to the tabulation offices by lorries rather than by trains. There are some advantages in this form of transport in that it is quicker and safer though it might cost a little more. Further, many of the taluk offices were not situated near railheads and we thought that it would involve much time and labour to transport

records by goods trains. The cost of transport was borne by the Census Department. In the case of Municipal Charge Officers who had insufficient slips to fill a lorry, these officers were asked to contact the Taluk Charge Officers of the area and to despatch the urban slips of that taluk. Though the urban slips were to be sorted in the offices situated in Madras city, the Charge Officers were instructed to despatch both urban and rural slips, packed separately, to the Regional Tabulation Offices. Subsequently, the urban slips were sent to the urban tabulation offices in Madras. This was done in order to check up the records and to ensure that no records were lost or omitted to be sent by the Charge Officers. If any bundles were missing, it was easier for the Deputy Superintendent of the region to contact the Charge Officer and get them, as communication from a far away centre like Madras City would be rather difficult. This arrangement worked satisfactorily and only in one case rural slips were inadvertently sent to the urban tabulation office at Royapuram. In this case, some rural slips were sent in the place of urban slips relating to Kumarapalayam Panchayat. This was promptly detected and rectified.

26. Though the primary responsibility of packing the slips and despatching them by lorries, vested with the Charge Officers, we instructed the Regional Deputy Superintendents to keep in touch with the Charge Officers and to arrange for the transport of records before 21-4-1961. We had also instructed the Charge Officers to send a responsible clerk along with the records, to hand over them in the tabulation office. The records were received in good condition at the tabulation offices in time. In this connection, we would like to recall the experience of the Census Superintendent of 1951 who has recorded, "In spite of clear instructions to Charge Superintendents, the reports received from Deputy Superintendents showed that the records were received in many cases, in a very bad condition. Records in some cases had been mixed up. The enumeration pads of several villages had become loose in transit and got mixed up. The National Registers though bundled in convenient sizes got torn up during transit. There were discrepancies in the list of records sent by the Charge Superintendents. The National Registers in some cases were not accounted for. As a result, much valuable time was wasted in tabulation offices in sorting out records and then checking them up." Our experience was much happier except for stray cases of delay and mixing up of records which are inevitable in such a vast administrative undertaking as Census. No records were entirely lost. A few cases of mixing up of urban and rural slips were detected during the preliminary check of the records and rectified.

#### **VERIFICATION OF RECORDS**

27. As and when the records were received from the Charge Offices they were scrutinised to ensure that all the records have been received from the Charge Officers. With reference to the Charge list, it was first verified whether records relating to all the Location Code Numbers comprised in the Taluk, were received except in the case of uninhabited villages.

This preliminary scrutiny also consisted of the counting of individual slips of each village with a view to ensure that the material despatched conformed quantitatively to the provisional population figures as returned earlier and as recorded in the Block Abstracts enclosed with the records. For this initial scrutiny, each sorting team was allotted with records relating to one tract. In the course of this preliminary scrutiny we were able to locate the missing records. Wherever the number of slips did not conform to the totals recorded in the Block Abstract, we compared the totals of the Census population records and located the missing records. In some cases, the pads relating to one village were inadvertently bundled up with the records of the other village. In a few other cases, the pads were completely missing. There were also a few cases in which the entire records relating to a particular village were not found in the bundles. In such cases we promptly addressed the Charge Officers and in all these cases, they were able to trace the missing records. Some records were inadvertently left in the taluk office in the course of packing. In a few other cases, the Supervisors had omitted to collect all the pads from the Enumerators. The Charge Officers took prompt action in such cases and in response to our letters, they contacted the Supervisors and despatched the records. In one case, there was duplication of slips in that the Enumerator had filled in two copies of individual slips as a measure of abundant caution. The duplicate slips were completely scored out and the error was rectified. Only after this thorough scrutiny, the receipts of records were acknowledged. After this physical verification of records, the urban slips were despatched to the urban tabulation offices at Madras.

#### **SCRUTINY OF SLIPS**

28. The first important work undertaken in connection with the sorting operations was the filling in of omissions and correcting of obvious mistakes in enumeration slips. In spite of unprecedented efforts to train the enumerators in enumeration procedure, several mistakes, though not of a serious nature, and omissions were found in the answers recorded in the enumeration slips. The types of mistakes we came across and the manner in which we corrected them would be dealt with in detail in a later Chapter. But it would suffice here to say that with all our care and with all the goodwill on the part of the Enumerators, certain mistakes had crept in due to incorrect understanding and appreciation of the instructions on the part of the Enumerators. This detailed scrutiny of slips to fill in the omissions and correct the obvious mistakes was taken up as soon as the verification of records was completed. Detailed instructions to fill in the omissions and to correct the mistakes were given to the sorting staff and a Tabulation Manual containing these instructions was also issued from our office to the various regional offices. This detailed scrutiny eliminated much of the confusion which would have otherwise resulted in subsequent stages of sorting operations. The Sorters were given clear instructions that corrections should be made only with the concurrence of the Supervisor and that great care should be taken

to avoid substitution of incorrect entries for correct entries in the enumeration slips. This initial work had to be done carefully and cautiously and it took much of our time. In retrospect, we may say that this work was worth the time spent as it ensured the accuracy of the Census returns. In 1951 report, Sri Venkateswaran has stated as follows regarding this aspect of the work:—

“A lot of time was taken up in checking slips for supplying omissions and rectifying mistakes. This checking had to be taken up at the initial stage when the sorters were but imperfectly conversant with the details of the Census questionnaire and the appropriate answers to each of them. In some cases, the Sorters substituted incorrect answers in the place of correct ones already on record, partly in regard to Questions 9(1), (2) and 10 of the Census questionnaire. The Sorters and other tabulation staff found it difficult to rectify vague answers recorded against Question 10..... It would not be possible for the tabulation supervisor who almost stood in the same position as the sorter at the initial stages to help the sorter. I suggest that the work of initial checking of slips for errors and omissions should, in future, be entrusted to the enumeration supervisors themselves. In addition to the 20% field check of enumeration slips prescribed, the supervisors should be required to make a cent per cent scrutiny of the slips after the completion of enumeration by the enumerators with a view to rectify the defects such as vague entries, omissions and errors. Being the man on the spot, he is the proper person to rectify the defect. He can return the pads containing the defects to the enumerator concerned pointing out the defects/mistakes/omissions and ask him to rectify the defect. In cases where the mistakes or omissions could not be set right without an inquiry, the supervisor can be given 10 days' time to do the work under the general supervision of the Charge Superintendent.”

29. We, however, felt that it would be difficult to ask the Enumeration-Supervisors to correct the mistakes, as recommended by our predecessor. As the man who has to over check the work of the enumerators, the Supervisors should have done it even at the time of revisional round. But, these mistakes were there even after the Supervisors' check. The mistakes in some cases might also be due to inaccurate understanding of instructions by the Supervisors. Further, it was felt that with the present burden thrown upon the Enumerators and Supervisors, it would not be feasible to assign this additional work to the field staff. So we decided that this scrutiny would be done in the tabulation offices. The criticism that the Sorters and Supervisors in the initial stages could not effectively supply the omissions or rectify the defects in the slips, may be true. To obviate this, we subjected the Sorters and Supervisors to a rigorous training in the mechanics of enumeration. Further, during the practical tests conducted for the Sorters and Supervisors, we had given them slips with incorrect entries and omissions and asked them to correct. This rigorous training stood in good-stead

as they had a clear idea as to the types of mistakes to be corrected and the manner in which omissions are to be supplied.

#### RESIGNATIONS BY THE STAFF

30. A problem which faced us at this stage of the work was the frequent resignations of the Sorters and Supervisors. These candidates who were recruited from the open market were aware that Census organisation was a temporary department and that their tenure in the organisation was limited to the time that would be required for completing the sorting and tabulation. So they had been constantly on the look out for other permanent jobs, sometimes with better prospects. As and when they got these appointments, they tendered their resignations. There were a few others who found the work in the tabulation office too arduous and wanted to resign. After spending considerable amount of time and money on training these staff, it was difficult for us to accept all resignations. Each case was reviewed by our Superintendent and wherever it involved improvement in prospects of a particular candidate, we normally did not stand in the way but only insisted that they should refund the amount that was spent on their training. We had also the necessity to hold out threats that they would be debarred from further employment if they stayed away without the prior acceptance of the resignations. To ensure that the staff did not resign on flimsy grounds, we obtained a bond from all the staff recruited subsequently that they would serve the Census Department for a minimum period of 4 months. These measures, to some extent, mitigated the problem, which, however, was not serious enough to affect our time-schedule. We would suggest to our successors that such bonds may be obtained from the staff even at the initial stage of recruitment.

#### SUPPLY OF FORMS

31. The sorting proper was taken up after the detailed scrutiny of slips. Before the sorting operations could commence, the tabulation offices had to be supplied with necessary forms for the preparation of tickets and compiler posting statements. We had to print a large number of forms for the 30 Sorter tickets and 52 compiler checker posting statements that were to be prepared and our Superintendent was alive to this problem sufficiently in advance. As early as April-May, 1961, when the recruitment of staff was going on, we arranged to have the ticket forms and compiler posting statement forms printed. Detailed instructions for the preparation of each ticket and compiler posting statement were to be printed on the reverse of the concerned form. The work involved was quite stupendous and the Madras Government Press helped us in this regard. They were good enough to print the forms in time so that the forms were sent to the Regional Tabulation Offices by the time the sorting was to commence. Some of the compiler posting statement forms did not reach the tabulation offices in time and this was solved temporarily by preparing the posting statements in manuscript, as the number of such forms were few. A list indicating the quantity of forms supplied to each office is appended to this report.



### TENDENCY TO OVER-INDENT

32. We noticed a universal tendency to over-indent for these forms. The Sorters wasted the forms in two ways. Some of them made use of this ticket forms as rough working-sheets; while a few others had the habit of preparing a rough copy of the ticket first and then fair copying it in another form. This wastage was detected in good time and clear instructions were issued to the sorting staff to avoid such wastage of forms. Despite this wastage and the over-indentments from Regional Offices, we did not run short of any forms necessitating reprinting, as we had allowed a certain margin even in our original indent to the Press. These forms were supplied to the Regional Tabulation Offices even while the detailed scrutiny was in progress. This facilitated the commencement of sorting operations immediately after the scrutiny was over.

### TABULATION MANUAL

33. In order to ensure uniformity in sorting and compiling, we prepared after spending considerable time and labour, a Tabulation Manual incorporating the basic principles and salient features of sorting and compilation. Besides the Registrar-General's instructions on the subject, the salient features of Madras State were highlighted in this Manual. As many examples as possible about the difficulties in sorting and detailed instructions as to how the Sorter should handle these slips and how they should be checked by the Compiler Checkers and Supervisors, were given in that Manual. The copies of this Manual were cyclostyled and each office was supplied with as many copies as there were teams in that office, in addition to a few extra copies for the use of the supervisory staff and the Deputy Superintendents.

### SORTING PROCEDURE

34. After the detailed scrutiny of the slips during which obvious mistakes and omissions were corrected, the household schedules were separated from the individual slips and sorting was taken up. The pads were broken and slips taken out loose. Slips relating to one tract or taluk were allotted to a team of 8 Sorters, 2 Compiler Checkers and one Supervisor. For the first 3 tickets in the case of rural slips and 4 tickets in the case of urban slips, the slips had to be sorted separately for each village in the case of rural slips and for each Enumerator's Block in the case of urban slips. The Sorters were asked to take up village by village or Block by Block as the case may be. After completing Sorters tickets 1 to 3 relating to a particular village, the Sorter passed on to the slips of the next village. After sorting out each ticket, the Compiler Checker made a cent per cent check of the Sorter's work and the Supervisors also checked about 20% of the work. This was besides the test-check made by the other supervisory staff like Tabulation Assistants, Statistical Assistant and the Tabulation Officer.

35. In sorting for tickets, each slip had to be handled twice or thrice or even 4 times depending on the characteristics to be cross-tabulated. This involved sorting out each ticket in 2 or 3 stages. We had given

detailed instructions of the sorting procedure, stage by stage, on the reverse of the Sorters ticket. Sorting was fairly slow in the initial stages and in the first 2 or 3 weeks of sorting, a Sorter at the most was able to handle only 3,000 to 3,600 slips per day. This outturn was gradually increased to 5,500 to 6,000 slips per day by the time the sorting operations reached the stage of Sorters Ticket No. 3.

### COMPILATION

36. The Compiler Checkers and Supervisors were also responsible for the preparation of compiler posting statements besides their supervision and checking of the Sorter's work. As and when a ticket was completed by all the Sorters, the posting of Compiler Checker statements was taken up by the Compiler Checkers. Compilation is merely adding up of the Sorters ticket totals and posting them in the prescribed statements. This process of compilation was done contemporaneously with sorting. If compilation is postponed until the sorting of all tickets is completed mistakes may occur in the final totals and at that stage it will be impossible to discover at what point such mistakes originated. If compilation is done contemporaneously, it is easier to locate the mistakes in any Sorters ticket and rectify them, if necessary by re-sorting the slips, before proceeding to the preparation of the next ticket.

37. After preparation of Sorters tickets 1 to 3 in the case of rural areas and Sorters tickets 1 to 4 in the case of urban areas, the compilation of Primary Census Abstract was taken up. From Sorters ticket 5 onwards, the unit of sorting was a tract. Before the commencement of Sorters ticket 5, the slips of all villages or blocks comprised in each tract were mixed up, at the same time keeping the slips of each sex, categories of workers separate. The technical problems connected with this process known as box-making, would be discussed in adequate detail when we describe the mechanics of tabulation.

### CODING

38. For the correct economic classification of the workers, it was decided to assign code numbers to the workers. Two code numbers were given to a worker, one based on his occupation or the type of work and the other based on the industry or field of activity in which he was employed. Though it was our original intention to code only the urban slips, we later on decided to adopt the coding for rural slips too in order to facilitate the correct economic classification of workers. The coding in urban offices was done before the sorting operations commenced but in the rural offices it was done after the Primary Census Abstract was compiled and before the sorting for ticket No. 5 commenced. Since coding was a highly technical branch of work, one or two teams of Sorters were given intensive training in coding before we could undertake this work. The various problems which confronted us in connection with coding are also discussed in detail under the mechanics of tabulation.

### SPEED AND ACCURACY

39. One of the important problems faced in a tabulation office was to maintain the speed at the optimum level without sacrificing accuracy. We had taken several measures to maintain the accuracy of the data like the cent per cent check by the Compiler Checkers, test-check by the Supervisors and surprise checks by the other supervisory staff. The sorting staff who knew that their tenure was temporary had always a tendency to prolong their employment by slowing down the work, the very anti-thesis of what was required *viz.*, speedy completion of sorting and compilation. In order to ensure that speed was maintained without sacrificing accuracy, we had to apply a system of marking to the daily turnover of the staff. This marking system was devised by our colleague Sri T. B. Bharathi and it was adopted in all the Regional Tabulation Offices. The essential features of the system are as follows: The Sorters were assigned marks on the basis of the number of slips sorted per day, also taking into consideration, the number of categories into which the slips had to be sorted. We had stipulated that each Sorter should earn a minimum number of marks per day, which indicated his outturn for the day. This minimum was fixed separately for each ticket. In order to ensure that accuracy was not sacrificed, marks were deducted for any mistakes in the Sorters' work. The mistakes detected by the Compiler Checker, Supervisor and other supervisory staff during their check were listed out and marks were deducted from the total marks earned by the Sorter. The deduction of marks for the second, third and subsequent mistakes of the day was progressively more than for the first mistake of the day.

### PROBLEM OF SUPERVISION

40. Supervision of such a large army of staff engaged in a technical work like sorting in which accuracy was as important as speed was by no means an easy task. The supervision to be exercised in a tabulation office is not akin to the work of a Superintendent in the Secretariat over his clerks; there he has to see that his clerks regularly put up the files and correct the drafts. But the supervision in a tabulation office called for many other qualities which have been very well summed up in an earlier Census report as follows:

"He has to assimilate new work quickly; he has to control the staff of 150 to 200 men who are almost certain to spin out the work if not to give more overt trouble. He has to keep up a steady flow of work and to arrange the functioning of his office so that no man is ever sitting idle while another is overwhelmed with work. A Census Abstraction Office has sorting and compilation running in parallel and in series practically throughout; the staff varies in quality and work in difficulty. To secure freedom alike from congestion and gaps needs discrimination, vision and unremitting attention." Besides ensuring the speedy and correct execution and coordination of different stages of work, maintenance of discipline in such a large office as Census Tabulation Office also requires attention. By and large, the majority of the

Sorters and Compiler Checkers were amenable to discipline and were well-behaved, yet there were undisciplined elements who had nothing more in stake than their temporary job. Such undisciplined cases, which were very rare, of course, had to be got rid of even in the initial stages. For others who did good work we gave adequate encouragement like quick promotions, longer retention in the organisation and payment of bonus as would be discussed in detail later in this report.

### AMENITIES TO THE STAFF

41. As we set high standards of work to the sorting staff, we also endeavoured to provide as many amenities to them as possible. We ensured that adequate number of fans and lights were provided in all the offices. Even in the temporary sheds where ceiling fans could not be fixed up, we provided air circulators instead. At a considerable cost, we provided water coolers in all the offices to supply good and cool drinking water to the staff. Separate lunch rooms were provided for the ladies wherever possible. Wherever coffee hotels were not in close proximity to the tabulation offices, private contractors were permitted to open canteens to supply coffee and light refreshments to the staff. We also encouraged the organisation of magazine clubs and recreation clubs which were financed by voluntary subscriptions from the staff. Magazine clubs were organised in all the offices and a number of journals and weekly magazines were circulated among the staff to be read at home. Recreation is a necessary element especially for the sorting staff who had stiff work from morning 10 to evening 5 with only a lunch break of half an hour in between. Out of the subscriptions collected from the sorting staff sports materials like Tennikoit, Badminton, Volley-ball and Carrom Boards were purchased and facilities for playing these games after 5 p.m. were provided in the office compounds themselves.

### REVIEW OF PROGRESS

42. Review of work is as essential as speedy execution of work itself; and this, the Registrar-General ensured by prescribing fortnightly progress reports to be sent to his office. The progress reports received from various States were reviewed by the Registrar-General and the review notes were circulated to all the Superintendents. This gave the Superintendents an opportunity to know the progress of work in other States and promoted a healthy competition among them. In our turn, we prescribed weekly progress reports for the Regional Tabulation Offices and they were critically reviewed and circulated among the Regional Tabulation Offices. This, in turn, created a healthy competition between the tabulation offices for the speedy implementation of the tabulation programme.

### CONFERENCES

43. Besides the progress reports, we also had periodical conferences of Deputy Superintendents not only to review the work at each stage but also to discuss the various technical as well as administrative problems that confronted us in the course of our tabulation work. It is well said that many tenuous and

difficult problems are speedily resolved over a cup of tea and by an informal chat rather than by lengthy correspondence sometimes tending to be rather acrimonious. Perhaps with this wholesome principle in mind, our Superintendent convened periodical conferences of the Deputy Superintendents after each stage of work. In these Conferences, not only the progress of work was reviewed but also the various problems, both of a routine and of special nature, were discussed and a uniform procedure evolved. These conferences helped us, the Deputy Superintendents, to exchange our experiences with each other and to find solutions to the knotty problems of a tabulation office. Another admirable suggestion mooted by our Superintendent was that these conferences should be held in rotation at the various Regional offices. The first conference was held at Madras, the second one at Cuddalore and the third at Coimbatore. The fourth conference proposed at Tuticorin could not be held; as we had some urgent problems to be discussed, we hurriedly met at Madras for the second time. In retrospect we may say that these conferences not only created a healthy competition among the Deputy Superintendents but also helped them to understand in a wider perspective, the problems of a tabulation office. By these, we were also able to maintain uniformity both in administrative as well as in technical matters.

#### COMPILATION OF TABLES

44. After the sorting work was completed, compilation of tables was taken up. The district tables were prepared in the respective regional tabulation offices and they were sent to the Central Tabulation Office for consolidation of State Tables. The final consolidation of State tables was done at Royapuram Tabulation Office which was converted as the Central Tabulation Office for this purpose. For this work, a separate cell was formed consisting of the most efficient persons picked from the various tabulation offices.

#### EFFICIENCY REWARDED

45. The Census Organisation being a temporary one, it is in the interest of the staff to prolong the work so that they may remain longer in service. It would be a short-sighted policy if in a particular regional office the entire office is closed and staff disbanded after the completion of the work. This would mean that if an office works at the peak of efficiency and completes its work before the allotted time, the staff would suffer by being retrenched earlier whereas the less efficient office by its lethargy would benefit all the staff by being retained longer in service. This anomaly was carefully avoided in Madras State. The entire State was treated as one unit and inter-change of staff was permitted and encouraged at every stage. Whereas Sorters promoted as Compiler Checkers were posted in the same unit, for the higher posts like Tabulation Assistants and Tabulation Officers, the promotions were made treating all the 7 offices as one unit and the promoted Tabulation Assistants were invariably posted to some other offices other than the one in which they worked in a lower grade. Thus, for example if a vacancy of a Tabulation Assistant

arose in the Coimbatore office, the Supervisors of other tabulation offices were interviewed and the most efficient posted as Tabulation Assistant to Coimbatore. This reduced considerable friction and made the staff feel that efficiency was recognised by being retained longer in the service. This excellent principle was followed even at the time of disbanding of offices. The Regional Tabulation Office, Cuddalore, completed its work within the allotted time and was the first to send the tables to the Central Tabulation Unit at Royapuram. At the time of the closure of the office, the least efficient of the staff were retrenched and the others were posted to other offices where work was still going on, subject of course, to their willingness to work outside Cuddalore. A majority of these Sorters and Compiler Checkers were taken to the main office and the Royapuram office. Similarly when the other tabulation offices were closed down the most efficient of the Sorters were transferred to the main office and the Central Tabulation Office. We are happy to record that this principle afforded a strong incentive for the efficient staff.

#### THE PROBLEM OF RETRENCHMENT

46. One important problem which we had to face and which perhaps every Census Superintendent may have to face at some time or the other is the reduction in establishment consequent on the completion of work. If the entire staff is to be retrenched on the completion of all the items of work, the Superintendent of Census Operations may find that he has 1,500 to 2,000 persons dispersed in about 7 Regional Tabulation offices, whereas he would need only 200 people on the whole for the remaining items on hand. Instead of reducing the establishment all of a sudden one fine morning, which would create large amount of unemployment and unnecessary heart-burning, our Superintendent decided on a wiser policy of reducing the establishment gradually on completion of each stage of work. By this gradual reduction in establishment many of the retrenched people were able to find other jobs and the problem of unemployment solved to that extent.

47. In carrying out this retrenchment we decided to give due recognition to seniority and merit. Even before our Superintendent decided to retrench the staff, he had set up a screening committee consisting of Sri Murari as the Chairman and the Deputy Superintendent of the concerned tabulation office as the other member. The Committee interviewed all the staff and graded them into A, B and C. A indicated efficient and bright Sorters, B-mediocre and C. indicated comparatively inefficient. With this graded list on hand our Superintendent retrenched persons after each stage of work. First, all the 'Cs' were retrenched and subsequently the staff position was reviewed and the juniors among the 'Bs' were discharged. This gradual reduction in establishment was carried out smoothly without causing any hardships for large number of people and without creating any serious dislocation in work.

48. Wholesale reduction in establishment disregarding merit and seniority is unfair in principle and creates serious problems in practice. This was

avoided in Madras. The policy we followed enthused the staff in that they began to feel that their merit and seniority were being recognised. Many of the people of exceptional ability, who were graded as A, were transferred to Royapuram and the main office for tabulation of schedules relating to special studies like fertility survey, metropolitan survey, slum survey, socio-economic survey and temple survey.

49. After the retrenchment of staff was carried out in the tabulation offices smoothly, it was inevitable that further retrenchment had to be effected in the main office and in the Central Tabulation Office, Royapuram, as individual items of work were getting completed. The same procedure was followed in retrenching these staff also. Supervisors and Tabulation

Assistants were interviewed by our Superintendent himself and the other subordinate staff by the Committee of Deputy Superintendents. The staff working at Royapuram, St. Thomas Mount and Nungambakkam were treated as one unit and they were screened by a committee consisting of Sri T. B. Bharathi, Sri S. M. Sulaiman and the two of us. The Committee individually interviewed all Compiler Checkers and Sorters and graded them into A, B and C. Here also the reduction was gradually carried out by eliminating all 'Cs' first and then the juniors among the 'Bs'. In view of our experience with this problem of reduction in establishment, we would commend this principle of gradual reduction of establishment based on the merit and seniority of the staff, to our successors.

## CHAPTER II

### TABULATION OF HOUSELISTS

#### OBJECT AND SCOPE OF HOUSELISTS

50. The object of houselisting which was conducted in October-November, 1960, as a preliminary operation to the Census, was to gather particulars about all the buildings and the uses to which they were put, for example, whether they were used as dwellings, factories or workshops. Particulars about the materials used for the construction of walls and roofs, the number of persons living in the house and the number of rooms occupied by them were also collected. The houselist had an industrial bias inasmuch as that particulars about the factories and workshops like the kind of the products, or nature of servicing, the size of employment, the kind of fuel or power used, were also collected. Thus, the houselists provided a complete record of all the buildings in the State including the uses to which they were put. This housing census also gave us an idea of the size of population of Madras State as it existed at the time of houselisting. Five tables prescribed by the Registrar-General were prepared out of the data collected in the houselists.

#### ORGANISATION OF TABULATION OFFICE

51. The tabulation of houselists was centralised in the main office at Nungambakkam. The main office consisting of the administrative staff and the Research Assistants engaged in the various special studies, was accommodated in the building at 19, Nungambakkam High Road. When the decision was taken to centralise the tabulation of houselists in this building, it was first thought that this tabulation unit could be located in the downstairs. The total plinth area of the building is 14,500 square feet and if the out-houses, verandahs which cannot be enclosed, and the bathrooms are excluded, the effective area which can be used for office purposes is only 6,593 square feet. Of this, it was found that a minimum area of 3,437 square feet which covers the entire upstairs portion, was required for accommodating the administrative branches. Therefore, only 3,156 square feet were available for locating the Central Tabulation Office. Since accommodation to the extent of 10,000 square feet was required for the Central Tabulation Office alone, we tried to obtain a suitable building in close proximity to locate this tabulation unit. As no such suitable building was available, we decided to construct some temporary sheds for accommodating this tabulation unit. The factors which prompted us to this decision were the availability of large open space in front of the office building and the consideration that for effective supervision, the tabulation unit should be located as near the main office as possible. We were also emboldened by the fact that this experiment was thought of during 1951 Census by Sri Venkateswaran, though it was dropped later for some reason.

#### CONSTRUCTION OF THE SHED

52. We held discussions with the landlord of the main building for the construction of a temporary shed in

the compound of this office. The landlord agreed to put up a semi-pucca structure and to provide electrical fittings including lights, fans and other amenities to the staff. He also agreed to pave the flooring with cuddapah slabs. In return for these, he demanded the monthly hire charges for the material used in the construction of the shed rather than monthly rent for the shed. We also thought of the possibility of getting a shed erected by the Central Public Works Department, who, however, told us that it would take about 6 months to put up a shed. Even if it was to be erected by the Central Public Works Department, we had still to get the permission of the landlord and he was not willing to give his consent. But he was ready to hire the materials required and construct the sheds immediately. He agreed to meet the cost involved in erecting and removing the shed. He desired to have a monthly hire charges of Rs. 500 for materials used. In view of our urgent requirements and the convenience involved, we accepted the proposal of the landlord who constructed a temporary structure measuring 125' × 40'. The shed was constructed in good time and we occupied it with effect from 1st January, 1961.

#### AUDIT OBJECTION

53. When the tabulation of houselists was in full swing, the Registrar-General, Sri Ashok Mitra, and the Deputy Registrar-General, Sri Natarajan visited this office and went round the sheds. They complimented us on our idea and said that this huge work-shed, airy and spacious, permitting freedom of movement to the Sorters, was an admirable idea and so did we think. The Pay and Accounts Officer, Madras, however, viewed it differently. After allowing the payment of hire charges for a few months, the Pay and Accounts Officer surprisingly sent back a bill on the ground that the payment of hire charges was irregular even though the amount was well within the financial powers of the Superintendent of Census Operations. A reference was, therefore, made to the Accountant-General who chose to agree with the objection raised by the Pay and Accounts Officer. The Accountant-General, however, was good enough to permit the payment but held this item under objection. We had, therefore, to write to the Registrar-General to regularise this item of expenditure. Parallel to this, in another case also, the Pay and Accounts Officer raised an objection for the construction of another temporary shed near the main office building. The details of this will be recounted in the Chapter on General Tabulation.

54. During the test audit conducted by the Accountant-General, they reiterated the audit objection relating to the payment of hire charges to the

landlord. The essence of their objection was that in our original letter to the Registrar-General, we had stated that the main office building would be sufficient to accommodate 300 persons on the basis of which sanction was issued for the payment of rent for the main office building. To this, we issued a reply on the following lines. Consequent on the receipt of houselists and household schedules in the main office, an area of 1,260 square feet was set apart for use as an additional record room, a fact which could not have been foreseen at the time of hiring the building. During the peak period, a total staff of 586 persons worked in the main office and in the Central Tabulation Office. So, additional accommodation had to be found for the staff much in excess of the originally expected strength of 300 persons. Further, owing to the inadequacy of space in the St. Thomas Mount Office, 70 persons had to be diverted to the Central Tabulation Office at Nungambakkam. All these factors could not have been foreseen and as additional accommodation had to be urgently found there was no option but to put up a temporary shed on the lines indicated. Any delay in getting the accommodation would have resulted in unnecessary expenditure to the Government in the form of the pay of staff already recruited and it would have also upset our time schedule. In matters relating to Census, a sense of urgency has always to be displayed. Therefore, it is not possible in every case to write to the higher authorities and to obtain sanction which may necessarily take sometime and we have to anticipate the concurrence of the higher authorities in the matter. The construction of the shed was an unusual step taken by us with a view to secure additional accommodation required for a short period at the minimum cost to the Government. All that we satisfied ourselves was that the amount spent in payment of hire charges was much less than what would have required to hire regular accommodation in the city even if such accommodation was available immediately. It was also much less than what would have cost the Government to construct similar sheds. Further no shed could be constructed over the land without the landlord's agreement as its effective control vested with the landlord. For these reasons, the audit objections were partially modified by the Accountant-General and all that he wanted finally was the sanction of the Ministry of Home Affairs for the payment of hire charges. We explained the position to the Registrar-General and requested him to obtain the sanction of the Home Ministry.

55. As we had to commence the tabulation work towards the end of November, the staff of about 200 persons were accommodated in the Central Hall of the downstairs portion and the verandahs of the main office building. To add to our difficulties came the unprecedented rains of November and December, 1960. But our troubles were over by January by which time the landlord had completed the construction of the shed and the entire houselisting tabulation unit was shifted to the spacious shed.

#### PRECAUTIONS AGAINST FIRE

56. The fear expressed by the Superintendent of 1951 Census that these temporary sheds are inflammable and

there is the danger of valuable Census records being exposed to fire was taken note of and adequate precautions were taken. Proper fire fighting equipment was installed and the staff were trained in fire-fighting. 'No smoking' boards were conspicuously displayed. We had the benefit of the advice of the District Fire Officer, Madras, regarding the precautions to be taken to prevent the out-break of fire. On his recommendation, we purchased 6 Fire Extinguishers from Messrs. Parry & Co., at the rate of Rs. 112.50 per Extinguisher and a dozen buckets at a cost of Rs. 78. Four bucket stands were also purchased at a total cost of Rs. 120. These buckets were filled with sand and water and kept at strategic points. Fire Extinguishers were fixed at suitable places. Members of the staff were given fire drill even in the initial stages and we were prepared for any contingency. Suffice it to say that no such danger was either apprehended nor did it occur during the time the sheds were utilised.

#### FURNITURE AND EQUIPMENT

57. Unlike the general tabulation in which the small slips required the use of pigeon holes by the Sorters, houselist tabulation required tables as the records were long sheets. So, we decided to provide stools and cheap tables without drawers to the Sorters. We also decided to provide folding chairs to the Compiler Checkers and chairs with arms to the supervisory staff. The statement below details the items of furniture purchased for houselist tabulation and the expenditure incurred :

Type of furniture	Rate	Number supplied	Total amount
	Rs. nP.		Rs.
1. Tables without drawers . . . . .	15.00	166	2,490
2. Stools . . . . .	4.50	300	1,350
3. Folding chairs . . . . .	6.50	60	390
4. Rattan chairs . . . . .	23.00	20	460
5. Tables with drawers . . . . .	75.00	10	750
		<b>TOTAL COST</b>	<b>5,440</b>

As this large number of furniture could not be supplied all at once by the Contractors, we had to take some items of furniture like tables and folding chairs on hire from Messrs. S. P. Shanmugham & Co., leading furniture hirers in Madras City. The total hire charges amounted to Rs. 1,780.33 from November, 1960, to February, 1961. The hired articles were returned to the Company in batches as and when the new furniture ordered by us were delivered by the Contractor.

58. In the meantime, the Registrar-General intimated to us that under the general financial powers, the Superintendent of Census Operations had power to purchase furniture up to Rs. 2,500 per annum for each tabulation office. This meant in effect that we could purchase furniture in a financial year to the extent of Rs. 2,500 for the main office and for each of the Regional Tabulation Offices. The Registrar-General suggested that we could stagger the purchase of furniture between 2 years viz., 1960-61 and

1961-62 so that in each year we would not exceed the financial limit of Rs. 2,500 per office. It was possible for us to meet the cost of the furniture ordered from the allotments of the Main Office and the Regional Tabulation Office, St. Thomas Mount. As per the instructions of the Registrar-General, quotations were called from the various concerns for the supply of furniture. Messrs. B. Kanniah Naidu of Komaleeswaranpet, Madras, quoted the lowest rates. They quoted 15 rupees per table without drawers measuring  $6\frac{1}{2}' \times 3\frac{1}{2}' \times 2\frac{1}{2}'$ , Rs. 4.50 for a stool measuring  $3' \times 2\frac{1}{2}' \times 2\frac{1}{2}'$  and Rs. 6.50 for a folding chair made of country-wood. These rates were accepted and the orders for the supply of furniture were placed with this Company.

#### STATIONERY AND FORMS

59. The various items of stationery made available for the houselist tabulation are given in an Appendix to this volume. Indents for the Stationery were placed from time to time with the Controller of Stationery and Printing, Calcutta, who supplied them whenever he had ready stock. However, we had also to indent upon the Controller of Stationery and Printing, Madras, for a number of items urgently required and he readily helped us whenever we approached him. Printing of table forms and compilation sheets also proved a major item of work. Since we required a large number of forms, we could think of only the Government Press to help us. We approached the Government Press for printing of these forms and as usual they obliged us readily. The forms were printed expeditiously and were supplied in good time. Besides the table forms and compilation sheets meant for each table, 3 types of coloured abstract sheets were supplied to the staff. White sheets were used by the Sorters for entering the village totals. Red sheets were filled in by the Compiler Checkers and these were meant for the consolidation of figures compiled in the white abstracts and green sheets were used for final consolidation of tract figures. These three coloured abstracts were printed in order to avoid confusion in the stage of compilation and to ensure that no figures were missed or duplicated at the stage of compilation. In addition to these forms required for compilation and tabulation, forms for progress reports, and check reports were also printed at the Government Press, Madras.

#### STAFF

60. In order to scrutinise the houselist forms and to take up compilation, a large number of persons were required. In Memorandum No. 7749/60, dated 25th November, 1960, the following posts were created in the Central Tabulation Office to attend to the tabulation of houselists.

Supervisors . . . . .	22
Compiler Checkers . . . . .	44
Sorters . . . . .	220

The Sorters and Supervisors were recruited directly from among the candidates sent by the Employment Exchange at Madras. The Compiler Checkers were recruited from among the efficient Sorters after the few initial weeks of works. As indicated earlier, we insisted on S.S.L.C. as the minimum qualification for

the Sorters and a University degree for the Supervisors. These people were selected after a simple arithmetic test and an interview. The Sorters were appointed on a consolidated pay of Rs. 120 per month and Supervisors on a pay of Rs. 160 per month. The Compiler Checkers were paid at the rate of Rs. 140 per month. The quantum of staff employed for the houselist tabulation is indicated in the following statement which shows the strength of staff on the first of each month from December to May:—

Month	Number of Sorters	Number of Compiler Checkers	Number of Supervisors
December . . . . .	191	..	21
January . . . . .	156	37	21
February . . . . .	164	38	19
March . . . . .	154	36	20
April . . . . .	197	39	20
May . . . . .	138	26	12

#### TRAINING OF STAFF

61. We have explained the importance of training the tabulation staff in the first Chapter. The Sorters who were recruited in the first week of November, 1960 were subjected to an intensive training for about 15 days before they were entrusted with the task of abstraction and compilation. They were first directed to study in detail the booklet containing the instructions to the enumerators on houselisting, so that they could understand the various concepts used in houselisting and the implications of the answers recorded. They were also given intensive training in the principles and methods of tabulation. A selected batch of Sorters and Supervisors were trained in Industrial and Occupational classifications and coding. As the Supervisors were to overcheck the work of the Sorters, they necessarily had to go through a stiffer course of training. At the end of the training period, the Sorters and Supervisors were asked to sit for a test which helped us to know whether they had adequate knowledge about the fundamentals of houselisting and the methods of tabulation. Only after these people obtained qualifying marks in the written and practical tests, their training was declared satisfactory.

#### SUPERVISORY STAFF

62. Besides the tabulation staff, we had also to appoint the supervisory staff to check and supervise the work of the sorting teams. Four posts of Tabulation Assistants were created and each Tabulation Assistant was to supervise the work of 4 to 5 sorting teams. 3 posts were filled in by the Upper Division Clerks taken on deputation from the Madras Secretariat and the fourth post by promoting one of the Supervisors. One post of Statistical Assistant was also created. He was to be in-charge of all the teams to guide them in the mode of tabulation to test-check their work and to analyse the results. This post was filled up by a Statistical Assistant taken on deputation from the State Statistical Bureau. He had undergone training at the Registrar-General's office at New Delhi for 2 months before he was posted in-charge of the houselist tabulation. A retired Deputy Registrar of Co-operative Societies was reappointed and

posted as the Assistant Superintendent in-charge of the houselist tabulation from 9-12-1960, in the pre-revised scale of Rs. 250—15—400. No Deputy Superintendent was exclusively in-charge of this tabulation work until Shri T. B. Bharathi took over on 16th January, 1961.

#### MISCELLANEOUS

63. Since the tabulation programme involved compilation of huge and long list of figures, we had decided to make use of comptometers to check the accuracy of the data at each stage. A comptometer was taken on hire at the rate of Rs. 100 per month from Messrs. P. N. Ganeshan & Co., Madras. An Operator for the comptometer was also taken on deputation from the concern on a consolidated pay of Rs. 150 per month. A separate telephone was installed in the Central Tabulation Office. A cycle was also provided for the peons of this office. It has been our firm endeavour to provide the staff with every amenity possible. Besides installing water coolers to supply drinking water, we had also made arrangements to open a canteen. Two rooms in the out-house were allotted for the use of the canteen, free of rent. A sum of Rs. 5 per month was, however, collected from the Contractor towards the cost of electricity and water. Periodical checks were made by the Officers to see that the quality of refreshments supplied was good and the rates charged were reasonable. Since the private Contractors always have a tendency to sacrifice quality for the sake of profits and as the Census Organisation is likely to employ a large number of persons exceeding 200 persons, it would be advisable to start a co-operative canteen and ask the staff members to run it through a Board of management elected from among themselves. This is not likely to take much of their time except an hour or so beyond the office hours. Since they are themselves interested in running the canteen, high quality of food-stuffs could be supplied at reasonable rates. This experiment can be tried during the next Census in the main office as well as in the regional offices. We had also encouraged and aided the organisation of Magazine and Recreation clubs which functioned quite successfully.

#### RECEIPT OF HOUSELISTS

64. Well in advance of the recruitment of staff we had issued instructions to all the Charge Officers and the Regional Deputy Superintendents to despatch the houselists to Madras immediately after the completion of houselisting on 31st October, 1960. The Charge Officers were directed to send one copy of the houselists along with a notional map and a guide to the house numbering blocks. Detailed instructions were given to the Charge Officers regarding the manner in which the houselists should be arranged. We had also instructed them to pack the houselists securely and despatch them by lorries. The Regional Deputy Superintendents who had joined by that time were of great assistance in going round and making arrangements for the despatch of records. The houselists of all the Charges in a district were arranged to be collected in the Collector's office at the District Headquarters unless the charge headquarters was on the

route to be taken by the lorry in which case the houselists were collected *en route*. We had instructed that the houselists should be sent to the Tabulation Office before 18th November. We take this opportunity of recording our appreciation, for the care taken by the Charge Officers in packing the records safely and despatching them promptly. All the houselists were received in good condition at Madras by the end of November.

#### SCRUTINY OF HOUSELISTS

65. The first stage of tabulation programme was the detailed scrutiny of entries in the houselists with the object of correcting obvious errors, glaring inconsistencies and omissions. As a general rule, no mistake or omission was corrected unless it was a *prima facie* mistake and full details were available in other columns for justifying the correction. The types of errors we came across and the manner in which we corrected them are dealt in detail in our report on Housing and Establishments. Suffice it to say here that mistakes and omissions formed only a very small percentage of the total number of entries and the quality of work was of a high order. Even though there were only a few errors, the rectification of these defects at the initial stage itself avoided the confusion which might have otherwise resulted in the later stages of the tabulation work. During this preliminary scrutiny we also arranged the records in proper order to facilitate the tabulation work. The houselists of each primary house numbering unit, for example, ward, locality or block were arranged in the serial order and the records of primary house numbering units within a location code number were also arranged in serial order. The houselists relating to each house numbering unit were stitched into volumes of convenient sizes and the volumes relating to a particular tract were arranged in the order of location code numbers.

#### THE TABULATION PLAN

66. The tabulation plan envisaged the preparation of the following 5 tables from the houselists:—

- Table I . Census houses classified by the uses to which they are put.
- Table II . Census households classified by tenure status.
- Table III . Census houses used as workshops and factories classified according to the industry, kind of power and size of employment.
- Table IV . Census houses used wholly or partly as dwellings classified according to wall and roof materials.
- Table V . Census households classified by number of members and by the number of rooms occupied.

Tables I and III were to be prepared on the basis of full count and the others on the basis of a 20% sample. Tables I, III and IV related to Census houses and Tables II and V to Census households. In addition to these 5 Tables which conformed to the all India pattern, a primary houselist abstract was also prepared in Madras State with a view to get details about the number of Census houses and households, number of establishments, workshops and factories and the number of rooms and the total population.



The tables were prepared separately (1) for the rural areas of the taluk, (2) for urban areas of the taluk and (3) for every town with a population of 50,000 and over.

#### THE MODE OF COMPILATION

67. The unwieldy size of the houselist was not amenable for sorting and hence direct abstraction had to be adopted. There was also a suggestion that the slip copying method adopted for general tabulation in some of the previous Censuses could be adopted with suitable modifications for the tabulation of houselists. This would involve copying out of relevant information on small slips which have again to be sorted out for the preparation of tables. But this was not considered seriously because of the undue labour and cost involved in the procedure. The Registrar-General suggested that the preparation of housing tables could be done by the 'tally method'. This involved the posting of a frequency table on a separate sheet of paper with 2 columns. The first column would indicate the characteristics to be tabulated and the second column provides space for the tally mark. The Sorter should take up entry by entry in the houselist and put a tally mark in column 2 against the appropriate characteristic in column 1. The first 4 tally marks should be vertical dashes and the 5th tally mark should cross out the 4 tally marks, to facilitate quick additions. To ensure the accuracy of the tabulation, the Compiler Checker, Supervisor and other supervisory staff were to follow some method to ascertain whether the tally marks put by the Sorters were correct or not. The only method to over-check the work was to repeat the entire procedure. This problem arose at the time of the trial tabulation. If inconsistency was to be noticed even after such duplication, it may not be clear whether the error had crept in at the original stage or at the checking stage. Hence we decided to follow a modified procedure of abstraction as described in the following paragraphs.

68. Suitable forms for abstraction were devised and direct compilation method of adding up each characteristic in particular page and unit of house-listing and entering their totals in the compilation sheets was adopted. Different procedures were followed for (1) Cities, Urban areas and bigger Villages or Panchayats which were divided into a number of house-numbering units like localities, wards or blocks and (2) for small rural areas in which the location code unit consisted of only one house numbering unit.

#### PROCEDURE FOR BIG ADMINISTRATIVE UNITS

69. In the case of bigger administrative units, the houselists were arranged into a number of volumes, each volume containing houselists relating to a particular primary house-numbering unit *e.g.* ward or locality. A minimum of 3 to 5 volumes were distributed to one sorter so as to enable him to have continuous work. He took up volume by volume and for each volume he added up the enumerator's block totals of the particular characteristic to be tabulated and these totals were entered in the compilation sheets. In the compilation sheet, enumerator's block numbers were entered serially. As soon as the compilation for one enumerator block was completed, the

Sorter passed on that volume together with the corresponding abstract to the Compiler Checker for a cent per cent check. While the checking was being done by the Compiler Checker, the Sorter took up the next volume for compiling the details of another enumerator block. By the time the Compiler Checker and the Supervisor completed the check in regard to the first block of the first volume, the Sorter had compiled another block in the next volume and had it ready for the Compiler Checkers and Supervisors to check. By that time, the Compiler Checker and Supervisor had also returned the checked volume to the Sorter to take up the compilation of the next block. Thus, there was continuous work for the Sorters and the supervisory staff. At the top left hand corner of the compilation sheet, the name and the code number of the District, Taluk, Tabulation unit etc., were entered. Besides these, the Sorters also indicated within brackets whether the particular sheet gives details only for part or for whole of the primary house-numbering unit. At the right hand corner of the compilation sheet, the nature of the area under tabulation was also specified as city/non-city urban/rural. The figures for each enumerator block were added up mentally and recorded in the abstract in the order of the enumerators' block numbers. Totals were struck after all the figures relating to a primary house-numbering unit were completed. These totals were consolidated to give totals of the standard administrative unit.

#### PROCEDURE FOR SMALL ADMINISTRATIVE UNITS

70. If the location code unit was small and was not divided into a number of house-numbering units like wards, localities etc., houselists relating to one village were normally stitched into a volume. A minimum of 15 volumes were distributed to each Sorter for tabulation and all the volumes entrusted to one Sorter had continuous location code numbers relating to one taluk. Before taking up the posting of figures, the Supervisor deputed one Compiler Checker to write the names of all rural areas in the order of the location code numbers in the abstract form. Names of urban areas were not written. However, an indication was made in red ink in appropriate places that a particular location code refers to an urban area. For example, 15-urban: 28 to 32 urban. These entries were compared with the volumes brought from the record room. If no volumes were available for any of the villages, we ascertained if it was an 'uninhabited' village and noted it against the relevant location code number. This also helped us to locate the missing volumes and trace them out. The volumes were then distributed to the Sorters concerned for compiling the figures. The figures for each village were compiled by the Sorters and posted in the abstracts from which the tract figures were arrived at. After a thorough check by the Supervisor the district totals were consolidated. While arriving at the tract and the district totals, the figures relating to the bigger administrative units classified as rural, were also added to these.

#### SAMPLING

71. As indicated earlier, 3 of the Tables *viz.*, Tables II, IV and V were prepared on the basis of 20% sample. The method adopted was as follows: The unit

for sampling was a tract. (1) Each city having a population of 50,000 and above (2) all the rural areas in a taluk and (3) all the non-city urban areas in a district formed separate tracts. Before marking the samples, the houselists were arranged in the order of location code numbers separately for the rural areas of a taluk and for the non-city urban areas of a district. In the case of cities with a population of 50,000 and above, the houselists were arranged in the order of block numbers. As suggested by the Registrar-General, the first sample was selected at random from the first 5 households. From that, every fifth household was selected for the sample. The sampled out household was indicated by a bold red tick marked at the right hand side of column 11. The random start number was varied from tract to tract.

**CODING**

72. Before we commenced the work of compilation we assigned suitable code numbers to all the particulars to be tabulated in order to facilitate easy and accurate classification and tabulation. Extra precaution was taken to see that coding was done correctly for which we had trained a set of coders from among the staff. The types of codes used for each table are indicated with a few examples.

*Table I*

Census houses	Codes assigned
Dwellings . . . . .	A
Shop-cum-dwellings . . . . .	B
Workshop-cum-dwellings . . . . .	C
Hospitals, Hotels etc. . . . .	D
Shops . . . . .	E
Factories registered under the Factories Act . . . . .	G
Vacant houses . . . . .	O

A residuary classification of N was also adopted to indicate those which were not classified under other heads.

*Table II.*—The same codes which were assigned for Table I were also given for Table II. In addition, the tenure status was indicated by employing the following abbreviations, viz., 'O' for owned house and 'R' for rented house. An owned dwelling was indicated by the code 'AO' and a rented dwelling by the code 'AR'. Similarly a owned shop-cum-dwelling was indicated as 'BO' and a rented shop-cum-dwelling as 'BR'.

*Table III.*—The preparation of this table involved a three-fold classification of the establishments, the primary classification being the nature of industry, the second being the kind of fuel or power used and the third being the size of employment. For the classification of the nature of industry, the three digit codes of the National Industrial Classification were adopted. To indicate the size of employment, the following codes were assigned:—

- A—one person
- B—2 to 5 persons
- .....
- G—100 persons and above
- H—persons not stated.

We assigned the numerical codes to different kinds of fuel or power used in the following manner:—

- Electricity—I
- Liquid fuel—II
- .....
- Without power or fuel—V
- Power or fuel not stated—VI

*Tables IV & V.*—For table IV, we assigned numerical codes to the wall materials and alphabetical codes to the roof materials. No coding was necessary for the preparation of Table V and separate working sheets were prepared for the classification involved in this table.

73. As indicated earlier, the coding facilitated easy counting. After we completed the coding of houselists and ensured the accuracy of the same by test checks, we started the compilation work. At the foot of each page, the number of houses under each code was entered. For example, while compiling Table I, if there were 20 Census houses on page 5 of the houselist, they were shown as follows:—

- A—13
- E—1
- K—1
- N—1
- O—4

**PROBLEMS OF CODING**

74. Though coding was meant to facilitate the compilation work and to ensure the accuracy of classification, it also gave rise to certain difficulties mostly out of the ambiguities involved in the classifications adopted for coding. In some cases, 2 codes were found to be appropriate for a particular entry and in a few other cases the entry could not be assigned any of the detailed code numbers but had to be added under the residuary column of 'Others'. Two coders did not agree on a particular code to be assigned and there was also differences between the coding staff and the supervisory staff. These were solved by discussing these ambiguous items at the level of Deputy Superintendent and evolving a uniform approach for all the teams. We have indicated a few cases which gave rise to ambiguous interpretations, below:—

*Temples.*—A doubt arose whether Code L or N should be assigned to the temple *i.e.* whether the temple should be classified as a place of entertainment and community gathering or whether it should be assigned the residuary code of 'others'. Code N appeared to be more appropriate because temple is a place of worship and it cannot be treated as a place of entertainment, even though it is a place of community gathering.

*Photo Studio.*—The doubt was whether to assign Code N (others) or Code E (shops) or Code H (workshop). It was decided to assign Code N because under the Industrial Classification Scheme, a Studio is not recognised as a place where processing is done and photographic and motion picture studios are classified under recreation services and personal services and thereby fall outside the scope of the category of production or manufacture.

*Laundry and Dry Cleaners.*—Here also we included this under the residuary code of 'others' (Code N) rather than assign the Code No. H (a workshop) because laundry did not come under the Standard Industrial Classification.

*Senate Hall.*—This building is situated in Madras City and it is used for Senate meetings, holding of convocations and for the conduct of examinations. The doubt arose whether to assign Code N (others), Code J (educational institutions) or Code L (place of community gathering). We finally decided to treat it as a place of community gathering and assigned Code L.

*Examination Hall.*—It was doubted whether Code J or Code L would be appropriate. Since this examination hall is used not only for the conduct of examinations but also for exhibitions and for holding meetings, we included this under the residuary Code of N.

*Gokhale Hall.*—This is also a multi-purpose building and as such Code N was allotted.

*Advocate's Chamber.*—Code F (offices) was assigned to this rather than Code N as an advocate's chamber is used as an office.

*Fire Station.*—Code N (others) was assigned to this rather than F (offices) as this was not strictly an office.

*Central Station.*—It was argued whether to give Code C (workshop-cum-dwelling) or N. The station has restaurant, retiring rooms and train sheds where repairs are undertaken. It is a conglomeration of various codes. If each were treated as a separate Census house and appropriate codes assigned then only the platforms where passengers embark and disembark would be left to mean a station. So, we classified Central Station in the residuary column and assigned Code N.

*Hotels and Restaurants.*—Hotels refer to eating houses where facilities for lodging also are provided. Restaurants refer to purely eating houses without lodging facilities. In certain cases, the enumerators had simply recorded as 'Cafe' which did not help us to distinguish whether it was a hotel or restaurant. In such cases, column 11 was verified to find out whether any boarders resided in that building, in which case it was treated as a hotel and in other cases Code K (restaurants) was assigned.

75. The list is only illustrative and not exhaustive. Such ambiguities were discussed at the level of the Deputy Superintendents and Tabulation Officers and uniform codes to be adopted by all the teams were decided. In future, it would be better to prepare a comprehensive classification of Industrial Codes for each State taking into account the local conditions. This could be prepared sufficiently in advance by the Registrar-General and communicated to the Superintendents of Census Operations so that uniformity of approach could be maintained in all States. This problem was to be faced at a later stage also during the general tabulation, but by that time, we had learnt a few lessons and it was easier to resolve the ambiguities as far as Industrial Classification was concerned.

#### COMPILATION OF TABLES : FULL COUNT TABULATION : E-I AND E-III

76. The tables were compiled by consolidating the figures in the related abstracts. Table I was compiled from Abstract 1 based on the entries in column 4 of the houselist. Abstract III is the intermediary stage for preparing Table No. III and it related to the entries in columns 6, 7 and 8 of the houselist. It was the most complicated abstract and it had to be prepared with great care. The compilation-procedure for Abstract III differed in most respects from that relating to the other Abstracts. In the case of all other Abstracts, the compilation was done stage by stage *i.e.* from enumerator's block to primary house-numbering unit, and then to the Standard Administrative Unit and finally to the Taluk or the City as the case may be. In the case of Abstract III such intermediary stages were eliminated but separate compilation sheets were used for each of the Industrial Codes.

#### PROBLEMS OF E-III

77. In preparing Table E-III on workshops and factories, the scope of the definition of a workshop or a factory gave rise to some difficulties. A doubt arose regarding the inclusion of Power houses in the Table. A factory was defined as a place where some kind of production, servicing or repair was undertaken by employing labourers. According to this definition, the power houses are to be treated as workshops. But as per the instructions of the Registrar-General, the establishments or workshops with the code numbers 200—399 alone were to be included in Table E-III whereas a power house was assigned Code No. 500. In the first instance, we verified whether the power houses fell within the purview of the Factories Act in which case they should normally be treated as factories for the purpose of this table. We found that power houses came within the purview of the Factories Act. The Factories Act covered all places where dangerous machinery was installed and power houses and cine laboratories were covered by the Factories Act only on account of this factor. However, it was ultimately decided to include only establishments covered by Codes 200—399 under Table E-III for the sake of uniformity of approach.

#### SAMPLE TABULATION—E-II, E-IV AND E-V

78. Table E-II was compiled from Abstract II based on the entries in columns 4 and 14 of the houselist. The procedure for counting the coded entries and posting was similar to that of Abstract I. Table IV was compiled from Abstract IV based on the entries in columns 9 and 10 of the houselist. Here also the procedure for the counting the coded entries was similar to that of Abstracts I and II. Table V was compiled from Abstract V based on the information available at columns 3, 15 and 16 of the houselist. Before preparing the Abstract V, working sheets were prepared separately for households with one room, 2 rooms etc., and totals of these working sheets were entered in the Abstract. Besides these 5 Tables, a special table on the slum areas in Madras City was also prepared. This Table is incorporated in our special report on the Slums of Madras City.

## PROGRESS OF WORK

79. The compilation of the Tables was attended to by 19 teams from the middle of November 1960 up to 4th April 1961 when 6 Supervisors and 60 Sorters were diverted for training in general tabulation. By this time, nearly 75% of the work relating to the tabulation of houselists had been completed. The remaining staff were organised into 12 teams and were entrusted with the remainder of the work. After 15 days, it was felt desirable to train these staff also in general tabulation as they were to take up the general tabulation immediately after the completion of the tabulation of houselists, with the result that houselisting tabulation was attended to only for half a day for about a week. Compilation of Abstracts I, II, IV and V was completed by 29th April 1961 and the data had to be posted in Table forms. A special team consisting of 3 Compiler Checkers and 14 Sorters was formed to attend to the preparation of Abstracts and the compilation of Table E-III. Up to 29th April 1961, nearly 91,998 Sorter hours were spent on these items of work. All the four Tables prepared were checked independently by a team of one Supervisor and 4 Lower Division Clerks in the main office to ensure the arithmetic accuracy and internal consistency. The four Tables were sent to the Registrar-General on 11-9-1961 for approval. Table E-III was completed on 13-11-1961 and it was sent to the Registrar-General on 12-12-1961.

## REVISION OF TABLES

80. The form of Table E-III was modified after the conference of Superintendents of Census Operations held in Delhi in February, 1962. The modifications were effected on the ground that the original form of Table E-III is very unwieldy and would not facilitate proper presentation and printing. Originally there were 56 columns in this Table which presented the data for all types of fuel or power and number of workers in establishments. The nature of each fuel or power and the industrial codes were recorded vertically one below other. But under the revised form of presentation, the Table had only 9 columns and the fuels used were recorded one below the other for each code. This modification made possible the presentation of E-III Table in a compact form but the disadvantage lay in checking the divisional totals. The figures for each type of fuel used under each code had to be posted separately and counted which made the revision a little laborious. However, we recast the Table in the modified form after the Conference.

81. Originally we had given a code for the category 'fuel not stated'. The Tables were also prepared with this column. On a scrutiny of the Tables, it was found that the cases under 'fuel not stated' were very high. This led us to scrutinise the houselists after which it was found that these cases related to industries which did not use any power or fuel and the enumerators had recorded them as 'not stated' instead of recording them as 'without fuel or power'. These were rectified to the extent possible and these cases were shown under the category 'without fuel

or power'. The Tables including the subsidiary Tables were recast on this basis and sent to the Registrar-General for approval.

## APPARENT INCONSISTENCIES

82. When the Table E-I was sent to the Central Tabulation Unit attached to the Registrar-General's office, the Central Tabulation Officer observed that "normally every Census house should have at least one household living in it. But on a perusal of the Madras Table E-I, the number of dwelling houses were in excess of the number of households as found in Table E-II". He wanted us to make a study of this apparent inconsistency and to explain the reasons for the same. In pursuance of this, we took a few sample areas for studying this problem. In Udumalpet of Coimbatore district, there were 5 households occupying more than one house or dwelling, with the result the total number of dwellings exceeded the households by 5. In Circle 3 of Coonoor municipality (Nilgiris District) we found that 765 households occupied 803 dwellings. In this area, it was found that 42 households occupied 2 houses each and 2 households occupied 3 houses or dwellings each. These facts were explained to the Registrar-General who finally accepted our figures.

83. On a comparison of the figures of dwelling houses as found in the Table E-I and the number of residential houses as given in the Primary Census Abstract, the Registrar-General observed that these 2 figures differed and pointed out certain discrepancies. We explained the actual conditions prevailing in Madras State in the following lines :

"In Madras State, there exists an up-to-date and effective house-numbering system. As per this system, a building is defined as a unit which is recognised and given a number. Every building with a separate main entrance is treated as a unit and given a number by which it can be distinguished from outside. A Census house was defined as a unit which is viable and which can be distinguished. It can be used as a dwelling, shop-cum-dwelling, workshop-cum-dwelling or a place of business.

From the above definition, it is clear that a building may consist of one or more Census houses. Therefore, the number of houses may, and normally should exceed the number of buildings. At the time of houselisting, the objective was to count the total number of buildings, houses and households. The number of households was calculated by allotting sub-numbers a, b, c etc., to the Census house number. But at the time of regular enumeration, the building was taken as a unit, our object being only to count the persons living in occupied dwelling. The number of households in the same building were indicated by adding a, b, c etc., to the building number and not to the Census house number. Consequently, the concept of a Census house as adopted in E-I is inapplicable to the Primary Census Abstract. The occupied houses of the Primary Census Abstract refer only to buildings used as dwellings which appropriately, are less than the number of Census houses entered in Table E-I.

In Madras City, for instance, as per E-I, the number of Census houses is 2,19,461 and the number of dwellings as per Primary Census Abstract is 1,47,694. The Primary Census Abstract figure is to be compared not with the Census houses of E-I, but with the number of buildings which is 1,66,960. This refers to the total number of buildings in Madras City and if residential buildings alone are taken into account, this will become perfectly comparable with figures for houses accepted in the Primary Census Abstract. Thus, no anomaly exists between the figures furnished in E-I and the Primary Census Abstract. Further, the figures for the total number of buildings is also exhibited in E-I Table to avoid any misinterpretation of the data by the readers." In view of these facts, the Registrar-General accepted our figures.

84. During the houselist tabulation, we did not have any specific instructions regarding the factory-cum-other purpose buildings like factory-cum-offices etc., for the purpose of preparing E-I. These were therefore grouped in the residuary classification of 'Others' in Table E-I. During the scrutiny of housing tables at the Central Tabulation Unit, New Delhi, they found that the total of columns 7 (workshop-cum-dwellings) and 11 (Factories, workshops etc.) of Table E-I and column 6 (Total number of factories and workshops) of E-III did not tally with each other. Naturally so, as the factory or workshop-cum-other purpose buildings were grouped under column 16 (others) of Table E-I and not under columns 7 or 11 whereas these were entered without exception under column 6 of E-III. The Registrar-General pointed out that even those establishments should come under column 11 of E-I. Consequently, Table E-I was revised in the light of Registrar-General's instructions.

85. According to the original tabulation programme laid down by the Registrar-General, the Census houses used as workshops or factories were to be classified by the nature of industry, power used and the size of employment. So, industries where no power or fuel was used fell outside the scope of these Tables, as it was implied. But we thought it would be useful to tabulate the particulars of workshops and factories where no power or fuel was used. So, we prepared the Abstract III in 2 parts, part 1 dealing with the industries using fuel or power and part 2 dealing with industries where no power or fuel was used. We intimated this to the Registrar-General who commended this modification of ours to the other States for adoption.

86. Again, the original tabulation plan envisaged the preparation of Table E-III up to the taluk level. Figures for each taluk were to be presented with rural and urban break-up. We estimated that our E-III table would run to about 3,000 pages thereby making it a very unwieldy document. We pointed out this difficulty to the Deputy Registrar-General during his visit to our office. The matter was taken up at the Registrar-General's office and orders were communicated sometime in August 1961, that it would suffice to print the figures of Table E-III up to the district level. The Registrar-General however suggested that

the taluk figures could be furnished in the District Census Handbooks of each District. So figures of Table E-III have been presented only up to the district level in the main volume containing the housing Tables. Data relating to the cities with a population of 50,000 and over have also been presented separately for each city. The break-up figures of each taluk are available in the concerned District Census Handbooks.

#### MARKING SYSTEM

87. In order to keep up the efficiency of the staff *i.e.* to ensure the quick turnover of work without sacrificing accuracy, we had devised a marking system as indicated earlier. This also helped to promote a healthy competition between the various teams engaged in the work as the system applied not only to individual Sorters but also to the team as a whole. During our weekly reviews, the performance of the teams were commented upon and our promotions of Sorters and Supervisors also were based on their performance in the teams and the marks earned by them.

88. The details of the marking system are as follows :

For every 100 pages in the houselist, marks were allotted for the preparation of each Abstract as indicated below :

	Marks
Primary Houselist Abstract . . . . .	3
Abstract I . . . . .	2
Abstract II . . . . .	1
Abstract III . . . . .	2
Abstract IV . . . . .	1
Abstract V . . . . .	1
TOTAL . . . . .	10

#### CO-EFFICIENT OF EFFICIENCY

89. Each team was expected to maintain a diary *i.e.* a progress register in which the marks obtained by each Sorter daily, were noted. These registers were also checked by the Tabulation Assistants and the Deputy Superintendent. The total number of Sorter hours taken to compile an abstract for a district by each team was noted. The co-efficient of efficiency of the team was worked out by dividing the total number of marks by the total number of Sorter hours taken. This helped us to assess and compare the efficiency of each team. The co-efficients of efficiency were worked out every week and the teams were ranked. This promoted a healthy competition between the teams to obtain the highest co-efficient of efficiency. We found that it took from 311 to 533 Sorter hours to obtain 100 marks and the average worked out to about 430 Sorter hours. The marking system also took into account the number of mistakes committed for which marks were deducted. We were as much concerned about the accuracy of the data compiled as about the speed of compilation. In certain cases, of course, the number of marks earned did not always prove to be correct index of the work turned

out, as in the case of certain difficult urban tracts which needed detailed scrutiny and the teams obtained mark much less than the others who had done rural tracts. In such cases due weightage was given while reviewing the performance.

#### SUBSIDIARY TABLES

90. Besides the 5 main Tables discussed above, the tabulation plan also envisaged the preparation of subsidiary tables. The subsidiary tables were compiled from the main tables and they were more or less abstracts of the main tables, furnishing the main characteristics in the form of percentages or proportions. For each of the subsidiary tables, working sheets were prepared by the Lower Division Clerks and they were given to the Comptists for working out the proportions as they involved huge figures. After the Comptist had worked out the figures, the Lower Division Clerks and the Supervisors scrutinised these working sheets and rounded up the figures to 2 decimal points. These were fair copied into the final table forms and sent to the Registrar-General for scrutiny and approval.

91. The following subsidiary tables were prepared from the main table :—

1. *E-I(i)*.—Distribution of 1,000 Census houses by vacant houses and different types of occupied houses. This Table was prepared for the Districts, Taluks and Towns with a population of over 50,000.

2. *E-I(ii)*.—Distribution of 1,000 Census houses of different categories in rural/urban areas. Only the 4 main categories of Census houses *viz.*, vacant houses, dwellings, shop-cum-dwellings and work-shop-cum-dwellings have been presented.

3. *E-II(i)*.—Distribution of 1,000 Census households living in dwellings, shop-cum-dwellings, work-shop-cum-dwellings and dwellings with other uses.

4. *E-II(ii)*.—Distribution of 1,000 Census households by types of Census houses and tenure status in urban areas. Since tenure status was considered of importance only in urban areas, this Table was prepared for urban areas alone.

5. *E-III(i)*.—Distribution of 1,000 workshops and factories according to industrial divisions, major groups and selected minor groups.

6. *E-III(ii)*.—Distribution of 1,000 workshops and factories in which machinery is used according to the type of fuel used and the size of employment.

7. *E-III(iii)*.—Distribution of 1,000 workshops and factories in each division, major group and selected minor groups by kind of fuel or power used.

8. *E-IV(i)*.—Distribution of 1,000 Census households living in houses used wholly or partly as dwellings classified by wall materials.

9. *E-IV(ii)*.—Distribution of 1,000 Census households living in houses used wholly or partly as dwellings classified by roof materials.

10. *E-V(i)*.—Distribution of 1,000 Census households according to the number of rooms occupied.

11. *E-V(ii)*.—Number of persons (males and females) per room and persons per household in each category of houses.

92. A special team consisting of one Upper Division Clerk and 4 Lower Division Clerks was in charge of preparing the subsidiary tables. All these tables except the subsidiary tables *E-III (i)*, *E-III (ii)* and *E-III (iii)* were sent to the Registrar-General's office by 12-1-1962 and the 3 subsidiary tables relating to Table *E-III* were sent on 17-2-1963.

#### INSET TABLES

93. Besides this, a number of inset tables were also prepared out of the main tables. These were meant to aid the drafting of the housing report and the discussion of salient features of the housing conditions in Madras State. The salient features of each table have been highlighted in the form of compact and easily comparable inset tables which are discussed in the housing report in detail. The main tables have been published in Part IV-B of our publications. The subsidiary tables and the inset tables are presented in the Housing Report (Part IV-A).

## CHAPTER III

### GENERAL TABULATION

#### SPECIAL FEATURES OF 1961 CENSUS

94. In this Census, an attempt has been made to collect more comprehensive data than in the previous Censuses in view of the growing need for basic data for framing our policies and plans and for assessing the progress. Some of the special features of this Census, like the Houselisting, Household schedule and the special studies are dealt in detail in the other chapters. In this chapter, we propose to deal with the salient features of the individual slip or the main Census questionnaire and the Tables compiled from the returns.

95. The individual slip contained the usual demographic questions like name and relationship to the head of the household for identification, questions on sex, age, marital status and birth place. The migration statistics in the earlier censuses were based on the birth place returns. This was found inadequate for the purpose of studying the qualitative aspect of migration. In view of the growing industrialisation of the country, rural/urban migration takes place in large numbers. In order to make a detailed study of such migration, two new questions have been added in the individual slip this time; one to ascertain the rural or urban nature of the place of birth and the other to ascertain the duration of residence at the place of enumeration. The social questions also follow the usual pattern *viz.*, questions on nationality religion and on special groups like Scheduled Castes and Scheduled Tribes have been included. The literacy or the educational standard as well as the mother tongue and the conversability in languages other than the mother tongue, have also been ascertained.

96. Regarding the economic questions, a significant departure has been made in the concepts for the collection of economic data. In previous years, the economy of the country was measured in terms of income and economic dependence. In earlier Censuses, the population was divided into two categories *viz.*, economically independent and dependent persons on the basis of sufficiency of income to maintain themselves. An intermediary category of economic semi-dependence was also introduced from 1931 Census. This category was called 'working dependants' in 1931 Census, 'partly dependants' in 1941 and 'earning dependants' in 1951. A serious draw-back of this classification was that a strict application of the criterion of income or economic independence did not bring to light those persons who worked in family economic activities without actually earning an income like men other than the head of the household and women and children of the family working at cultivation or in household industries. In order to present a correct picture of the economically active population, the concept of economic dependence was abandoned and stress has been laid on work in this

Census, so that all those who work including the family workers who are not in receipt of any income will be shown as workers. In the previous Censuses, the population was classified into 8 livelihood classes and people in each livelihood class were categorised as self-supporting persons, earning dependants and non-earning dependants. But in this Census, information about all the economically active population has been collected and these have been classified into 9 industrial categories of workers, apart from the non-workers who are shown separately. Non-working population has also been categorised into 8 different groups like students, unemployed persons, dependants etc.

#### PROCEDURAL CHANGES

97. Apart from the changes in the concepts, and introduction of new concepts some significant procedural changes have also been made this time. One of the important changes introduced relates to the sorting of slips for each enumerator's block in urban areas and for each village or panchayat in rural areas. In the 1941 and earlier Censuses, religion was adopted as the basis on which primary sorting and tabulation were done and population classified by religion and sex was given in the village statistics. In the 1951 Census, a significant change was in the presentation of Census data at the village level where economic classification based on livelihood classes substituted the classification based on religion. During the current Census, further refinements have been introduced in the presentation of village statistics. The other important modification made in this Census is that all the general tables compiled from the individual slips are based on a full count unlike in 1951 when Tables relating to age returns, civil condition, literacy etc., were compiled on the basis of a 20% sample.

#### THE TABULATION PLAN

98. The number of tables prepared during the current Census is more than double the number of tables prepared in 1951 Census. This time we have prepared 52 tables as against 21 in 1951. These tables have been presented under different series as detailed below:

1. A series . General population Tables.
2. B series (i) General economic Tables.  
(ii) Household economic Tables.
3. C series . Social and Cultural Tables.
4. D series . Migration Tables.
5. E series . Housing Tables.
6. S.C.T. . Special tables on Scheduled Castes and  
series Scheduled Tribes.

Except the housing tables (E series) and the household economic tables [B(ii) series] which have been compiled respectively from houselists and household

schedules, the other tables have been compiled from the returns in the individual slip. We will now discuss the salient features of each of these series of tables before we proceed to describe the mechanics of tabulation and the technical problems connected with it.

#### A SERIES—GENERAL POPULATION TABLES

99. The four tables presented under this series conform to the pattern of 1951, with the following modifications. In Tables II and IV, variation of population have been given for 60 years instead of 50 years. Percentage variation for each decade is also furnished in these tables. Table III of 1961 relates only to villages while the corresponding table of 1951 related both to villages and towns. The present A-IV Table also differs to some extent from the corresponding table of 1951. In 1951, all towns were shown in A-IV Table including the towns which were treated as villages in any of the earlier Censuses and the population of such towns were furnished with reference to the village statistics. But in the present A-IV Table, only those towns which have been treated as such in all the previous Censuses have been presented so as to maintain comparability. The table corresponding to Table A-V of 1951 Census has, this time, been included under the B-series as Table B (ii) with additional information on age groups.

#### B SERIES—ECONOMIC TABLES

100. The first important table under this series is the Primary Census Abstract which gives the population for each village in the case of rural areas and for each enumerator's block in the case of urban areas along with details about the 9 categories of workers, total number of non-workers, sex break-up etc. The Primary Census Abstract also furnishes the total number of literates and illiterates and the number of Scheduled Castes and Scheduled Tribes in each village. In 1951, the population was classified according to the 8 livelihood classes with sub-divisions of each livelihood class into self-supporting persons, earning dependants and non-earning dependants. As indicated earlier, these concepts have been abandoned this time. This time the workers have been classified according to the following industrial categories of workers :—

Category	I	.	Cultivators.
	..	..	Agricultural labourers.
	..	..	Workers in mining, quarrying, livestock forestry, fishing, hunting, plantations and allied branches.
	..	..	Workers in household industries.
	..	..	Workers in manufacturing industries, other than the household industries.
	..	..	Workers in construction.
	..	..	Workers in trade and commerce.
	..	..	Workers in transport, storage and communications.
	..	..	Workers in other services.
	..	..	Non-workers.

The Primary Census Abstract also furnishes the details of houseless and institutional population for each village unlike the Primary Census Abstract of 1951 where the institutional and houseless population were shown together.

101. Besides the Primary Census Abstract, 17 tables have been prepared under this series, out of which, 9 have been compiled from the individual slips and 8 from the household schedules. The latter are known as 'the household economic tables' and are dealt in detail in Chapter IV. We would confine our discussion here to the general economic tables compiled from the individual slips. In 1951, there were only 7 economic tables and this time, the number of tables are almost doubled. The 1951 Census tabulation covered only the distribution of population by 8 livelihood classes and their sub-division into self-supporting persons, earning dependants and non-earning dependants. There was also a cross tabulation of self-supporting persons and earning dependants with reference to the secondary means of livelihood. Self-supporting persons not engaged in cultivation were classified by divisions and sub-divisions of industries and services according to the Indian Census Economic Classification. There was also cross-tabulation of the 8 livelihood classes by age groups and educational standards. The working population have been classified separately according to the occupation as well as the industry. The Indian Census Economic Classification adopted in 1951 Census was neither an industrial nor an occupational classification but it was a combination of both. There were only 10 divisions and 88 sub-divisions of industries and services. But this time, we adopted the National Classification of industries and occupations followed by the Government, with suitable modifications. There are more than 300 occupational families and industrial minor groups, for which figures have been given separately. To facilitate correct classification according to the occupation and industry and to aid quick tabulation, we coded the slips before sorting. We have cross-classified occupational and industrial divisions by educational standards and in the case of occupational divisions a further cross tabulation by broad age groups had been done.

102. The above tables have been prepared on the basis of the principal work. In the enumeration slips, the principal work of a person engaged in more than one work was indicated by a ring. In the case of persons whose principal work was given as cultivation, agricultural labour or household industry, a cross-tabulation between the principal work and the secondary work has been attempted. Similarly in the case of persons whose principal work is non-household industry and secondary work is household industry, a cross-tabulation between the principal work and the secondary work has been attempted. The non-working population have been classified into 8 groups on the basis of the nature of the activity and in the case of unemployed persons, cross-classification according to sex, broad age groups and educational standards has been done.



103. In 1951, the slips were sorted into 8 livelihood classes from the first sorters ticket itself. This required the sorters to understand the principles of livelihood classification which were somewhat complicated. The slips sorted at the first ticket were to be further sorted for livelihood sub-groups for preparing sorters ticket No. 2. This involved the preparation of a list of common livelihood returns occurring in a district or area, to be supplied to the sorters. The Sorter had to sort the slips of each livelihood class into the livelihood sub-groups according to the list of livelihood returns furnished to him. In this method, the Sorter had to refer to the list frequently and further, he had also to refer to the supervisory staff if the returns in the slip were not identical with the entries in the list or if the answers were expressed in vague terms. This not only made the sorting a time-consuming operation but the accuracy of the classification was also affected to some extent. Any misclassification in the livelihood classes done by a Sorter at the stage of sorting for ticket No. 2 created further complications when that misclassification was located. It involved the transfer of that entry to other livelihood classes which entailed correction of Sorters Ticket No. 1 as well as the Primary Census Abstract. To avoid these difficulties and to ensure proper classification of the workers and to facilitate quick sorting, the returns against the economic Questions 10(a), 10(b), 11(a) and 11(b) were coded before the sorting commenced this time by teams of specially trained Sorters in industrial and occupational coding. A further refinement introduced in 1961 relates to the classification of employment status of workers engaged in industrial categories 3, 5 and 9 into 4 classes *viz.*, employer, employee, single worker and family worker. In 1951, the self-supporting persons of livelihood classes 5 to 8 were classified into employers, employees and independent workers. The concept of family worker was introduced to take into account household workers who were not in receipt of any income.

#### C SERIES—SOCIAL AND CULTURAL TABLES

104. A total number of 8 tables have been prepared under this series. All the tables are based on the corresponding tables of 1951. No table corresponding to Table C-II (livelihood classes by age groups) of 1951 was prepared this time in view of the fact that already broad age groups are furnished in the economic tables prepared this time. Another improvement effected this time is that the age tables are based on a full count unlike the age tables of 1951 which were prepared on the basis of 10% sample of the slips taken out at the initial stages of sorting itself. In fact all the C-series tables except C-I have been prepared on the basis of a full count. Table C-I alone has been prepared on a 20% sample and this table (sizes of households) is based on the Census Population Record. For the age tables, the quinquennial age groups recommended by the United Nations for population censuses, have been adopted. The economic tables have already been prepared by broad age groups. For the age tables, the broad age groups of economic tables will have only to be further sub-divided.

105. In 1951, the languages and dialects were published as they were returned, with the result that

many odd names of ~~spurious~~ languages, most of which could be attributed to mis-spelling or mis-pronunciation of languages, were published with insignificant numbers. But in this Census, it was decided that the language returns should be scrutinised and subjected to a scientific study by a linguist, before they are published. The returns in the language table have been scrutinised and classified by Sri Nigam, Linguist attached to the Registrar-General's Office. The spurious language returns which were mainly the result of mis-hearing and mis-spelling of languages by the enumerators, have been combined with the main languages by the Linguist. Fly leaves in which the language returns have been classified according to Grierson's classification have also been published along with the table on languages.

106. In 1951, information was collected not only on Scheduled Castes and Scheduled Tribes but also on certain special groups like backward classes and Anglo-Indians. But in this Census information has been collected only on Scheduled Castes and Scheduled Tribes. A table giving the total population of Scheduled Castes and Scheduled Tribes and their distribution between the various industrial categories classified by educational standards, has also been included in this series.

107. Another improvement effected in the current Census relates to the detailed classification of literates by their educational standards. The category of partly literate persons adopted in 1951 was abandoned this time as a literate person was defined as one who knew both to read and write. Besides classifying the literate population according to the general educational standards like primary, matriculation, graduate etc. people who possess technical and non-technical diplomas and degrees have been separately shown.

#### D SERIES—MIGRATION TABLES

108. Of the 5 tables that have been prepared under this series, Tables I and II correspond to the tables of 1951 Census. Tables III and V are new tables based on the 2 new questions on migration (the duration of residence and the rural/urban classification of place of birth) introduced during this Census. Table IV is a special table for the cities with a population of over 1,00,000. In addition to these, a special table on the migrants to Madras city has also been compiled.

#### SCT SERIES—SPECIAL TABLES ON SCHEDULED CASTES AND TRIBES

109. In 1951 Census, there were no special tables for Scheduled Castes and Scheduled Tribes except the table giving the total number of persons belonging to the special groups and their distribution among the 8 livelihood classes. A significant departure has been made this time and special tables have been prepared for Scheduled Castes and Scheduled Tribes. Our Constitution has provided for special safeguards for these communities and the Government have launched several welfare schemes for the improvement of the conditions of these communities. We thought that if more detailed information about the Scheduled Castes and Scheduled Tribes are made available, it would not only help to evaluate the progress

that has been made by the members of Scheduled Castes and Scheduled Tribes but also the data may be useful for formulating the welfare schemes in future. In accordance with this decision, 7 special tables have been prepared on Scheduled Castes and Scheduled Tribes. They have been so devised as to give the population figures for each Scheduled Caste and Scheduled Tribe and their cross-classification by religion, age, marital status, education and distribution by the industrial categories. The special Tables I to IV present these data. The Table SCT V, which is based on a 20% sample of the household schedules, relates to cultivating households among the Scheduled Castes and Scheduled Tribes classified by the size of the holdings and interest in the land. The Table SC-I is a special table for Scheduled Castes who are not at work classified by sex, type of activity and the educational standards. The Table ST-I is a special table on the Scheduled Tribes and it presents the distribution of each tribe by mother tongue and bilingualism. ST-II classifies Scheduled Tribes who are not at work according to the type of activity.

110. These, in a nutshell, are the salient features of the tabulation plan implemented during the current census, in the light of which, the mechanics of tabulation to be described below would be appreciated better.

#### FIRST STAGE OF THE WORK

111. The first important work undertaken in the Regional Tabulation Offices in connection with the sorting operations, was the correction of obvious errors and filling in of omissions in the slips. Before we proceed to indicate the corrections and omissions supplied by us, we would briefly indicate the common errors we came across in the individual slips.

(1) Errors were found in noting the Location Code Numbers correctly. In a few cases, the revenue settlement number of the village concerned was entered as the third element of the location code instead of the Census location code number assigned to the village, presumably by the village officers, who were only too familiar with the revenue numbers of the village. But these errors could be rectified with the help of the location code statement in the tabulation offices. (2) The other errors commonly come across was in filling up the question No. 4 (c) relating to the place of birth. For persons born outside the place of enumeration but inside the same district, we had indicated that abbreviation D should be used. But instead, many enumerators had written the names of places without specifying the name of the district. Consequently, the tabulation staff was at a loss to know where the particular place was situated except in the cases of well-known places. The places which could not be located were treated as unclassifiable. (3) There were also inconsistencies between Column 5 (b) relating to religion and Column 5 (c) relating to Scheduled Castes and Scheduled Tribes. Despite the fact that we had instructed the enumerators that Scheduled Castes can come under only Hindu and Sikh religions, many of the enumerators have treated Christians as members of the Scheduled Castes presumably because they were members of that caste

prior to their conversion to Christianity. This, however, did not present any difficulty in correction as we treated all Christians as non-scheduled castes. (4) Although the literacy was defined as the ability to read and write a simple letter, the application of this definition to students of lower standards like I Standard, II Standard and III Standard has not been uniform inasmuch as some people have treated a II Standard boy as literate whereas others have treated a III Standard boy as illiterate. The Standard or class above which a student should be treated as literate, was not clearly indicated in the enumeration manual though a further clarification was issued subsequently.

112. Barring these few errors, the quality of enumeration in filling up demographic and social questions was of high order and even these few errors crept in mostly because of the enumerators' lack of familiarity with the principles of enumeration than out of any difficulty in understanding the concepts. On the other hand, the errors which have occurred in filling up the economic questions seem to have arisen, partly due to confusion over the concepts and definitions. The concept of household industry was not properly appreciated by the enumerators. Confusion between Column 10 and 11 of the individual slip was also come across frequently. Casual labourers employed in allied occupations and jobs incidental to agriculture have been wrongly classified and noted under column 11 (other services) instead of under column 9 (agricultural labourers). In a few cases, the classification of workers for filling up of column 11(c) have been followed in filling up of column 10(c). These errors in filling up economic questions have been committed even by the careful enumerators who have filled up the other portions of the questionnaire correctly. These mistakes however did not present any difficulty in correction as the tabulation staff were acquainted with the principles of enumeration and the interchange of entries between column 9 and 11 was done without any difficulty at the stage of preliminary scrutiny.

#### FILLING IN OF OMISSIONS

113. Apart from these mistakes, there were also omissions in a few columns for which we had followed a uniform procedure. The instructions for filling up of omissions and correcting other inconsistencies are detailed below :

QUESTION 1(b).—*Relationship to head of household.*—Where there is no entry, the person is to be considered as "not related".

QUESTION 2.—*Age last birthday.*—Omissions of age should be left alone and should be treated as "age not stated" for the purpose of tabulation.

QUESTION 3.—*Marital Status.*—If there is no entry, males under the age 21 and females under 16 should be treated as 'unmarried' and all others 'married'. In the case of certain slips containing entries in both the columns relating to marital status and age, it was noticed that the age returned was less than 9 and the marital status was entered as 'married'. Then the person is to be treated as 'not married'.

QUESTION 4(a).—*Birth place.*—Where there is no entry, PL should be written.

QUESTION 4(b).—*Birth place, Rural or Urban.*—When PL is written against Question 4 (a), the birth place is to be treated as rural or urban according as the place of enumeration was rural or urban. A list of places declared as urban was given to each sorter. In other cases, the birth place was to be treated as unclassified.

QUESTION 4(c).—*Duration of residence, if born elsewhere.*—Where there is no entry, it should be treated as duration not stated. Where the answer to Question 4 (a) is P.L., 'X' should be recorded against this question. Where the months and days are also given, the completed years alone need be taken.

QUESTION 5(a).—*Nationality.*—Where there is no entry, the nationality of the other members of the household should be entered. Where there are entries like "Diravidanadu", they should be classified as 'Indian'.

QUESTION 5(b).—*Religion.*—Where there is no entry, the religion of the other members of the same household should be recorded.

QUESTION 5(c).—*Scheduled Castes or Scheduled Tribes.*—Where there is no entry, the omission should be filled in with reference to the answers recorded for other members of the same household. If an entry against Question 5 (b) is other than Hindu or Sikh and Scheduled Caste is recorded against this question, that should be struck out and 'X' recorded here. Where generic names like Harijans, Depressed classes are used, they should be corrected as Scheduled Castes. Where an entry has been made against this question and that particular name does not find a place in the list of Scheduled Castes and Scheduled Tribes then this entry should be scored out and 'X' substituted.

QUESTION 6.—*Literacy and Education.*—Where there is no entry, a person should be treated as illiterate unless the answer to questions 11 and 12 clearly establishes the fact that he is a literate. A person who has just passed first standard could be deemed to be literate.

QUESTION 7(a).—*Mother tongue.*—Where there is no entry, the language of the district should be entered, unless the entries relating to other members of the same household provide a different indication specifically.

QUESTION 7(b).—*Any other language.*—Where there is no entry, the person should be treated as knowing no subsidiary language.

QUESTIONS 8 TO 11.—If no entry has been made, the particular person should be treated as a dependent. But where entries are made against these questions, and the principal and secondary means of livelihood had not been indicated, each slip will have to be treated on merits. Questions 8 to 10 can be checked up with the entries recorded in the household schedule relating to that particular household. Similarly, obvious mistakes recorded against Question 11 are also to be rectified.

QUESTION 13.—*Sex.*—Where there is no entry the sex of the person should be determined from the name and the nature of the relationship recorded in Question 1.

#### THE NEED FOR CAUTION

114. The preliminary scrutiny took considerable time but the work was worth the trouble because it avoided much of the confusion which might have resulted in later stages of sorting and thereby facilitated quick sorting and compilation. The preliminary scrutiny and correction had to be done with a lot of caution in order to see that the correct entries in the individual slips are not substituted with incorrect entries. Wherever omissions were found, the Sorters were authorised to carry out the corrections as per the instructions given above. But in the case of correcting any entry in the individual slip it was to be done only if there was sufficient justification for the correction from the other entries of the slip and only after it had been approved by the Supervisor and the Statistical Assistant. Many doubtful cases were referred to the Deputy Superintendents for solution.

115. In spite of the vigilance exercised, sorting was undertaken in some places immediately on receipt of the schedules by the sorting staff and some corrections were made, which should not have been done, with the result that at tabulation stage they caused a lot of difficulties. In many cases, the slips had to be taken out of the record rooms and scrutinised to detect the errors. It was at this stage that we found out that the corrections made by the sorters who scrutinised the slips had created all the major problems. Curiously enough, most of the corrections were made against Question 5 (c) relating to Scheduled Castes and Scheduled Tribes and they caused considerable amount of difficulties in the preparation of Scheduled Castes and Scheduled Tribes Tables. To quote a few instances, the table showed that about 100 Kadars were living in Nilgiris district. When the returns were scrutinised by Shri T. B. Bharathi, Deputy Superintendent in charge of the preparation of ethnographic notes, he emphatically stated that Kadars could not be found in Nilgiris district. On scrutinising these slips, it was found that they were not Kadars but were wrongly corrected as such. Thus a word of caution for the next Census. The scrutiny of slips is necessary for the correction of obvious mistakes and omissions but this is a double-edged sword and extreme caution is necessary while implementing this. Any correction proposed will have to be approved by a responsible member of the supervisory staff before it is carried out. During the scrutiny, the slips were compared with the entries in the Census Population Record to verify the total number of members in each household. The household schedule was referred to verify the area of cultivation. In a few cases, even though the household possessed no land, either owned or taken on lease, persons were recorded as cultivators instead of as agricultural labourers. Hence reference to the household schedule was found essential.

116. Great importance was attached to the entries of Scheduled Castes and Scheduled Tribes which were checked with reference to the list of names

furnished in the President's Order. Sorting of Tickets 1 to 3 which furnished the basic data for incorporation in the Primary Census Abstract included the collection of particulars of Scheduled Castes and Scheduled Tribes at village level. During this sorting, a few castes which were recognised as Scheduled Castes or Scheduled Tribes only in selected districts were treated as Scheduled Castes and Scheduled Tribes for the entire State. As synonyms of these castes occurred in all districts, it was wrongly assumed by some sorters that they could be classified as Scheduled Castes and Scheduled Tribes in all districts. The figures were also displayed as such in the Primary Census Abstracts. The Registrar-General did not agree with this and hence re-sorting had to be done to locate the slips of these castes and to delete them from the total number of Scheduled Castes and Scheduled Tribes. The percentage of such slips to the total number of Scheduled Castes and Scheduled Tribes was however, negligible being only 0.1%.

#### CODING

117. In view of the important economic concepts adopted and the importance attached to the proper classification of the working population, emphasis was laid on correct coding so as to facilitate correct economic classification. The working population have been classified both according to the particular occupations as well as according to the industry in which they are employed. Among the economic tables, Table B-IV is based on the industrial classification showing the number of persons working in different types of industries and Table B-V indicates the number of persons classified by the type of work or occupation. To illustrate the difference, in Table B-IV, a private medical practitioner is classified under 'other services' whereas a Doctor working in a factory is classified under 'manufacturing services'. In Table B-V which is based on the occupation, both the Doctors are classified under one group. So we gave two code numbers to a worker, one on the basis of the industry and the other on the basis of the occupation.

#### HOW WE DID IT

118. Since it was a highly technical work, we divided the work and occupational coding was done by one set of coders and the industrial coding by another set. For the same reason, a selected batch of Sorters were intensively trained in coding before entrusting this work to them. To distinguish industrial and occupational codes, we chose two different inks *viz.*, red and green for the two codes. To ensure accuracy of coding, we had also devised a system of checks by the Compiler Checkers and the Supervisors. In spite of the utmost caution exercised, there were mistakes in coding arising mainly out of the ambiguous nature of the classification. For the guidance of the coders, we had supplied them booklets supplied by the Registrar-General's office in which the code numbers have been arranged according to the major groups and families. In addition to this, we had also prepared an alphabetical list for easy reference by coders and this list was further amplified by adding some of the important occupations which were commonly

come across in Madras State. The columns 10(a), 10(b) and 11(a) and 11(b) were coded for the industry and the occupation.

#### MISTAKES IN CODING

119. As indicated earlier, we took the decision to code the rural slips also a little late. Our original intention was to confine coding to urban slips alone which were coded before the sorting commenced. But in the case of rural slips, the sorting had commenced for many of the tracts and they could be coded only after the preparation of primary census abstracts. In the case of tracts for which the sorting had not commenced, we coded them before sorting. Some mistakes in coding occurred in the rural slips. The primary classification of population into 9 industrial categories is made during the first 3 sortings and these categories are kept in tact till the sorting operations are completed by preparing Sorters Ticket No. 29. The classification of slips into the 9 industrial categories should also tally with the code number assigned to the particular slip *i.e.* the particular code number assigned to the worker should belong to the category into which this slip has been sorted. If the code number and the category do not tally the mistake can be of two kinds. The mistakes in coding may be in assigning the minor group number. For example, if a code number 863 is assigned in the place of 842, the mistake is only in the case of assigning the family number and both these code numbers will belong to the same category. As such, if any mistake in assigning the code number relating to the minor group had occurred, it involved only the correction of code number and it did not involve the correction of category resulting in the transfer of figures from one of the 9 categories to the other. On the other hand, if the mistake in coding related to a major group number, it set in motion a chain of corrections. For example, if a doctor in a textile factory had been assigned code No. 820 instead of 232, this will involve a correction of the Primary Census Abstract in the sense that the figures under 'other services' have been reduced by one and added to the figures under 'manufacturing'. Such type of mistakes in major group numbers set in motion a chain of changes in the figures relating to all the tickets which involve the classification of workers into 9 industrial categories. In the case of slips which were coded before the sorting operations commenced, the major mistakes could be avoided in the sense that Sorter while sorting the slips into 9 broad industrial categories could do so with the help of the code number. In such cases, mistakes did occur in assigning minor group numbers but this did not involve the correction of figures between the 9 industrial categories.

#### AMBIGUOUS CLASSIFICATIONS

120. Several other mistakes occurred mainly out of the ambiguous nature of the classifications. We furnish hereunder a few examples of the ambiguous classifications which gave rise to the mistakes in coding :

*Industrial Code.*—The entry 'MAN VETTUTHAL', *i.e.* digging of sand or mud is an occupation likely to appear in road laying, construction of buildings

or dams or even in agriculture. Another instance was 'KAL UDAITHAL' *i.e.* breaking of stones. Now this particular occupation could be undertaken in a quarry or in the laying of roads or in the construction of buildings. The first comes under the category of mining whereas the others come under construction. Such cases had to be decided mainly in relation to the place of enumeration with reference to the location code. In Nilgiris district, schools run by the Estates were intended mainly for the children of estate workers. Therefore, the schools come under the category of estates for which a code had to be assigned in relation to whether the estate was a tea or coffee plantation. Such cases were originally coded as 811 *i.e.* regular educational institutions, but subsequently they had to be corrected as 010. Another entry which gave rise to doubts was "General Labourer" which had to be classified under Code No. 899. Strictly speaking, these persons, especially in rural areas belong to the agricultural sector doing odd jobs in the field and work as and when they are called upon to do so. Therefore, it would have been better if in such cases they had been classified as agricultural labourers or had been assigned a separate code.

*Occupational code.*—In some cases, the entry in the enumeration slip was "shop assistant" for which occupational codes 339 and 330 are applicable. Generally, 339 was adopted and Code No. 330 was given where it was specifically stated whether the trade conducted was retail or wholesale. The occupational classification does not provide separate code number to denote the administrative staff who do not come under the higher category of administrative officials. An ordinary Inspector of a Co-operative Society in the State Government had to be allotted the same code number as the one assigned to a senior administrative officer like the Collector or the Revenue Divisional Officer under the State Government. The pay and status of the former stand no comparison with that of the latter and it is not appropriate to classify them under the same code. Difficulties were encountered in assigning code numbers to entries like wood cutting in a firewood shop, gathering of wood in a forest, cutting of trees, shoe making, shoe repairing, cobbler, cycle hiring and repairing, petty shop, and selling of tea with cigarettes etc. These are a few instances to illustrate the fact that there is scope for further refinement and improvement of the occupational classification.

#### RECTIFICATION OF MISTAKES

121. During the inspection of some of the Regional offices by the Deputy Registrar-General and our Superintendent, a number of coding defects in occupational as well as in industrial codes were come across. This, as was later on revealed, was mainly because of the different interpretations given by different officers in the Tabulation Offices. In Trichy Tabulation Office, coding was done by every team instead of getting it done by a selected team of coders. Many of the mistakes could be attributed to allowing Sorters in all the team to do the coding with the result that each team assigned a particular code which appeared to them

to be appropriate. In order to correct these errors and to bring about certain uniformity in the codes assigned, we sent out expert teams of coders from the main office to do a percentage check of the coding in each regional tabulation office. The crack teams were headed by Tabulation Officers and consisted of one Upper Division Clerk and 3 or 4 of our expert coders. They made a percentage check of the codes assigned in the office and if the mistakes were too many, they made a cent per cent check of the particular tract. On the basis of their checks they prepared a list of mistakes come across and the regional office concerned was asked to carry out the corrections in all the other tracts. As a result of these corrections, certain uniformity was brought out in the codes assigned in all the offices though this led to a series of corrections in the tickets and in the Primary Census Abstract. Fortunately by this time we had not finalised the Primary Census Abstract and sent it to the Registrar-General. They were just being copied out for being sent to the Registrar-General. So, we were able to carry out all these corrections and finalise the Primary Census Abstract after ensuring the accuracy of the code numbers assigned.

#### MECHANICS OF SORTING

122. The first stage of sorting which culminated in the compiling of the Primary Census Abstract consisted in the preparation of the first three sorter's tickets. The primary unit of sorting for rural areas was the village or panchayat which had been allotted a separate location code number and for urban areas, the unit of sorting was an enumerator's block. The sorters took up the pads relating to one village or a block at a time and prepared the tickets 1 to 3 in the case of rural areas and tickets 1 to 4 in the case of urban areas before proceeding to the next village or block. The first task enjoined upon the Sorter was to count the number of occupied houses and households. The figures obtained by counting individual slips were cross-checked with the number of household schedules. These figures were also cross-checked with the entries in the enumerator's block abstracts and wherever the latter were found to be incorrect they were corrected. The next item of work was to ascertain the number of houseless persons and institutional population and posting them in Sorters ticket No. 1. The houseless persons were counted from the individual slips. The identification of entries relating to houseless persons was easy as the identification mark of 'O' was given. In a few cases, we found that the digit relating to the house number in the location code was blank and this gave rise to the doubt whether it indicated the houseless population or the people living in a house without a house number. In cases of houses without numbers, we had clearly instructed the enumerators to indicate it by 'X' mark and to indicate the houseless population by 'O'. Despite the clear instructions, there were omissions in this regard. This, however, did not present any serious difficulty since the household population living in houses without numbers could be cross-checked with the entries in the household schedule which was prepared for all the households irrespective of the fact that whether the house bore a number or not, but no household schedule was prepared

for the houseless population. This difficulty, however, points to the necessity of devising clear identification marks for houseless population and household population without house numbers. Though the percentage of such omissions to the total number of slips were negligible, we would still suggest a further improvement of identification of marks. The institutional population by which we mean those persons living in institutions such as hostels, hotels, boarding houses, jails, asylums, hospitals were counted from the household schedule and the Census Population Records as the institutions were clearly marked in the household schedule. The entries in the Census Population Record were also cross-checked with the figures obtained from the individual slips. The identification mark in the individual slips for institutional population was the entry against question 1 (b) where the institutional population were indicated as unrelated persons.

123. After abstracting the figures relating to the institutional and houseless population, the individual pads were broken and the slips were sorted for Sorter's ticket No. 1 which required sorting into males and females and Scheduled Castes, Scheduled Tribes and others. The slips were then sorted into literate and illiterate categories for Sorter's Ticket No. 2 and finally into the 9 industrial categories of workers and the 10th category of non-workers for Sorter's Ticket No. 3. Up to this ticket, the slips relating to individual villages were kept separate since in the Primary Census Abstract figures were to be given for each village with a separate location code number.

124. The same procedure was adopted for urban areas. The enumerator's block was treated as a unit of sorting and the slips were sorted for tickets 1 to 3 in a similar fashion. An additional ticket viz., Sorter's Ticket No. 4 was prepared for the urban areas and this gave the 9 categories of workers classified according to the age groups. This gave figures for the preparation of Table B-II for the urban areas.

#### COMPILATION OF PRIMARY CENSUS ABSTRACT

125. The Primary Census Abstract was compiled from the first 3 tickets. The target date fixed by the Registrar-General for the submission of the Primary Census Abstract was 31-7-1961. But this date could not be adhered to because of our difficulties in coding. We wanted to ensure the accuracy of the figures before sending the Primary Census Abstract. Though the Primary Census Abstracts were submitted by all the regional offices by the middle of July 1961, we had not forwarded them to the Registrar-General, as in the meantime we came across mistakes in coding. As indicated earlier, we sent out crack teams from the main office to do a thorough recheck of the coding and correct all the mistakes. Registrar-General required 5 copies of the Primary Census Abstract and the preparation of 5 copies entailed much time and labour. We were, however, able to send all the Primary Census Abstracts by the end of December 1961.

#### BOX MAKING

126. The unit of sorting from ticket No. 5 onwards was a tract both for rural as well as urban areas. After the completion of tickets 1 to 3, the rural slips

of all the villages in a tract were mixed together, and so also the urban slips of all the blocks in a tract. While mixing these slips, the sorted out categories of workers, literates and illiterates and slips relating to males and females were kept separately. Thus, the slips relating to each village were kept in 40 bundles in the case of rural areas and about 160 bundles in the case of urban areas where the slips of age groups were also kept separately. The bundles of a specified category of all the villages or blocks were taken together and mixed. For example, the bundles relating to male literate cultivators of all the villages were mixed together and kept in a separate bundle and so also the slips relating to the male illiterate cultivators and female literate and illiterate cultivators. Thus, the slips of all the units in a tract were mixed together at the same time keeping apart the categories into which the slips had been sorted. Slips relating to the males and females were put in separate boxes. While allotting the slips for further sorting, we allotted the slips relating to one particular category to a sorter as far as possible. He was given 2 boxes of slips, one containing the male slips of that category and the other containing the female slips of that category. Wherever the number of slips in a particular category were too many, we allotted the male slips to a Sorter and female slips to another Sorter. Wherever the number of slips in a particular category like mining and quarrying or manufacturing services were too small to be allotted to a Sorter, we allotted more than one category to a Sorter. In such cases, the Sorter took up one category and sorted out tickets 5 to 29 before taking up the other category of slips. In some of the offices, the tickets for all the categories allotted to a Sorter were prepared simultaneously one after the other.

#### FURTHER SORTING

127. This process of mixing the slips of all the units in a tract keeping apart the various categories and arranging them in boxes before allotting the slips to the Sorters was known as 'Box Making'. On an average about 20,000 to 25,000 slips were allotted to a Sorter for the preparation of Sorter's tickets 5 to 29 which was completed. It would be superfluous to set down in this volume, stage by stage, every operation connected with the preparation of Sorter's Tickets 5 to 29. These have been admirably explained in the sorting and compilation instructions issued by the Registrar-General. We do not wish to cover the same ground once again and we only propose to set out the salient features of the sorters tickets.

*Sorter's Ticket 5 (a).*—This ticket was prepared only for the urban slips and it was taken up immediately after the box making. The slips were sorted into five year age groups and the slips relating to the literates were sorted into the following educational standards.

1. Literates without educational standards.
2. Primary or Junior Basic.
3. Matriculation or higher secondary.
4. Technical Diploma not equal to a degree.

5. Non-technical diploma not equal to a degree.
6. University degree or post-graduate degree other than technical diploma.
7. Technical diploma or degree equal to a degree or post-graduate degree in:
  - (a) Engineering
  - (b) Medicine
  - (c) Agriculture
  - (d) Veterinary and dairying
  - (e) Technology
  - (f) Teaching and
  - (g) Others.

*Sorter's Ticket 5 (b).*—This was prepared for rural slips and the slips in each category were sorted according to the 5 year age groups, as in the case of *Sorter's Ticket 5 (a)*. The slips relating to literates were sorted only into 3 categories of literates without educational standards, primary or junior basic and matriculation and above unlike the urban slips which were sorted into detailed educational standards.

*Sorter's Ticket 6.*—This was one of the most complicated tickets to be prepared and this was prepared only for urban slips. The slips of literates relating to industrial categories III, IV, V, VI, VII, VIII and IX were sorted according to the 10 occupational divisions and the resultant figures were posted in *Sorter's Ticket 6*.

*Sorter's Ticket 7.*—After *Sorter's Ticket 6*, the slips of different educational standards were grouped together but the age-groups were kept intact. They were then sorted out for marital status into the categories of 'never married', 'married', 'widowed', 'separated or divorced' and the resultant figures were posted in *Ticket No. 7*.

*Sorter's Ticket 8.*—For the preparation of *Sorter's ticket 8*, the age-groups were further sorted into single year ages from 0 to 100. The actual ages returned in the slips for all figures above 100 were also recorded in this ticket.

*Sorter's Ticket No. 9.*—This was prepared for slips of industrial categories III, V, VI, VII, VIII and IX. The slips were sorted according to the National Industrial Classification Code—Major and Minor groups. They were also sorted for employment status, *viz.*, whether a person was employer, employee, a single worker or a family worker.

*Sorter's Ticket 10.*—It was prepared only for slips of household industries. As in the case of *Sorter's Ticket 9*, the slips were sorted for major and minor groups of industrial code and they were further sorted by employment status.

*Sorter's Ticket 11.*—This ticket was prepared only for slips of categories I and II *viz.*, cultivators and agricultural labourers. This involved the cross-classification of the principal work and the subsidiary work. This was confined to the cultivators who had household industry or agricultural labour as

subsidiary occupation and agricultural labourers who had cultivation or household industry as the secondary occupation.

*Sorter's Ticket 12.*—This was similar to ticket No. 11. This was confined to people engaged in household industries with cultivation or agricultural labour as a secondary occupation.

*Sorter's Ticket 13.*—This was prepared for all the categories of workers except the cultivators, agricultural labourers and those engaged in household industries. The slips were sorted according to the industrial code classifications.

*Sorter's Ticket 14.*—It was prepared for the 7 categories of workers excluding I and II. The slips were first sorted according to occupational divisions with reference to the first digit of the 3 digit occupation code already recorded in each slip. These divisions were taken one after another and sorted for major groups and then for the 3 digit minor groups.

*Sorter's Ticket 15.*—It was prepared for non-workers. The slips were sorted according to the 8 categories of non-workers. These categories were sorted by the broad age-groups, 0-14, 15-34, 35-39 and 60 and over.

*Sorter's Ticket 16(a).*—This was prepared for only urban slips. The slips relating to two categories of non-workers *viz.*, unemployed and never employed persons were sorted according to the age-groups and educational standards. The educational standards adopted were similar to those prescribed in *Sorter's Ticket 5 (a)*. The age groups were 15-19, 20-24, 25-29, 30-34, 35 and above in the case of never employed persons and 15-19, 20-24, 25-34, 35-44, 45-59 and 60 and over for those in the unemployed category. The point which arose for consideration was whether persons under the age of 14 could be treated under either category. In sorting *Sorter's Ticket 15*, columns against 0-14 had been filled in some cases since enumerators had treated persons who were aged below 14 as both never employed as well as unemployed. According to the procedure, this should also be counted in *Ticket 16 (a)* because *Tickets 14* and *16(a)* would have to be tallied. Further, it is quite possible that a person below 14, either an illiterate or a person who had studied up to middle school, may be on the look out for some sort of employment and should strictly be treated as 'never employed'. Unfortunately, no column has been prescribed in this case for those coming within the age-group 0-14. In a country like India where compulsory education is not enforced, it would be unrealistic to assume that persons below the age of 15 can never be on the look out for employment. The column 0-14 should have been incorporated in this ticket on two grounds: first to tally the entries contained in *Sorter's Ticket 15* and *16* and secondly, to measure the extent of desire among persons in the lower age-groups to seek employment in preference to study.

*Sorter's Ticket 16(b).*—The corresponding information for rural areas was incorporated in *Sorter's Ticket 16 (b)* but instead of detailed educational

standards this ticket contained information for only the three main educational standards. Further, the slips relating to never employed persons and un-employed persons were combined and sorted. No classification by age-groups was made.

*Sorter's Ticket 17.*—Sorting with reference to entries against question 7 (a) and 7 (b) namely mother tongue and other subsidiary languages was next done and the figures posted in Sorter's Ticket 17. The slips were first sorted according to the languages recorded as the mother tongues. All languages as recorded by enumerators, irrespective of the fact whether they were *prima facie* incorrect or not known were sorted and no attempt was either made to group the languages or to eliminate spurious languages. The examination of these language returns was made at our office in consultation with the linguist attached to the Registrar-General's Office, after which the languages were re-grouped. The slips relating to each mother tongue was next taken and sorted with reference to the subsidiary languages known to individuals. The slips without any entry for subsidiary languages were kept separate.

*Sorter's Ticket 18.*—The data relating to migrants were collected in Sorter's Ticket 18. Slips were sorted with reference to the answers against question 4 (a) and question 4 (b) of the individual slip. The slips were sorted into the following categories:—

1. PL—Persons born in the place of enumeration;
2. D—Persons born within the district of enumeration;
3. Born in other districts of the State;
4. Born in other States;
5. Born in other countries; and
6. Unclassified.

The slips relating to PL were counted and entered against the column according to whether the place of enumeration was rural or urban, as the case may be. The other slips were further sorted with reference to the question 4 (b) namely whether the place of birth recorded was rural or urban. If there was no entry against question 4 (b), then they were treated as unclassified in relation to the place of birth. Originally, for sorting slips relating to migrants, the Registrar-General had issued instructions to the effect that slips relating to persons born in districts other than the districts of enumeration may be grouped together as in the case of States other than the state of enumeration. However, since we wanted to study the extent of inter-district migration, we issued instructions to sorting staff that slips would have to be sorted individually for each district other than the district of enumeration and the figure recorded in Sorter's Ticket 18 instead of clubbing figures relating to all other districts together. Subsequently, at the Conference of Superintendents of Census Operations in February, 1962, it was decided, that the slips should be sorted out according to the various districts as recorded against question 'place of birth' as it would provide essential information for a special table on inter-district migration. As we had already done this, it was

possible for us to avoid further sorting. Some Superintendents of Census Operations also suggested that the figures of migrants from the adjoining districts of another State should also be collected so as to find out the origin of Inter-State migrants. But we did not undertake this resorting.

Sorting of migrants gave rise to a number of difficulties as many enumerators had only recorded the name of the place in the slip and had not cared to find out whether it was rural or urban. In many cases only the name of the villages had been recorded and not the name of the districts and, in such cases, the entries had to be verified with reference to the location code statement so as to decide whether these villages lay within the district of enumeration or outside the district.

*Sorter's Ticket 19.*—This was prepared for migrants according to the duration of residence in the place of enumeration. All the categories except PL were taken for this sorting. Slips relating to each birth place were sorted with reference to the entry against question 4 (c) of the enumeration slip. The durations of residence was classified as follows:

- (a) less than a year;
- (b) 1 to 2 years;
- (c) 3 to 5 years;
- (d) 6 to 10 years;
- (e) 11 to 15 years;
- (f) 16 and over; and
- (g) period not stated.

The classification into rural, urban and unclassified effected in Sorter's Ticket 18 was maintained for this ticket also.

*Sorter's Ticket 19-A.*—This was prepared for the migrants from other States and countries outside India whose durations of residence was less than 1 year, 1 to 2 years and 3 to 5 years. They were classified according to age-group 0-2, 3-12, 13-22, 23-32, 33-42, 43-52, 53+ and age not stated.

*Sorter's Ticket 20.*—It was prepared only for cities with a population of over one lakh and slips of persons born outside the place of enumeration alone were taken up for sorting. Thus, this ticket supplied essential information about migrants to the cities classified by educational standards, age-groups and occupational classifications.

The slips were first sorted according to broad age-groups 0-14, 15-34, 35-59, 60 and over and age not stated. The slips relating to age-groups were sorted according to educational standards. The educational standards laid down for this ticket was the same as the one attempted for Ticket No. 6. Every bundle of slips for each age-group and Educational Standard was taken and sorted for the major group of the occupational code with reference to the code allotted for the person's principal work. After completion of this ticket, the slips relating to migrants and non-migrants were both combined.



*Sorter's Ticket 21.*—The slips were sorted for the nationality of the persons with reference to the entries against question 5 (a) and the figures were entered in ticket number 21.

*Sorter's Ticket 22.*—The classification of population in each industrial category of worker and non-worker according to the religion they professed was next taken up for the preparation of Sorter's Ticket 22. The slips relating to Hindus and Sikhs were taken up and sorted for members of Scheduled Castes and Scheduled Tribes and the figures relating to these were posted. The slips relating to other religions were then taken up and sorted for arriving at figures of Scheduled Tribes. To facilitate this, the President's Order containing the list of names of Scheduled Castes and Scheduled Tribes in each State by individual districts was furnished to each Sorter. The total number of Scheduled Castes by the religion they professed as entered in Sorter's Ticket 22 was now verified with the totals in Sorter's Ticket 1. It was at this stage of verification that Sorters in a few Regional Tabulation Offices, in order to tally the figures, corrected what they thought were incorrect entries or omissions. The result of such an attempt caused us a lot of difficulty, as has been mentioned earlier in this Chapter.

*Sorter's Ticket 23.*—After the completion of Sorter's Ticket 22 bundles of slips were now available separately for Scheduled Castes and Scheduled Tribes by religion. The slips of Scheduled Castes professing Hindu religion were first taken and sorted according to the name by which the caste was known. Here also, the Sorters had to verify with the lists of Scheduled Castes and Scheduled Tribes contained in the President's Order. Similarly slips relating to Scheduled Castes professing Sikh religion were sorted. The slips of Scheduled Tribes belonging to each religion were next sorted for every tribe and entered in this ticket. After the completion of this ticket, the slips relating to each Scheduled Caste and Scheduled Tribe were kept separate but the slips of different religions within a caste were mixed together.

*Sorter's Ticket 24.*—The slips relating to each Scheduled Caste and Scheduled Tribe were sorted by broad age-groups 0-14, 15-44, 45 and over. The slips of each age group, were sorted according to the marital status of the persons, namely 'never married', 'married', 'widowed', 'divorced or separated' and 'unspecified status'.

*Sorter's Ticket 25(a).*—This was prepared only for the urban areas. The Scheduled Caste and Scheduled Tribe slips were sorted according to the educational standards. The following classifications were adopted.

1. Literates without educational standard;
2. Primary or Junior Basic;
3. Matriculation or Higher Secondary;
4. Technical diploma not equal to a degree;
5. University degree or Post Graduate degree other than technical diploma;
6. Non-technical diploma not equal to a degree;
7. Technical diploma or degree equal to a degree or post graduate degree in different branches.

*Sorter's Ticket 25(b).*—The corresponding information for rural slips was obtained in this. But the educational standards adopted were only 'literate without educational standard', 'primary or junior basic' and 'matriculates and above'.

*Sorter's Ticket 26.*—This contained information on persons belonging to Scheduled Castes who were working at household industry, in manufacturing other than household industry and in other services. The slips relating to each Scheduled Caste were sorted for the special occupations of tanning and currying of hides and skins. The slips of other services were sorted for the occupation of scavenging.

*Sorter's Ticket 27.*—Slips relating to non-workers among Scheduled Castes were sorted for the type of activity namely, students, persons never employed, unemployed and others. Each of these bundles was then sorted for educational standards as follows:

- (a) Literate (without educational standard);
- (b) Primary or Junoir Basic; and
- (c) Matriculation and above.

*Sorter's Ticket 28.*—This related only to Scheduled Tribes. The slips relating to each Scheduled Tribe were sorted according to mother tongue and subsidiary language. First, the slips were sorted according to mother tongue and then the slips in each mother tongue were sorted with reference to the subsidiary language spoken.

*Sorter's Ticket 29.*—This related to non-workers among Scheduled Tribes. The slips relating to each Scheduled Tribe were sorted into the following categories:

- (a) Students;
- (b) Never-employed;
- (c) Unemployed; and
- (d) Others.

128. In sorting out slips for Tickets 5 (b) to 29, the procedure adopted by regional offices, differed to some extent. In all the regional offices, except Trichy and Tuticorin, all the tickets from 5 to 29 for a tract were prepared before slips of another tract were taken up. But in Tuticorin and Trichy offices, the slips of all the tracts were sorted out for one ticket before the next ticket was taken up. As between these two methods, the former seems to be better suited where a large number of slips are involved in order to ensure the accuracy at every stage. Further, it is also convenient in the sense that when all the tickets for a tract are completed, the slips could be sent back to the record room and they need not be taken up again. This ensures economy in space and solves the problem of safe custody. Another great advantage in ensuring accuracy is that the various tickets of a particular tract can be cross-checked and the figures finalised before proceeding to the next tract. But if all the tracts are taken up one after another for completing one ticket, some amount of confusion is bound to arise and much time will have to be wasted in arranging the tickets and bundles. Further, cross-checking of tickets which is not possible when all the tracts

are taken together unless we have as many number of teams as there are tracts which was not the case in many of the offices.

#### COMPILATION

129. The preparation of compiler Posting Statements was taken up contemporaneously with the preparation of tickets. As soon as each ticket was sorted out by the Sorters the figures were posted in the Compiler Posting Statements by the Compiler Checkers of the team and these were checked by the Supervisors then and there. There were altogether 43 Compiler Posting Statements to be prepared. The tickets from which each of the Compiler Posting Statements have been prepared, are indicated in a statement appended to this report.

#### PREPARATION OF TABLES

130. The tables were prepared from the consolidated statements of the Compiler Posting Statements. Compilation of tables was taken up after the entire sorting was completed and the Compiler Posting Statements has been posted and consolidated. The regional offices prepared the tract-wise tables and sent them to the Royapuram Tabulation Office which was made the Central Tabulation Office for the compilation of State Tables. The tables from the regional offices were sent in batches. The tables could not be prepared at the Regional Offices as expeditiously as we wanted since they had to be prepared in manuscript forms. No forms for the preparation of Tables were printed this time and the preparation of tables in manuscripts occasioned some delay in the receipt of tables in the Central Tabulation Unit. This also added to our difficulties of compilation in the Central Tabulation Unit as the same table was prepared in varying sizes by the various tabulation offices.

131. The preparation of regional tables was done in all the offices by special teams consisting of one Statistical Assistant, one or two Upper Division Clerks and about 6 to 8 Lower Division Clerks. By this time, the staff in the tabulation offices had been reduced considerably in accordance with our requirements. The regional offices prepared 2 copies of each table and sent them on to the Central Tabulation Unit at Royapuram where the State tables were consolidated. Two copies of the State tables were prepared in Royapuram and sent to the main office where they were once again test-checked for internal consistency and sent to the Registrar-General.

#### INCLUSION OF DEFENCE PERSONNEL

132. An important item of work in the finalisation of tables was the inclusion of data regarding the defence personnel, Registrar-General had furnished the data relating to the defence personnel of each district with particulars relating to age, marital status, religion and other relevant classifications. In order to arrive at the final population figures of each village and the tract, the data relating to defence personnel had to be incorporated in the Primary Census Abstract also. This involved a lot of strain in locating the individual villages as given by the Army Statistical Organisation and including them in the Primary Census

Abstracts. The incorporation of this data in the tables proved to be quite an arduous item of work and the strain cannot be measured in terms of time expended or in the staff employed.

133. The salient features of the tables prepared during this Census have been briefly described below:

#### A. GENERAL POPULATION TABLES

134-A. *A. I.*—This Table furnishes particulars of population, number of occupied houses, area of the tracts and towns, density of population etc. The figures are furnished separately for each tract, town and town-group. There was some difficulty in obtaining the correct area figures. We addressed the Municipal Commissioners and Tahsildars for the area figures. The figures furnished by them did not tally with the area figures furnished by the central survey office. It was only after a protracted correspondence with these offices that the figures could be finalised.

Three appendices have been prepared for Table A. I. Appendix I traces the growth of the State to its present size since the last census taking into account the inter-State, inter-district and inter-taluk transfers of territory. Appendix II has been prepared to indicate the number of towns with a population of less than 5,000 and the number of villages with a population above 5,000.

Appendix III furnishes figures of houseless and institutional population in the State.

*A. II.*—This Table indicates the variation of population between the census years commencing from 1901. One of the important changes introduced in this census is that percentage variation is indicated from decade to decade.

*A. III.*—This Table furnishes figures of the number of villages with the various population ranges such as less than 200, 200—499, 500—999, 1,000—1,999, 2,000—4,999, 5,000—9,999 and 10,000 and above. The actual population of the villages are also presented.

*A. IV.*—This Table indicates the growth of each town since 1901 census. The towns have been divided into six classes according to the size of the population. Town groups have been classified according to the total population of the group and individual towns are not shown separately in their respective classes. The percentage variation has been given for each decade. Appendix to this Table indicates the area and population of individual towns in 1961 and towns of the 1951 census which have been declassified in 1961 Census. Each individual town has an explanatory note indicating the area and population of each village in 1951 census now constituting these towns. Similarly each town in the 1951 census declassified in 1961 has an explanatory note showing the name, area and population of the villages constituting the rural areas.

#### ECONOMIC TABLES

134-B. The first table to be prepared under this series was the Primary Census Abstract. This gives the area in square miles, number of occupied houses,

number of households, total population, population of Scheduled Castes and Scheduled Tribes, literates and workers classified into 9 industrial categories and non-workers. This has been prepared for each enumerator's block in the case of urban areas and each village in the case of rural areas.

*B.I.*—This Table has been prepared from the Primary Census Abstract and it furnishes the total population of the 9 industrial categories of workers and non-workers. Each category has been divided into 5 age-groups; 0—14, 15—34, 35—59, 60 and over and age not stated. The classification of workers and non-workers by age-groups is a special feature of the 1961 Census.

*B.II.*—This Table furnishes economic data by age-groups for each city, town and town-groups. This is a voluminous table, since figures are furnished in 28 columns for each town. There are 339 towns and 34 town-groups in the State.

*B.III.*—This Table has been prepared in two parts, the first part relating to urban areas and the second part relating to rural areas. The nine categories of workers and the non-workers have been classified by educational standards. This Table corresponds to D VII of 1951. There are seven classifications of educational standards in urban areas and three in the case of rural areas.

*B.IV.*—This Table has been prepared in three parts. Part A relates to workers at household industry. They have been classified according to the division and the major group of Standard Industrial Classification. The workers at household industry have been further classified into employees and others. Figures have been presented for total and urban only. Part B relates to workers in non-household industry, trade, business, profession or service and these figures have been presented by major groups. This table has been prepared for total and urban areas. Workers in each major group have been classified into the categories of Employer, Employee, Single Worker and Family worker. Part C presents the data according to the three-digit code of the Industrial classification. Total number of workers, workers at household industry and workers in non-household industry are shown separately.

*B.V.*—This Table relates to occupational classification of workers. This gives figures for each family, group and division of National Occupational Classification. This is a voluminous Table as figures have been shown for 331 families, 75 groups and 11 divisions. Under each occupational code, figures have been shown separately for the different industrial categories.

*B.VI.*—This Table presents the workers in each division of the occupational classification, cross-classified by age-groups and educational standards.

*B.VII.*—This Table has been prepared in two parts indicating the principal and secondary items of work. Part A relates to persons whose principal occupation is cultivation or agricultural labour or household industry and have one of the other two

occupations. Part B deals with persons who have non-household industry as the principal item of work with household industry as secondary work. Both the principal and secondary work have been classified by the division and major group of industrial classification.

*B.VIII.*—This Table has been prepared in two parts. Part A relates to urban areas and Part B relates to rural areas. Persons seeking employment for the first time and persons, once in employment and subsequently unemployed have been shown separately for urban areas whereas they have been grouped together for rural areas. Persons in search of employment have been classified according to the age-groups and educational standards.

*B.IX.*—This Table deals with non-workers who have been classified into 8 categories according to the type of activity. Figures are presented separately for rural, urban and total.

Besides these general economic tables, 7 household economic tables also have been prepared. They were compiled from the household schedules and they are described in detail in the next chapter.

#### SOCIAL AND CULTURAL TABLES

135-C. *C.I.*—Unlike the other tables in this series, this table has been compiled from the census population record and it is based on a 20% sample. This table deals with the family composition of sample households. The other tables in this series have been compiled from the individual slips and are based on a full count.

*C.II.*—This Table deals with age and marital status of population. The corresponding Table of 1951 was based on a 10% sample. In this Census, this is based on a full count.

*C.III.*—This classifies population according to age, sex and education.

*C.IV.*—This furnishes the single-year age returns.

*C.V. and C.VI.*—These Tables relate to mother tongue and bilingualism. The languages have been arranged in alphabetical order.

*C.VII.*—This classifies population according to the religion.

*C.VIII.A & B.*—These Tables furnish the total population of Scheduled Castes and Scheduled Tribes and their distribution according to industrial categories.

#### MIGRATION TABLES

136-D. *D.I.*—This Table furnishes the number of foreign nationals classified according to their nationalities.

*D.II.*—This deals with the migrants classified according to the places of origin. The rural or urban nature of the places of origin and the places of enumeration have been indicated. This will be useful to study rural-urban migration.

*D.III.*—This presents the cross-classification of migrants according to their places of birth and durations of residence in the place of enumeration.

*D.IV.*—This Table deals with migrants to cities. This classifies the migrants according to sex, broad age-group, educational standards and occupational divisions and major groups.

*D.V.*—This also deals with migrants to cities. Migrants from rural areas and other urban areas are shown separately. They have also been classified according to the duration of residence *i.e.* whether less than 3 years or more than 3 years.

*D.VI.*—This classifies the migrants from rural and urban areas according to the broad industrial categories.

#### SPECIAL TABLES FOR SCHEDULED CASTES AND SCHEDULED TRIBES

137. A number of special Tables have been prepared for Scheduled Castes and Scheduled Tribes this time dealing with their economic and social characteristics. The Tables furnish details for each of the individual castes and tribes; each Table consists of two parts. Part A deals with Scheduled Castes and Part B with Scheduled Tribes. The following five Tables prescribed by the Registrar-General were prepared for Scheduled Castes and Scheduled Tribes besides the Special Tables which we prepared to aid our discussion in the monographs on Scheduled Castes and Scheduled Tribes. The special Tables prepared by us have been described in detail in Chapter IV. Here, we have briefly indicated the special features of the five tables prescribed by the Registrar-General.

##### *SCT I*

This classifies population (Scheduled Castes and Scheduled Tribes) according to the nine industrial categories of workers and non-workers. Separate figures have been presented for rural and urban areas with sex-break-up. Figures of workers in the special occupations like tanning of hides and skins and scavenging services have also been presented in the case of Scheduled Castes.

##### *SCT II*

This Table presents the data on marital status of Scheduled Castes cross-classified by three broad age-groups, namely 0-14, 15-44 and 45 and above. The classifications of marital status adopted in this Table are 'never married', 'married', 'widowed', 'divorced or separated' and 'unspecified status'. This has been prepared for the total population without rural and urban break-ups. Figures, however, are presented for males and females separately. Part B of this Table furnishes the same information about the Scheduled Tribes.

##### *SCT III*

This actually consists of four parts—Parts A (i) and B (i) dealing with Scheduled Castes and Parts A (ii) and B (ii) dealing with Scheduled Tribes. Parts A (i) and A (ii) furnish the data about the literacy and educational standards of Scheduled Castes and Scheduled Tribes in urban areas. The figures are furnished with sex-break-up. For these two Tables with the urban areas, detailed educational standards have been adopted. Parts B (i) and B (ii) deal with the literacy and educational standards of Scheduled

Castes and Scheduled Tribes in the rural areas. The classifications adopted for these Tables are abridged ones. The literate people have been categorised into three broad groups namely literate without educational standards, primary or junior basic and matriculation and above.

##### *SCT IV*

This Table furnishes details about the religion of Scheduled Castes and Scheduled Tribes. Part A deals with Scheduled Castes and Part B deals with Scheduled Tribes. In Part A, the Scheduled Castes have been classified as Hindus or Sikhs. According to our definition, Scheduled Castes can belong to only one of these two religions but in the case of Scheduled Tribes, they may belong to any religion. In the case of Scheduled Tribes all the religions returned have been shown separately, besides the residuary columns of 'indefinite beliefs' and 'religion not stated'.

##### *SCT V*

This Table, unlike the preceding four Tables, is based on the household schedules and the tabulation was done only for a 20% sample. This Table deals with the cultivating households classified according to the size of the land cultivated and the nature of interest in land. This is confined to rural areas alone. As in the case of other Tables, Part A deals with Scheduled Castes and Part B with Scheduled Tribes.

##### *SC 1*

This was prepared only for Scheduled Castes and it classifies the non-workers among Scheduled Castes according to sex, type of activity and educational standards.

##### *S.T. 1*

This was prepared only for Scheduled Tribes and it deals with mother tongue and bilingualism. Particulars have been furnished for each of the individual tribes. Besides the details about mother tongue, the details of other languages known and the number of people who know subsidiary languages have been given in this table.

##### *S.T. 2*

This is similar to table S.C. 1 but relates to the Scheduled Tribes. It classifies the non-workers among Scheduled Tribes according to sex and type of activity.

#### MARKING SYSTEM

138. We indicated in our introduction that we had devised a marking system in order to ensure that optimum out-turn was maintained at the Tabulation Offices by the Tabulation Staff without at the same time sacrificing the accuracy of Tabulation. The basic principle involved in this marking system was the fixation of norms namely how many slips would an average sorter be able to handle in an hour. To arrive at these norms, we undertook a pilot sorting ahead of the commencement of tabulation work in the regional offices. We selected an efficient set of

sorters and organised a pilot team with two Compiler-checkers, one Supervisor and eight sorters. The out-turn of these sorters for the various tickets helped us to fix the norms for the regional offices and they served as a sort of yardstick for assessing and comparing the relative efficiency of the respective teams. The following were the scale of marks evolved for sorting:—

*For sorting and counting every 100 slips or part thereof where it involves.*

Sorting into	2 bundles	0.06
„	3 „	0.08
„	4 „	0.09
„	5 „	0.10
„	6 „	0.11
„	7 „	0.13
„	8 „	0.14
„	9 „	0.15
„	10 „	0.17
„	11 „	0.18
„	12 „	0.19
„	13 „	0.20
„	14 „	0.22
„	15 „	0.25

To illustrate this marking system briefly, it was found during pilot sorting that in one hour 1,600 slips would normally be sorted into 2 categories with the help of two pigeon holes by an average sorter. For the number of slips handled in an hour, one mark was assigned. From these, it was calculated that 0.06 could be allotted for sorting 100 slips into two categories. The marks allotted to other operations also were calculated on similar lines.

#### EMPHASIS ON ACCURACY

139. Out-turn of each sorter was totalled out and marks were allotted to them. The team totals were obtained by adding up the marks of all the sorters in the team. The co-efficient of the efficiency of the team was arrived at by dividing the total number of marks earned by the number of sorter hours spent. This proved a fairly reliable yardstick to compare the performance of the various teams. This should not give a wrong impression to the reader that our emphasis was solely on the speed. We placed equal emphasis, if not more, on the accuracy of work. Deductions were made for the mistakes in the sorters' work and the scale of deductions also varied with the number of mistakes committed on each day. If the Compiler-Checker or the Supervisor detected any mistake in the work of the sorters, marks were deducted according to the following scale:—

For the first mistake of the day.....	0.25 marks
For the second mistake of the day....	0.50 marks
For the third and subsequent mistakes of the day.....	1.00 mark each

The marks for the mistakes detected by the Compiler-Checker and the Supervisor were deducted from the marks earned by the sorter. The team, therefore, was not penalised for the mistakes of one of its sorters. In case the Compiler-Checker or the Supervisor failed to rectify any mistakes which were

subsequently detected by the Tabulation Assistant, Statistical Assistant or other Supervisory staff, the team as well as the sorter lost the marks for the mistakes.

#### DRAWBACKS OF THE SYSTEM

140. A sorter was considered to be of average ability if his co-efficient of efficiency was one, *i.e.* if the sorter earned one mark in an hour. Every sorter was asked to maintain an out-turn register and the Supervisor maintained a register for the whole team. The out-turn registers were checked by the Tabulation Assistant every day besides the periodical checks by the Statistical Assistant, Tabulation Officer and Deputy Superintendent of Census Operations. The marks earned by each team and the co-efficients of efficiency were reviewed every week and this helped us to assess the performance of every team and to pull up the inefficient ones. In the case of Compiler-Checkers, their efficiency was judged from the number of slips checked and the number of mistakes detected. This, of course, proved a little unfair to the Compiler-Checkers in charge of efficient teams where the sorters were good. But the personal knowledge of the Compiler-Checkers and their performance as revealed in other aspects, was taken into account in judging the efficiency of the Compiler-Checkers. Another drawback of this system which we found in actual practice was that for some of the simple tickets the sorters could earn almost the double number of marks than the norms fixed by us. This was possible by cutting short the stages of sorting as prescribed on the reverse of the Sorter's tickets. For example, if the slips were to be sorted into literate males and literate females, the instructions on the reverse of the Sorter's Tickets were to sort out the males and females first and then take up slips of males and females separately and to sort them out into literates and illiterates. Each operation involved the use of 2 pigeon holes. But some of the smart sorters straightaway sorted the 4 categories using 4 pigeon holes. This process of cutting down the stages which were prescribed in the Tabulation Manual enabled them to do the work fast and earn more marks. This abuse was detected in good time and due weightage was given for this.

#### A PRACTICABLE YARD-STICK

141. No doubt, the system contained a few loopholes of the type indicated above but it proved to be a practicable yardstick to assess the performance of the tabulation staff, in the absence of a better one. It also served us as the basis for the grant of bonus to the Tabulation staff.

#### REGIONAL OFFICES

142. Before we conclude the chapter on Tabulation we will briefly recount some of the problems connected with the organisation and working of Regional Tabulation Offices.

#### REGIONAL TABULATION OFFICE, ST. THOMAS MOUNT

143. This was housed in a private building (Masonic Lodge Building) at No. 28, St. Thomas Mount. The building is adjacent to the civil aerodrome at Mee-nambakkam. It was hired on a monthly rent of

Rs. 300 which was duly certified as reasonable by the Executive Engineer, Public Works Department. The building was taken over with effect from 1-12-1960. It had a plinth area of only 3667 square feet. An extent of 625 square feet had to be set apart for the record room and the room for the Deputy Superintendent of Census Operations and the Administrative staff. Tabulation staff had to be accommodated in the remaining space. This building had one main hall measuring 62' x 25' and two open verandahs which were not enclosed. The area available was found inadequate to accommodate the tabulation staff of nearly 200 persons. We, therefore, decided to erect a temporary shed similar to the one erected near the main office. The Executive Officer of the St. Thomas Mount Cantonment Board was good enough to grant permission to the erection of a temporary shed adjacent to the main building. The estimates were sanctioned for the construction of the shed, and the work was entrusted to a private contractor who had completed almost one fourth of the work when we encountered some unexpected difficulty. At this stage, the aerodrome authorities objected to the construction of the shed on the ground that it might be a possible hindrance to the low flying aircrafts approaching the runway. We took up the matter with the Controller of Aerodromes Mr. Khanna with whom Mr. Murari made a joint inspection of the spot and had further discussions. Since the shed was on the direct approach to the runway, the aerodrome authorities reiterated their objection and the work had to be stopped at that stage and the part of the construction which had been completed had to be demolished. All was not lost as it appeared. We decided to divert a part of the work to the other two Tabulation offices in the City along with the staff. Since the building could accommodate only about 140 members of the staff, the remaining 140 persons recruited for St. Thomas Mount office were diverted to the Nungambakkam office and the Royapuram office at the rate of 70 persons per office. This diversion meant that we had to find additional accommodation for the staff at the Nungambakkam. As indicated earlier, we had already constructed a temporary shed to accommodate the unit engaged in houselisting tabulation. So, on similar lines, we decided to construct another shed for accommodating those persons who were to take up general tabulation work. The contractor was directed to transport materials to Nungambakkam and to erect the shed adjacent to the main office building.

144. The verandahs of the St. Thomas Mount building were enclosed at a cost of Rs. 1,600 in order to make them suitable for accommodating Tabulation teams. Since there were no water closets in the main building, provision was made for putting up temporary lavatories in the open space behind the office. Arrangements were also made to fetch drinking water from the adjoining taps and to supply to the staff.

145. The urban slips of Tiruchirapalli, Thanjavur and Ramanathapuram were tabulated in the St. Thomas Mount Office. Urban slips of Madurai and Tirunelveli which were originally allotted to the St. Thomas Mount Office were diverted to Royapuram

and Nungambakkam Offices in view of the circumstances explained above. This office was in charge of Sri A. Gopala Padayachi who was assisted by a Statistical Assistant. After the completion of the work, this office was closed on 15-1-1962. The staff employed in this office at various stages of work are indicated in the following statement:—

As on 1st of the month	Sorter	Compiler Checkers	Supervisors	Tabulation Assistants	Statistical Assistants.
<b>1961</b>					
May . . .	63	..	6	1	..
June . . .	94	9	9	1	..
July . . .	100	23	11	2	1
August . . .	93	23	11	2	1
September . . .	89	22	11	3	1
October . . .	88	23	11	3	1
November . . .	86	23	11	3	1
December . . .	89	23	11	3	1
<b>1962—</b>					
January . . .	10	..	..	1	..

As the workload of the office was little compared to that of the other offices, it was decided that the post of Tabulation Officer need not be filled up in this office and the Deputy Superintendent of Census Operations could manage with the assistance of Statistical Assistant. On winding up the office, the furniture, steel boxes, racks and records were transferred to the Nungambakkam office and the building was released to the owner on 15-1-1962.

#### REGIONAL TABULATION OFFICE, ROYAPURAM

146. This was housed in a private building at No. 2, Brunton Cotton Press Road, Royapuram, which we were able to secure after considerable amount of search. It was a huge building and we took only the first floor of the building on rent. The effective floor space available in the huge hall in the first floor was 7533 square feet and this was ideally suited for the housing of the tabulation staff. Since it was a huge hall previously used as a godown, a few portions of the hall had to be partitioned to provide for the record room and rooms for the administrative section and the Deputy Superintendent of Census Operations. Amenities like water closets, fans, lights were available in this building. The Executive Engineer, Central Public Works Department originally recommended the rate of 17 p. per square foot but on a representation made by the owner to the Central Public Works Department, the building was once again inspected by the Executive Engineer and a revised recommendation was made to pay him at the rate of 23 p. per square foot taking into consideration the nature of the locality. We addressed the Registrar-General to obtain sanction of the Home Ministry for a monthly rent of Rs. 1,732.50 p. and the sanction was granted. The building was taken over with effect from 15-4-1961.

147. Urban slips of North Arcot, Salem, Coimbatore and Madurai districts were tabulated in this office besides the slips of Madras City. Special Tabulation like Metropolitan sorting, special sorting for

Scheduled Castes and Scheduled Tribes, Fertility sorting were also done in this office. The quantum of staff employed in this office at every stage is indicated in the statement below:

Position on 1st of the month	Sorters	Com- piler Check- ers	Super- visors	Tabula- tion Assis- tants	Statisti- cal Assis- tants
<b>1961</b>					
April . . . . .	60	11	15	1	..
May . . . . .	83	13	17	1	..
June . . . . .	111	23	26	3	..
July . . . . .	238	55	31	4	..
August . . . . .	234	48	31	5	1
September . . . . .	199	48	25	6	1
October . . . . .	206	50	31	5	1
November . . . . .	185	51	30	6	1
December . . . . .	149	49	33	6	1
<b>1962</b>					
January . . . . .	95	47	26	4	1
February . . . . .	115	86	24	3	1
March . . . . .	73	41	21	..	2
April . . . . .	88	40	27	..	2
May . . . . .	72	39	27	..	2
June . . . . .	64	45	16	..	2
July . . . . .	70	41	15	..	1
August . . . . .	37	29	10	..	2
September . . . . .	37	30	8	..	1
October . . . . .	36	28	8	..	1
November . . . . .	35	37	8	..	1
December . . . . .	20	27	7	..	2
<b>1963</b>					
January . . . . .	10	26	5	2	4
February . . . . .	6	25	6	2	3
March . . . . .	7	20	6	1	..
April . . . . .	7	16	5	1	1
May . . . . .	4	13	3	1	1
June . . . . .	2	11	3	1	..

After the completion of the general tabulation relating to the urban slips of North Arcot, Salem, Coimbatore and Madurai districts, and the slips of Madras City, this office was converted as the Central Tabulation office. The tractwise tables sent by the Regional Offices were consolidated and State Tables were prepared in this office. The subsidiary tables were also prepared in this office. This office was in charge of Sri S. M. Sulaiman, Deputy Superintendent of Census Operations, till 30-6-62 when Sri J. R. Ramanathan took over as Deputy Superintendent of Census Operations, Royapuram. After the completion of the General Tabulation and many of the special tabulations, this office was wound up on 30-6-1963. In view of the fact that many items of work had been completed and the staff had also been commensurately reduced we felt it unnecessary to retain the Royapuram building at such high rent. We were on the look out for a smaller building to accommodate the records and the staff engaged in some of the residuary items of work. We were able to secure a good building at No. 2 Kellys Road, Kilpauk on a monthly rent

of Rs. 730. The building at Royapuram was released to the owner on 1-7-1963 and before that the records, furniture and other equipment were transferred to the office at Kellys. The surplus articles of furniture like pigeon holes, stools, tables without drawers and steel boxes were auctioned to the extent possible and rest have been stored in the Kelly's office. The Kelly's office is now functioning as a branch of the main office.

#### REGIONAL TABULATION OFFICE, COIMBATORE

148. This office was located in a spacious building at the Argus Engineering Estate, Peelamedu at a distance of 5 miles from Coimbatore town. This building was secured with the help of the Collector of Coimbatore and through the personal intervention of our Superintendent who had been the Collector of Coimbatore before. This was one of the most spacious of the buildings we had hired for our tabulation offices. It had about 13 halls with a total plinth area 12,056 square feet and was quite sufficient to accommodate the sorting staff. The rent was fixed at Rs. 700 per month by the Executive Engineer, Central Public Works Department. Under the rules relating to the delegation of financial powers, Superintendent of Census Operations was empowered to hire accommodation up to a limit of Rs. 625 per month in Madras City and Rs. 500 in other places. Since the rent fixed for this building exceeded this limit we had to address the Home Ministry through the Registrar-General for sanction and the Ministry issued the necessary sanction in good time. The building was taken over on behalf of the Census Organisation on 1-8-1960.

149. We had some difficulty in acquiring suitable furniture for this office. The quotations obtained from the Coimbatore furniture dealers were very high and this made us to think of the possibility of buying furniture in Madras and transporting them to Coimbatore. In the meantime, we made a search in some of the other towns of the Coimbatore district and we were finally able to get a Furniture Company at Erode who were prepared to supply the specified furniture at reasonable rates. The steel boxes were supplied by Messrs. Kannabiran & Co., of Madras who supplied boxes to all other offices including the main office at Madras.

150. The rural slips of Nilgiris, Coimbatore and Salem districts were tabulated in this office. The staff employed in this office at various stages of work are indicated in the statement below:

As on 1st of the month	Sorters	Com- piler Check- ers	Super- visors	Tabu- tion Assis- tants	Statisti- cal Assis- tants
<b>1961</b>					
April . . . . .	..	..	3	..	..
May . . . . .	89	..	14	1	1
June . . . . .	148	..	23	4	..
July . . . . .	148	43	23	4	1
August . . . . .	194	45	23	4	1
September . . . . .	198	50	18	5	1
October . . . . .	190	48	21	5	1
November . . . . .	191	50	21	5	1
December . . . . .	108	45	20	5	1

As on 1st of the month	Sorters	Compiler Checkers	Supervisors	Tabulation Assistants	Statistical Assistants
<b>1962</b>					
January	60	50	12	3	1
February	54	50	12	3	1
March	46	28	7	..	1
April	46	28	8	..	1
May	30	7	3	..	1
June	23	7	2	..	..
July	5	3	1	..	..
August	5	3	1	..	..
September	3	3	1	..	..
October	1	2	1	..	..
November	1	22	1	..	..
December	..	..	1	..	..
<b>1963</b>					
January	..	..	1	..	..
February	..	..	1	..	..

151. This office was headed by Sri T. S. Panchapakesan, Deputy Superintendent of Census Operations and he was assisted by Sri T. V. Venkataraman, a Tahsildar of the Revenue Department who was appointed as the Tabulation Officer. When the bulk of the tabulation work was completed and we had retrenched the staff to the required minimum, we thought it unnecessary to continue in the same building incurring such a heavy expenditure on rent. We were on the look out for a smaller building and finally hired a building at No. 39, Ramalingapuram Road, R. S. Puram, Coimbatore on a monthly rent of Rs. 450. The building at Argus Estate was vacated and the new building was taken over by us on 1-2-1962. Finally, this office was closed on 28-2-1963. The records and a part of the furniture were transferred to the Royapuram Office. The surplus furniture of Coimbatore Office were transferred to the Collector of Coimbatore who required them and the price was fixed after allowing 33-1/3% as depreciation. A sum of Rs. 1,931.61 p. was adjusted by transfer to census department.

#### REGIONAL TABULATION OFFICE, CUDDALORE

152. The office was accommodated in the District Board office building. There was some difficulty in securing this. Since no suitable building to answer our requirements was available, the Collector of South Arcot, Sri S. A. Sundararajan suggested that he would release a portion of the District Board Office to accommodate the tabulation office. Our Superintendent inspected this building and to supplement the space available in the building promised to be released by the Collector, he proposed the construction of two temporary sheds adjacent to the building. The Collector, in his capacity as the Special Officer, accorded permission for putting up the sheds in the vacant space adjacent to the building. The sheds were constructed through the Municipal Engineer and the upstairs portion of the building was also occupied by

3rd April 1961. The downstairs portion of the building, where the District Board's records had been stored was promised to be released in about a month's time. At this stage, there was transfer of personnel at the apex of the district administration, when the new Collector, Sri Somasundaram, after a personal inspection, disagreed with his predecessor that the downstairs portion could be placed at our disposal and instead proposed to give two rooms in the adjacent building. Thus, the space finally made available to us was much less than what was promised. It is rather unfortunate that what has been agreed to by a predecessor was not implemented by his successor in spite of a definite commitment. However, in keeping with our established practice of having amicable relationship with the district administrator, we accepted the stand taken by the Collector of South Arcot, in spite of the repercussions it had on our programme.

153. The temporary sheds were ready for occupation by the second fortnight of April 1961. The sheds each measuring 60' x 30' were constructed at a cost of Rs. 4,850. The estimates were prepared and the work was executed under the supervision of the Municipal Engineer, Cuddalore. The sorting teams were accommodated in both the sheds and a portion of the hall on the first floor. The other portion of the hall was occupied by the administrative staff. A room was also provided for the Deputy Superintendent by partitioning the hall with wooden planks. Since no water closets were available in the main building, two blocks of latrines, one for the gents and the other for the ladies, were constructed within the compound at a total cost of Rs. 1,290.

154. The fixation of rent for the buildings also posed some difficulties. Originally, the rent was fixed by the Executive Engineer, Public Works Department at Rs. 139 for the main building and Rs. 9 as ground rent for the area covered by the sheds. Later on, the Special Officer of the District Board asked the Divisional Engineer, Highways, to fix the rent stating that he would not be bound by the assessment of the Executive Engineer, Public Works Department and that the rent should be fixed by the Divisional Engineer who was in charge of the District Board buildings. The Divisional Engineer, in his turn, fixed the rent at Rs. 262 per month. Such differences of opinion between two senior officers, both of them technically qualified, appeared to us, to say the least, strange and disconcerting. However, since the Collector himself had originally communicated to us the rent fixed by the Executive Engineer, Public Works Department, we refused to accept the rent fixed by the Divisional Engineer and continued to pay at the rate fixed by the Executive Engineer, Public Works Department, that is Rs. 148 (Rs. 139+9) per month.

155. The rural slips of South Arcot and North Arcot districts were tabulated in this office. Despite the difficulties we encountered in securing the building, we were able to get the tabulation work started in good time, and this office completed the general



tabulation work ahead of the other offices. The quantum of staff employed in this office at various stages are indicated in the following statement:

As on 1st of the month	Sorters	Com- piler Check- ers	Super- visors	Tabu- lation Assis- tants	Statistical Assis- tants
<b>1961</b>					
May . . . . .	81	..	8	2	..
June . . . . .	81	..	9	2	..
July . . . . .	173	12	12	4	1
August . . . . .	144	30	18	4	1
September . . . . .	133	32	17	5	1
October . . . . .	154	37	15	5	1
November . . . . .	127	30	11	5	1
December . . . . .	72	28	10	5	1
<b>1962</b>					
January . . . . .	11	28	10	4	1
February . . . . .	41	29	10	3	1
March . . . . .	39	12	6	..	1
April . . . . .	38	12	6	..	1
May . . . . .	24	5	3	..	1
June . . . . .	20	4	1	..	..

156. This office was in charge of Sri J. R. Ramathan, Deputy Superintendent of Census Operations and he was assisted by Sri M. K. Subramaniam, Tabulation Officer. The furniture for this office were supplied from Madras, as we did not get any suitable contractor to supply such large amounts of furniture in Cuddalore. The record racks were, however, got made in Cuddalore itself. The steel boxes also were supplied from the main office. After the completion of the general tabulation work, special tabulations like fertility tabulation and a portion of the slum survey tabulation were also done in this office. This office was finally closed on 15th July, 1962. The surplus furniture like stools, tables and pigeon-holes were disposed off in auction after observing the usual formalities. The costlier type of furniture like the teak-wood tables with drawers and rattan chairs were transferred to the Royapuram office along with the records and other equipment.

157. The main building was released to the Special Officer, District Board on the closure of the Office. After discussions with the Collector, we ascertained that he could put the two sheds to some good use. So, we decided to transfer the ownership of the sheds along with the latrines to the Collector of South Arcot after adjusting the necessary amount to the credit of our Department. The sheds were handed-over to the Assistant Engineer, Highways, on 7th July, 1962. Subsequent to the closure of the office, a question arose as to the payment of supervision charges for the construction of the sheds. We had indicated that the estimates were prepared by the Municipal Engineer and the work was also got executed under his supervision. In the original estimates prepared by the Municipal Engineer, no mention was made about the supervision charges to be paid by us. During the audit of the municipal accounts, this seems to have been pointed out by the audit party, and subsequently a claim for supervision charges was made by the municipality and this claim was also endorsed by the Collector of South Arcot. The claim was accepted by us as it was a legitimate charge, though it was

not originally raised. We had earlier referred to the difference in the fixation of rents by the Executive Engineer and the Divisional Engineer. Subsequently, the question was settled by the Special Officer agreeing to accept the rent fixed by the Executive Engineer, Public Works Department.

#### REGIONAL TABULATION OFFICE, TIRUCHIRAPALLI

158. This office was accommodated in two private buildings in the cantonment area of Tiruchirappalli town. Thanks to the interest and the trouble taken by the Collector of Tiruchirappalli Sri Ghulam Ahmad Badsha, a spacious building at No. 7, Alexander Road, was allotted to us by the Accommodation Controller. The rent demanded for the building namely, Rs. 250 per month was certified as reasonable by the Executive Engineer, Central Public Works Department. The building was taken over by us on 14th November, 1960. Since we decided to allot the rural slips of three districts to this office, the accommodation available was found inadequate and we were on the look out for another building. Once again, we were fortunate, largely due to the influence of the Collector and the trouble taken by him, in getting an adjacent building, equally spacious. The two buildings situated adjacent to each other were very convenient to us to locate the tabulation office and the second building was taken over by us on 1st March, 1961. The rent for this building was fixed at Rs. 275 per month. Furniture for the Tiruchirappalli office were obtained locally. The lowest rates quoted by the St. Joseph's Industrial School were accepted, and besides the rates being reasonable, the quality of the furniture supplied by them was also good. The steel boxes, however, were supplied from Madras.

159. Rural slips of Tiruchirappalli, Thanjavur and Madurai districts were tabulated in this office and the staff position of this office at various stages are indicated in the statement below:

As on the 1st of the month	Sorters	Com- piler Check- ers	Super- visors	Tabu- lation Assis- tants	Statistical Assis- tants
<b>1961</b>					
May . . . . .	180	..	18	..	1
June . . . . .	136	36	17	1	1
July . . . . .	199	50	22	5	..
August . . . . .	196	50	25	5	1
September . . . . .	200	49	25	4	1
October . . . . .	198	49	25	4	1
November . . . . .	202	50	25	5	1
December . . . . .	194	52	25	5	1
<b>1962</b>					
January . . . . .	34	33	6	4	1
February . . . . .	33	33	6	4	1
March . . . . .	42	33	9	..	1
April . . . . .	48	27	9	..	1
May . . . . .	31	10	5	..	..
June . . . . .	30	10	5	..	..
July . . . . .	25	9	5	..	..
August . . . . .	14	5	2	..	..
September . . . . .	12	4	1	..	..
October . . . . .	10	3	1	..	..
November . . . . .	6	3	1	..	..
December . . . . .	6	2	1	..	..
<b>1963</b>					
January . . . . .	3	1	1	..	..
February . . . . .	1	1	1	..	..

160. This office was headed by Sri Gajendran, Deputy Superintendent of Census Operations and he was assisted by Sri V. Dasappan, a Tahsildar of the Revenue Department, who was appointed as the Tabulation Officer. After the completion of the work, this office was closed on 28th February, 1963, by which time the staff had also been reduced to the minimum requirements. The buildings were released to the Accommodation Controller and the surplus furniture was locally auctioned. The superior varieties of furniture along with the records were transferred to the Royapuram Office.

#### REGIONAL TABULATION OFFICE, TUTICORIN

161. This office was located in a spacious building at No. 145, Ettayapuram Road, Tuticorin. The total plinth area of the building including the verandahs was 11,760 square feet. The rent for the building was fixed at Rs. 600 per month which was duly certified as reasonable by the Executive Engineer, Public Works Department. This building was taken over by us on 1st December, 1960. Subsequent to the occupation of the building, certain additional improvements like providing partitions and lunch rooms, etc., were found necessary and these improvements were carried out by the owner of the building at a total cost of Rs. 3,650. The owner required us to pay 50% of the cost of the improvements, but, we found it difficult to agree to this. We requested the Executive Engineer, Public Works Department to inspect the building and to tell us whether any enhanced rent should be paid in view of the additional improvements carried out. The Executive Engineer inspected the building and fixed a rent of Rs. 649 per month, taking into account the additional improvements and facilities provided by the owner. As this amount was beyond the financial powers of the Superintendent of Census Operations, we addressed by Registrar-General to obtain the sanction of the Home Ministry, for payment of rent to this building. The furniture for this office were obtained from Madurai. The contractor at Madurai agreed to make the furniture and transport them at his cost, to Tuticorin. The rates demanded by him, including the cost of transport, seemed reasonable and on par with the charges paid by us for other offices. So, we accepted that offer and the furniture was also supplied in good time.

162. The slips tabulated in this office related to the rural areas of Ramanathapuram, Tirunelveli and Kanyakumari districts. The staff employed in this office on various dates is indicated in the following statement:—

As on 1st of the month	Sorters	Compiler Checkers	Supervisors	Tabulation Assistants	Statistical Assistants
1	2	3	4	5	6
<b>1961</b>					
April	64	..	14	..	..
May	137	12	15	1	..
June	205	27	25	1	..

	1	2	3	4	5	6
July	..	204	28	25	1	..
August	..	199	26	20	3	1
September	..	176	41	18	4	1
October	..	171	40	20	4	..
November	..	164	41	20	5	..
December	..	146	40	20	5	..
<b>1962</b>						
January	..	49	39	17	4	1
February	..	52	32	4	4	..
March	..	..	..	8	4	..
April	..	..	..	1	..	..

163. This office was headed by Sri E. M. Jayaraj, who was assisted by Sri P. Vasudhev, Tabulation Officer. On completion of the work, the office was closed on 30th April, 1962. The building was released to the owner and the surplus furniture along with the records were transported to the Tiruchirappalli office in the first instance from where they were later on brought to the Royapuram office along with the records of Tiruchirappalli office.

#### NUNGAMBAKKAM TABULATION OFFICE

164. We had indicated earlier the factors which led us to construct a temporary shed adjacent to the main office at Nungambakkam in order to accommodate the tabulation unit engaged in the tabulation of houselists. After the completion of the houselisting tabulation, a part of the general tabulation was also undertaken here. We had also referred to the inadequacy of space in the St. Thomas Mount office and our inability to construct a temporary shed there to accommodate the staff. This resulted in the diversion of some work and staff to the Nungambakkam office, and we had to find additional accommodation to accommodate them. We finally decided to put up another temporary shed in the vacant space, to the left of the main building. The same factors which prompted us to ask the house-owner to construct the first shed weighed with us, when we asked him to construct the second shed for accommodating the general tabulation staff. The house-owner agreed to construct this second shed also on identical terms, namely, that we pay a monthly hire charge of Rs. 500 for the materials used in the construction of the shed. This shed was also constructed in good time and we occupied it by April, 1961. The audit objection to the construction of the second shed was also replied to on the same lines as we had done in the case of first shed and these have been dealt in detail in Chapter I.

165. Both rural and urban slips were tabulated in this office. Rural slips relating to Chingleput district and urban slips relating to Chingleput, South Arcot, Nilgiris, Tirunelveli and Kanyakumari districts were tabulated in this office. The staff employed at various stages for the general tabulation work are

indicated in the following statement.

As on 1st of the month	Sorters	Com- piler Check- ers	Super- visors	Tabula- tion Assis- tants	Statis- tical Assis- tants
1	2	3	4	5	6
<b>1961</b>					
May . . .	133	24	15	3	..
June . . .	123	28	12	3	..
July . . .	170	39	17	3	1
August . . .	155	39	16	5	1
September . . .	149	38	20	6	1
October . . .	154	36	18	5	1
November . . .	152	29	22	5	1
December . . .	128	29	24	4	1
<b>1962</b>					
January . . .	36	35	9	2	1
February . . .	6	7	7	2	1

	1	2	3	4	5	6
March . . .		5	8	5	..	1
April . . .		4	12	7	..	2
May . . .		6	13	7	..	2

166. This office was headed by Sri T. B. Bharathi who was assisted by Sri Panchapakesan, Tabulation Officer. After the completion of the tabulation work in this office, the tract-wise tables prepared here were sent to the central tabulation unit at Royapuram for consolidation of the State Tables. The second shed constructed was released to the house-owner on May 1, 1962 when the Nungambakkam tabulation office was closed. The surplus furniture and other equipment were added to the stock of the main office and disposed off along with it by public auction.

## CHAPTER IV

### TABULATION OF HOUSEHOLD SCHEDULES

#### SCOPE AND CONTENT OF THE HOUSEHOLD SCHEDULE

167. Household schedule is a special feature of the current Census. It was devised to collect information about the two main economic activities of the households *viz.*, cultivation and household industry. It contained questions regarding the extent of land cultivated, the nature of interest in the land, number of workers engaged in cultivation, the nature of household industry carried on etc. The household schedules also contained information about the Scheduled Castes and Tribes. On the reverse of the household schedule, was the Census Population Record which contained essential information about all the members in the household like name, age, marital status, description of work etc.

#### THE ECONOMIC TABLES

168. Besides the general economic tables compiled from the returns in the individual slips, it was also proposed to prepare household economic tables based on the data collected in the household schedules. The B-series tables published by us consists of 17 economic tables, out of which, tables I to IX deal with individual economic activities and are based on the returns in the individual slips. Tables B-X to XVII are based on the returns in the household schedules. These are known as the household economic tables as they deal with the economic activities of the households like cultivation and household industry. Besides these, a special table on the Scheduled Castes and Tribes has also been prepared. The household economic tables are detailed below. These are based on a 20% sample.

#### HOUSEHOLD ECONOMIC TABLES

169. *B-X*.—Occupational classification of sample households *viz.*, households engaged in cultivation only, households engaged in household industry only, households engaged in both these occupations and households engaged in neither of these occupations.

*B-XI*.—Classification of cultivating households according to the size of the holdings and the nature of interest in land.

*B-XII*.—Classification of cultivating households according to the size of the land cultivated and the number of family workers and hired workers engaged.

*B-XIII*.—Classification of households engaged both in cultivation and household industry according to the size of land cultivated cross-classified with the principal household industry.

*B-XIV*.—Classification of households engaged in household industry only according to the principal household industry. This table has two parts. Part A classifies principal household industry by major

groups of standard industrial classification and by the number of persons engaged. Part B classifies the household industries by minor groups of industrial classification.

*B-XV*.—Classification of households engaged both in cultivation and in household industry according to the size of the land cultivated.

*B-XVI*.—Classification of principal industries by the duration and the total number of workers engaged in them.

*B-XVII*.—Classification of households according to the size of the households and the occupations. This Table also classifies cultivating households according to the size of the holdings.

*SCT. V*.—This Table is identical with B-XI, but this has been prepared only for the Scheduled Castes and Scheduled Tribes. This Table has two parts *viz.*, Part A dealing with Scheduled Castes and Part B dealing with Scheduled Tribes. Unlike the other Tables where both rural and urban figures have been furnished, this Table presents only rural figures.

#### MECHANICAL TABULATION OF THE SAMPLE

170. Unlike the case of individual slips which were hand sorted in the Regional Tabulation Offices, it was decided to tabulate the household schedules mechanically at Delhi. Another salient feature of the household economic tables is that these are based on a 20% sample unlike the general economic tables which are based on a full count. Explaining the decision to confine these tables to a 20% sample, the Registrar-General stated "the preparation of the economic tables for the next Census *i.e.* 1961, for general tabulation will definitely take more time and the cost is likely to be much greater than that of 1951 Census. If tabulation for household tables is also undertaken for the entire body of household schedules, there will be further increase in time and cost; hence the decision to prepare the household economic tables on a 20% sample basis". After careful consideration, it was decided to tabulate the household schedules mechanically as a pilot measure in the Census. But this decision lessened our work only to a slight extent because the selection of samples and coding had to be done manually and machines could not substitute men for these items of work. We were asked to select the sample household schedules, code them and then despatch them to Delhi for mechanical tabulation.

#### MODE OF SAMPLING

171. The samples were selected as per Registrar-General's instructions which ran as follows:

"For the purpose of tabulation, every fifth household from the starting random household will be selected to make a 20% sample. The sample households

will be marked continuously for rural areas of a taluk and for the urban areas of a district *i.e.*, households left over in a household pad (relating to a particular village) should be carried over to the next household pad (relating to another village in the same taluk) in the selection of sample households. Before marking sample households, the household schedule pads should be arranged in the order of location code numbers of villages in a taluk in the case of rural areas and in the order of enumerator's blocks in the case of urban areas of the district. The first sample household should be chosen at random among the first 5 households in the first household pad and it should be stamped "S". This random number or the random start should be chosen separately for rural areas of each taluk and for the urban areas of the district. From the first random household, every fifth household should be continuously stamped as selected. A rubber stamp will have to be specially prepared for that purpose. The sample should be continuously marked for all the pads of villages in a taluk and for all the urban areas in a district. If in a particular household schedule pad, a few schedules (say 2, 3, or 4) are left after marking of the sample households, the households left over should be carried over to the next household schedule pad and the appropriate household in that pad should be marked as a sample household."

#### MODUS OPERANDI

172. As a first stage in this work, all the household schedule pads were arranged in the order of location code numbers of villages in a taluk, and for the urban areas, they were arranged in the order of location code numbers of all the towns in a district. The household schedule pads of each town were arranged in the order of enumerator block numbers. These blocks were numbered with the help of colour pencils in the ascending order. For the rural pads, one serial order was followed for each taluk and for the urban pads, all the pads relating to a district were numbered in one separate serial order. This work was entrusted to 8 Sorters in the initial stages and they worked in teams of 2 each. One of them had arranged the pads in the specified order of location code numbers and the other did the numbering. This preliminary work helped us to trace the household schedule pads which were misplaced, before sampling was undertaken. A team of 2 persons were able to arrange and number about 4,000 pads per day. After the commencement of sampling work, the number of teams engaged in arranging the pads and numbering them, were proportionately increased and a maximum number of 20 people attended to this work at one stage.

173. As indicated earlier, the selected samples had also to be coded to facilitate quick and easy classification at the stage of tabulation. The mechanics of coding would be discussed later in this Chapter. We arranged these 3 items of work *viz.*, arrangement of pads, selection of samples and coding of sample slips, as a chain operation so as to maintain continuity and to facilitate quick work. The team

engaged in arranging and numbering the pads handed over the pads, after their work to the sampling team for the selection of samples. A sampling team consisted of 5 persons and after the selection of samples, the schedules were handed over to the coding team.

174. The *modus operandi* of the sampling team is detailed below. Sorter No. 1 counted the total number of schedules in the pad. Before counting, he located the schedules relating to institutions and folded them in order to avoid those schedules being inadvertently sampled. This was in pursuance of the Registrar-General's instructions that institutions were to be excluded from the scope of household tabulation. After counting the number of household schedules and the number of schedules relating to institutions and entering them in a separate sheet, the pads were passed on to Sorter No. 2 who with reference to the random start number already furnished to him, selected the sample schedules. The selected sample schedules were stamped as 'S' with the help of rubber stamp. After stamping the selected schedules, the pads were transferred to Sorter No. 3 who was entrusted with the task of detaching the schedules without mutilating the pads. He was assisted by a peon in removing the pins and clips which fastened the household schedules. The sample schedules of each village and urban enumeration block bore an identification slip containing information about the name of the unit, total number of households in the unit and the number of samples selected. This identification slip not only helped us to identify the unit to which the sample belonged, but also to overcheck and ensure the correctness of sampling. The remaining 2 members of the team checked the entries in the sample schedules for internal consistency. Each Sorter was able to scrutinise about 1,000 to 1,500 schedules per day.

#### CODING

175. The next stage was the coding of sampled slips. To facilitate easy classification and tabulation, the various characteristics or returns to be tabulated were coded either by giving numerical codes or alphabetical codes. The codes to be assigned to the returns in the household schedule were circulated by the Registrar-General. For the purpose of coding, we had trained intensively a selected batch of Sorters and Compiler Checkers so as to maintain a high degree of accuracy. Each coding team consisted of 9 persons and each person was entrusted with the task of coding a particular item in the schedule. For example, one Sorter coded the tenure of holding, another coded the nature of household industry, yet another coded size of land owned, the 4th person coded the entries in the Census Population Record and so on. On the whole, the work of coding was done by 7 Sorters and the remaining 2 persons in the team scrutinised the code numbers to ensure the correctness of coding. The code numbers were entered against the relevant column in green ink so as to distinguish them from the regular entries in blue or black ink in the schedules. The Supervisor and the Statistical Assistant made a test-check of the work of the teams.

**DESPATCH OF SCHEDULES TO DELHI**

176. After a thorough check of the coded slips they were bundled in the manner required by the Registrar-General and despatched to Delhi in batches. Rural slips of each taluk and urban slips of each district were packed separately. A statement showing the total number of households in the unit and the number of households sampled out, was enclosed along with each bundle. The first consignment of sample household schedules was despatched on 4-1-1962 and despatch of all the sample schedules was completed by 14-3-1962. These schedules, after the mechanical tabulation at New Delhi, were received back in two consignments on 7-1-1963 and on 1-2-1963. They are preserved in the Record Room, separately as they have been received from Delhi.

**MAIN TABLES**

177. The household economic tables compiled by mechanical tabulation were received in this office on 31-7-1963. The tables B-X to B-XVII are presented in Part III of our publications and the Table SCT. V is presented in Part V of our publications along with the other tables relating to Scheduled Castes and Scheduled Tribes.

**SUBSIDIARY TABLES**

178. Besides these main tables, 12 subsidiary tables have also been compiled. These subsidiary tables were compiled in our office with the figures in the main tables as the basis. They present salient features of the main tables in the form of proportions or percentages. The subsidiary tables are detailed below:

*Table B-X. 1.*—This shows the distribution of 1,000 sample households into households engaged either in cultivation or household industry, households engaged both in cultivation and household industry and households engaged neither in cultivation nor in household industry.

*Table B-XI. 1.*—This presents the distribution of 1,000 sample households which are engaged in cultivation according to the size of the land cultivated and the nature of interest in the land.

*B-XII. 1.*—This classifies 1,000 cultivating households according to the size of the land cultivated. This has been prepared only for the rural areas.

*B-XII. 2.*—This also has been prepared only for the rural areas. This classifies 1,000 cultivating house-

holds according to the size of the land cultivated and the number of workers engaged in cultivation.

*B-XII. 3.*—This classifies 1,000 cultivating households according to the size of the land cultivated and the number of family workers as well as hired workers engaged. The number of cultivating households engaged in household industries have also been indicated in this table.

*B-XII. 4.*—This presents the average number of family workers and hired workers per cultivating household cross-classified by the size of the holding.

*B-XIV. A-1.*—This classifies 1,000 sample households engaged in household industry according to the principal household industry and the number of workers.

*B-XIV. B-1.*—This presents the classification of 1,000 sample households according to the principal household industries classified into industrial divisions, major and minor groups.

*B-XVI. 1.*—This classifies 1,000 sample households according to the principal household industry and the period for which the household industry is carried on. The number of households engaged in cultivation besides the household industry, are also indicated in this table.

*B-XVI. 2.*—This classifies 1,000 sample household workers engaged in household industries with or without cultivation, as family workers and hired workers. The household industries have also been classified according to the duration.

*B-XVI. 3.*—This gives the average number of family and hired workers per household engaged in household industry with or without cultivation. The duration of household industry has also been indicated.

*B-XVII. 1.*—This shows the distribution of 1,000 sample households according to the size of the household.

179. The subsidiary tables were compiled from the main tables. Working sheets were prepared by the Lower Division Clerks with reference to the instructions on the preparation of these tables. The multiplications and divisions involved were worked out by the Comptists. These figures were once again scrutinised by the Lower Division Clerks and they were rounded up to two decimal points. The figures were then fair-copied into the prescribed table forms.

## CHAPTER V

### SPECIAL TABULATION

#### SPECIAL STUDIES

180. It has been one of the well established traditions of Census to undertake many special studies and surveys as supplementary projects of the Census count to enrich the Census literature. As observed by the Registrar-General, "apart from laying the foundation of demography in this sub-continent, a hundred years of the Indian Census has also produced an elaborate and scholarly accounts of the variegated phenomena of India's life...relating to nearly every branch of scholarship from Anthropology and Sociology to Geography and Religion". In continuation of the tradition, we undertook several special studies as supplementary projects of 1961 Census. The various special studies undertaken by us both at the instance of the Registrar-General as well as on our own initiative are dealt in greater detail in the companion Administration Report on Enumeration. In this Chapter, we propose to deal with 3 special studies which entailed elaborate tabulation and the problems connected with these special tabulations. The special studies dealt with here are the Fertility survey, the Metropolitan survey and the survey of Scheduled Castes and Scheduled Tribes.

#### FERTILITY SURVEY

181. The object of this fertility survey was to collect information on the fertility pattern of Indian women and incidentally to obtain information on the working-force. Suggesting this survey to be undertaken, the Registrar-General in his letter dated 11-10-1961 said, "it is important to find out correctly the information on each item (of the fertility questionnaire) as without this type of fertility survey, it will be very difficult for the Census to hand down to the Planning Commission and the State Governments, reliable material for population projections of the country. I do, therefore, hope that this survey will be acclaimed with the same enthusiasm as other Census projects".

182. The fertility survey was to be a sample survey confined to the enumerators blocks where the post enumeration check was carried out viz., 1% of the rural blocks and 2% of the urban blocks. The survey was to cover all the ever married women in the sample blocks unlike the still married women covered in the fertility surveys conducted earlier. An individual slip containing detailed information about the marital status, age, number of children, age of the children and various other relevant data on the fertility of the ever married women and a household schedule containing general particulars about the household were to be filled in during this survey. The prescribed tables were to be compiled from the returns obtained in these schedules. The sample schedules along with the details of the scheme, were circulated by the Registrar-General towards the end of October, 1961

and he suggested that a pilot survey should be conducted in a few blocks to find out whether the questions are acceptable and whether the instructions are comprehensive. This pilot survey was to be conducted both in rural as well as in urban blocks.

#### THE PILOT SURVEY

183. Accordingly the pilot survey was conducted in the following blocks :

1. Madras City—Division 50—Enumerator's Block 6.
2. Cuddalore Town —Varakalpet Blocks I and II.  
Pudupalayam Blocks I and II.
3. Koothappar village in Tiruchirapalli taluk.
4. Karambakudi in Alangudi taluk.
5. Perianaickenpalayam and Vellakarai in Coimbatore taluk.
6. Coimbatore Municipality—Ward No. 2.
7. Kottarakurichi in Srivaikuntam taluk.
8. Tiruchendur panchayat—Block No. 8.

The pilot survey was entrusted to the respective Regional Tabulation Offices and as suggested by the Registrar-General, we made use of the tabulation staff for conducting the survey after training them. Two Sorters and one Compiler Checker were deputed to conduct the survey in each block and the pilot survey in these Blocks was completed by the third week of December, 1961. The filled in schedules were tabulated at Madras and the tables prescribed by the Registrar-General were prepared.

#### DIFFICULTIES ENCOUNTERED

184. From our experience of the pilot survey, we did not consider any change in the questionnaire necessary. The difficulties we encountered related mainly to the reluctance of the parties to furnish the required particulars. In the rural areas, people especially the women-folk considered the questions on fertility as an intrusion into their private affairs and were reluctant to furnish the information. The same tendency was also noticed in some of the urban areas but this was mitigated when the purpose of the survey was explained to them. In the rural areas, the difficulty was overcome to a large extent, by asking the village munsiff or the Karnam to accompany the Sorters. The Village Officers extended full co-operation for which we take this opportunity to record our appreciation. There was also a tendency to conceal particulars about abortion cases. Remarried widows in many cases were not prepared to reveal complete information. The Village Officers who were residents of the village and who knew the local conditions, helped us to a great extent to get accurate and adequate particulars. In the light of our experience gained in the pilot survey, we were able to train the staff in a thorough manner and the survey proved to be greater success than we anticipated.

## AREAS COVERED

185. As indicated earlier, the fertility survey was a sample survey confined to 1% of the rural blocks and 2% of the urban blocks. The number of blocks covered by this survey in each of the districts are indicated in the following statement:—

District	No. of urban blocks	No. of rural blocks
Madras City	47	..
Chingleput	14	25
North Arcot	18	38
South Arcot	12	39
Salem	16	49
Coimbatore	27	37
Nilgiris	7	3
Madurai	28	33
Tiruchirapalli	20	38
Thanjavur	20	36
Ramanathapuram	21	29
Tirunelveli	26	27
Kanyakumari	5	15
<b>TOTAL</b>	<b>261</b>	<b>369</b>

186. The conduct of the survey was entrusted to the respective Regional Tabulation Offices, where the general tabulation work had made considerable progress and the staff required for the survey could be spared without dislocating the work. The details of the areas covered by each office, the staff employed and the time taken for the conduct of the survey are indicated in the following statement:—

Tabulation Office	Areas covered	Staff employed	Date of commencement of the survey	Date of completion of the Survey
Regional Tabulation Office, Royapuram.	Madras City	132	5-2-1962	21-2-1962
	Chingleput		19-1-1962	27-1-1962
Regional Tabulation Office, Cuddalore.	South Arcot & North Arcot districts.	58	20-1-1962	20-2-1962
Regional Tabulation Office, Coimbatore.	Salem, Coimbatore and Nilgiris.	86	1-2-1962	25-2-1962
Regional Tabulation Office, Tiruchirapalli.	Tiruchirapalli, Thanjavur, & Madurai.	52	22-1-1962	28-2-1962
Regional Tabulation Office, Tuticorin.	Ramanathapuram, Tirunelveli and Kanyakumari.	75	29-1-1962	17-2-1962

Thus the survey was completed in all the areas by the end of February. The forms for the survey were supplied from the main office. As we had very little time to get these forms printed, we decided to make use of the duplicating machine in our office and to cyclostyle the forms. Detailed instructions regarding the training of the staff and instructions for conducting the survey and tabulating the data, were also roneoed and circulated to the tabulation offices. Thus huge roneoing work consumed a lot of bleaching paper which was in short supply; but we met the shortage temporarily by borrowing from other offices.

## TABULATION

187. After completing the field survey, the Regional offices were asked to take up the tabulation of this data as they had completed bulk of the work relating to general tabulation by that time. As we had decided to wind up the Regional Tabulation Office, Tuticorin by April 1, 1962, the schedules relating to Ramanathapuram, Tirunelveli and Kanyakumari Districts were tabulated at the Regional Tabulation Office, Cuddalore which was ahead of the other offices in the general tabulation work. The Registrar-General prescribed 11 tables and these tables were prepared separately for rural and urban areas of the districts. The final consolidation of the State tables was done at the Royapuram Tabulation Office, after the district tables were received from the Regional offices. One Upper Division Clerk, 10 Lower Division Clerks and 6 Sorters were employed for the consolidation work at Royapuram from 16-2-1962 to 3-5-1962 when the staff was reduced to one Upper Division Clerk and 4 Lower Division Clerks. The entire tabulation work was completed by 26-5-1963.

## TABLES PREPARED

188. For the purpose of fertility tabulation, the women were grouped into four broad categories, as detailed below:—

Category A consists of women married only once and still in married state.

Category B refers to women married only once but now widowed or divorced.

Category C includes women married more than once and in married state now.

Category D relates to women married more than once but now in widowed or divorced state.

Fertility data have been presented separately for each of these categories of women in the following series of tables:—

*Table A-I.*—This presents the number of women classified by age groups and number of children born. These have been cross-classified with 5 other characteristics viz., Religion, educational attainment of the woman, nature of her work, type of industry in which she is employed and husband's educational standard. Thus, the total number of children born to women of various age groups are indicated in this Table according to the characteristics noted above. The average number of children for women of different age groups can be found from this table and the influence of characteristics like religion, women's education, nature of work etc. on the number of children will also be reflected in this table.

*Table A-II.*—This table classifies women according to the age group and indicates the number of still births and live births during the last 12 months. Live births have been classified as single and multiple births while still births have been classified into still births after six months of pregnancy and still births within six months of pregnancy. These data have been cross-classified with other characteristics like religion, education, nature of work etc. as in Table A-I.

*Table A-III.*—This Table deals with women above the age of 38. They have been classified according to their age and the age of their youngest children.



*Table A-IV.*—This Table classifies women according to their effective age at marriage and by the total number of children born.

*Table A-V.*—This table classifies women according to the effective age at marriage, religion and educational standard. This will indicate whether there is any variation between one religion and another, regarding the age at marriage and also whether education of women influences the age of marriage.

*Table B-I.*—This is similar to Table A-I and presents the number of women in each age group classified by the number of children.

*Table B-II.*—This Table is similar to A-IV. This was prepared for the women aged 48 and above, who were in married state till 45. They have been classified by the age at marriage and the number of children born.

Two tables were prepared for the C category.

*Table C-I.*—This is similar to Table A-I and B-I but this relates to women married more than once and in married state at the time of enquiry.

*Table C-II.*—This classifies women by the age groups and the number of times they were married. It also furnishes the number of live births and still births during the last 12 months. An additional Table was prepared for the graduates.

*Table D-I.*—This Table is similar to Table A-I but relates to women married more than once and now in widowed or divorced state.

*Table D-II.*—This Table is similar to Table C-II and gives particulars about the number of times the women of each age group were married.

#### SPECIAL TABLES ON SCHEDULED CASTES AND SCHEDULED TRIBES

189. The general tabulation plan discussed in Chapter III, included five tables on the Scheduled Castes and Scheduled Tribes. In addition to these, we decided to prepare some additional Tables for the Scheduled Castes and Scheduled Tribes to aid us in the preparation of monographs and ethnographic notes on Scheduled Castes and Scheduled Tribes. These special Tables contain classification of characteristics which were not available in the Tables prescribed by the Registrar-General. The procedure of tabulation was, however, similar.

190. The following four special Tables were prepared and each Table consisted of 2 parts *viz.*, Part A relating to Scheduled Castes and Part B relating to Scheduled Tribes:—

1. SCT-VI:— Age and education.
2. SCT-VII:— Occupational classification of non-agricultural workers.
3. SCT-VIII:— Classification according to the place of birth.
4. SCT-IX:— Migrants classified by the places of birth and durations of residence in the place of enumeration.

These Tables furnished data for each of the Scheduled Castes and Scheduled Tribes enumerated. After the general tabulation, the slips relating to Scheduled 1 Census/Madras/64—8.

Castes were kept separately. These were taken and resorted to prepare the four additional Sorters tickets devised by us and from these tickets the compilers posting statements were compiled which served as the basis for the Tables.

#### TERRITORIAL RESTRICTIONS IN THE CLASSIFICATION

191. One difficulty which encountered us in the preparation of Tables relating to Scheduled Castes and Scheduled Tribes arose out of the territorial restriction in the classification of Scheduled Castes. Some of the castes have been declared as Scheduled Castes in some districts and non-scheduled castes in some other districts in the President's order. This territorial restriction was overlooked at the time of sorting with the result that certain castes who should be treated as Scheduled Castes only in a particular district, were treated as Scheduled Castes in other districts also. On instructions from the Registrar-General the slips relating to the castes to whom the territorial restrictions applied, were resorted and the figures of Scheduled Castes were compiled taking into consideration the area restrictions indicated in the President's order. The figures of Scheduled Castes and Scheduled Tribes in the Tables as well as in the Primary Census Abstracts underwent modifications, as a result of this resorting.

#### STUDY OF MIGRATION TO MADRAS

192. Metropolitan survey included a detailed study of migration to Madras City. This entailed special sorting for migrants. This was taken up at the instance of the Registrar-General who felt that a detailed study of the demographic and economic characteristics of the migrants to cities with reference to their places of origin and duration of residence in the city, would be useful. This special sorting, involved the cross-tabulation of the following characteristics of the migrants:—

1. Place of birth with rural/urban break up.
2. Duration of residence.
3. Sex.
4. Age.
5. Religion.
6. Educational standard.
7. Marital status.
8. Classification of workers according to the occupational divisions and groups and industrial divisions and groups.
9. Class of workers in household as well as in non-household industries.

This involved the preparation of 9 Sorters tickets, 14 compiler posting statements for the compilation of the 7 tables detailed below:—

*Table I.*—Classification of migrants into nine categories of workers, age groups and educational standards.

*Table II.*—Classification of migrants according to their places of origin and religion.

*Table III.*—Cross-classification of religions and durations of residence of the migrants.

*Table IV.*—Cross-classification of places of birth, durations of residence and educational standards of the migrants according to each category of workers and non-workers.

*Table V.*—Cross-classification of places of origin, durations of residence, age groups, educational standards and 2 digit occupational groups.

*Table VI.*—Cross-classification of places of origin, durations of residence, 2 digit industrial groups and class of workers.

*Table VII.*—Cross-classification of places of origin, durations of residence, age groups and marital status.

#### A PROBLEMATIC SCHEME

193. Madras City has a population of 17,29,141 persons of whom 6,42,828 (nearly 37.17%) are migrants. The special sorting had to be done for the 6,42,828 slips relating to the migrants. We commenced the sorting operations according to the original plan of the Registrar-General and we soon ran into a number of difficulties. Initially, we prepared the tickets for each of the 100 divisions of Madras City. The tickets were prepared for each of the birth places separately with rural/urban classification. The tickets had also to be prepared for the various categories of workers among males and females separately. According to the original plan of the Registrar-General, there were 83 entries under 'places of birth' i.e. 5 important districts of Madras State, other districts of Madras State, and 21 other States and Union territories of India. For each of these 27 places of birth, 3 classifications viz., rural, urban and unclassifiable had to be adopted. In addition to these, there were two other entries viz., migrants from other countries and migrants whose places of birth were unclassified. For some of the tickets, separate tickets had to be prepared for each of these 83 entries under 'places of birth'. Added to this, was the classifications according to the durations of residence, educational standards, categories of workers etc. Thus the number of sorting bundles to be handled were inordinately numerous and sometimes it involved the preparation of thousands of tickets. This, in turn, entailed the preparation of hundreds of compiler posting statements. We estimated that if the original plan of the Registrar-General was to be implemented *in toto* it would involve preparation of nearly 8 lakhs of compiler posting statements for all the tickets. This would not only make the sorting and compilation work too complicated and time-consuming but also, the tables to be prepared out of the compiler posting statements would look more like unwieldy compiler posting statements, rather than tables with consolidated and comparable data for ready reference. After all, the tables are prepared by us to analyse the data and to draw conclusions from them. These tables as devised by the Registrar-General, with a number of cross-classifications were not only voluminous and unwieldy but also involved a very cumbersome and time-consuming process of sorting and compilation, besides the large number of forms required for the tickets and compiler posting statements.

194. These difficulties set us thinking and we were curious to know how the scheme was being implemented in Maharashtra which had taken up a similar sorting for migrants to Greater Bombay. Sri Ramanathan, Deputy Superintendent of Census Operations was deputed to visit Bombay and to study how they had solved the difficulties involved in the scheme. The findings of Sri Ramanathan revealed that substantial modifications of the original scheme had been made in Bombay, as briefly indicated below:—

1. The entries under 'places of birth' have been abridged to a large extent not only by grouping the geographically contiguous areas but also by combining the two classifications of rural and unclassifiable.

2. In a number of tables figures have been presented for all categories of workers instead of detailing each category of worker as envisaged in the original plan of the Registrar-General.

3. The age groups have also been abridged suitably.

4. The detailed educational standards suggested by the Registrar-General were not adopted and in their place, convenient broad groups have been adopted and the classifications of duration of residence have also been modified. Besides these changes in the tabulation plan, they had devised a modified set of Sorters tickets and tables, of course, keeping in view the various characteristics to be cross tabulated. They had standardised the table-forms and ticket forms in such a way that tables could be compiled straightway from the tickets without the necessity of preparing compiler posting statements. These simplifications have not only facilitated speedy sorting and quick compilation but also have effected a large saving in the number of forms to be printed. These modifications sacrificed some useful information as not all the cross-classifications suggested by the Registrar-General were done.

195. We re-examined the scheme in the light of the modifications made by Bombay and suggested a few modifications of the original scheme. The modifications suggested by us were not as substantial as those adopted in Bombay and these did not sacrifice any information required by the Registrar-General in his original plan. We took advantage of the Registrar-General's visit to Madras during December 1962 and discussed our practical difficulties with him and suggested these modifications. The Registrar-General accepted most of our suggestions except those relating to the classification of workers into 2 digits—occupational and industrial groups. Since the number of classifications under the industrial and occupational groups were too many, we suggested that we could adopt the single digit classification instead of 2 digit groups. The Registrar-General felt that acceptance of this suggestion would sacrifice some useful information and suggested that we could combine insignificant groups together and exhibit separate figures only for the important industrial and occupational

groups. The essence of other suggestions made by us and accepted by the Registrar-General are as follows :—

1. Since it was felt unnecessary to present all places of birth, it was decided to present only those districts in the State and those States, which have contributed more than 10% of the migrants from within the State and migrants from outside the State. The other districts were grouped separately and so also the other States. The countries outside India were grouped together except Nepal and Pakistan. It was also decided to eliminate the entry 'unclassifiable' and to retain only rural and urban classifications. After these modifications, the entries under column 'places of birth' were reduced from 83 to 22.

2. The second important modification related to abridgement of age groups and omission of the residuary column 'age not stated.'

3. Similarly the unspecified duration of residence was also eliminated but the figures were included in the totals.

4. According to the original plan, single year returns were to be shown in the table on marital status. It was decided to present the entries according to age groups instead of four single year ages.

5. As indicated earlier, the industrial and occupational groups were presented according to 2 digit classifications but the number of entries were reduced by combining insignificant groups.

6. It was also decided to combine Tables II and III as suggested by us. Table II involved a cross-classification of places of birth and religion and Table III cross-classification of religion and duration of residence. These two were combined into a single table which involved the cross-classification of all the 3 characteristics viz., religion, place of birth and duration of residence.

7. We had earlier decided to abridge the unit of sorting also from ticket No. 5 onwards. Up to ticket No. 5, the slips were sorted for each of the 100 divisions of Madras city and from ticket 5 onwards we combined the slips of all divisions into convenient zones devised by us on the basis of the predominant characteristics of the divisions. The zones devised by us were:—

1. Predominantly industrial areas;

2. Trade and commercial areas;

3. Old residential areas;

4. New residential areas.

At the stage of compiling the tables also we had adopted these zones and prepared tables for each zone.

196. These modifications, no doubt, simplified the scheme to some extent, but we had by that time sorted out five tickets according to the original plan which involved the preparation of thousands of tickets. If these modifications had been thought of earlier and the plan simplified, it would have saved a lot of time and effort. Even with all these modifications, the process of compilation proved a cumbersome and complicated one to say the least. To say it in the words of our Superintendent "we accepted the scheme without much thought; one word of caution I must record for my successor. It is necessary to scrutinise any scheme in detail before agreeing to implement it because in actual implementation such difficulties may arise which are incapable of solution".

#### TIME TAKEN

197. The special sorting for migrants commenced on 20-2-1962 and the sorting for all the 9 tickets was completed on 15-12-1962. The first item of work consisted of separation of migrants slips from the slips relating to Madras City. After this, the sorting for tickets 1 to 9 was taken up in serial order. Four teams, each consisting of 8 Sorters, 2 Compiler Checkers and 1 Supervisor, attended to this sorting. The sorting was done at the Royapuram Tabulation Office and a Statistical Assistant helped the Deputy Superintendent in supervising and checking this work. After the completion of sorting in December 1962, compilation of Tables from the Sorters ticket was taken up and this work was allotted to a team consisting of 10 Lower Division Clerks and 1 Upper Division Clerk. Compilation of Tables 1 to 4 and 7 was completed by October 1963 after which, Tables 5 and 6 were taken up. Tables 5 and 6 are the most complicated and elaborate one among the series and these tables took us nearly 4 months to compile. The entire work was completed by February 1964. While consolidating the Tables, the figures in each Table were tallied and cross-checked with the other Tables as well as with the figures in the D-series tables, so as to ensure the accuracy of the figures.

**CHAPTER VI**  
**FINANCE AND ACCOUNTS**

**COST OF ENUMERATION**

198. In the companion volume on enumeration, our Superintendent had dealt in detail, with the delegation of financial powers, adequacy or otherwise of it, the accounting procedure and the problems connected with the financial administration. We do not wish to repeat the same here. In this Chapter, we have briefly indicated the expenditure incurred on tabulation, including the miscellaneous costs like the bonus paid to the sorting and tabulation staff. It has been indicated in the Administration Report on Enumeration that the total expenditure incurred on enumeration till the end of 1960-61 amounted to Rs. 12,59,218. Besides this, a sum of Rs. 8,22,306 was incurred on enumeration during the year 1961-62 and another sum of Rs. 14,441 during the year 1962-63. The expenditure on enumeration incurred in 1962-63 represents payments of arrears of pay and allowances to the clerical staff appointed in the districts like Collectors' office clerks, Taluk office clerks and Municipal clerks, posted specially for the Census work. It also represents the belated claims of travelling allowances, honoraria paid to the enumeration staff and the propulsion charges of jeeps not claimed during the previous years. The total expenditure on enumeration up to the end of 1962-63 amounted to Rs. 20,95,965. This works out to a *per capita* expenditure of 6.22 nP.

**COST OF TABULATION**

199. In the middle of 1960, seven Deputy Superintendents were appointed for Census work. Though they were meant to take charge of the tabulation offices, they were appointed early, so that they could assist the Superintendent in training the enumerators and in the other preliminary arrangements. In the first instance, the Deputy Superintendents had their headquarters at Saidapet, Vellore, Coimbatore, Tiruchirappalli, Madurai, Palayamkottai and at Madras. After the enumeration, the tabulation offices were located at Nungambakkam, Royapuram and St. Thomas Mount at Madras, besides the four regional offices at Cuddalore, Coimbatore, Tiruchirappalli and Tuticorin. The cost of tabulation includes the cost incurred in all the seven tabulation offices, besides the cost of housing tabulation and the expenditure on the offices of the Deputy Superintendents at Saidapet, Vellore, Madurai and Palayamkottai which were wound up after the enumeration. The total expenditure incurred on tabulation to the end of March 1963 is detailed below:—

Head of Account	Actual expenditure in 1960-61
<b>Rs.</b>	
<i>C. Abstraction and compilation</i>	
C. 1 Pay of Officers . . . . .	18,855
C. 2. Pay of Establishment . . . . .	1,18,501
C. 3. Allowances, Honoraria etc. . . . .	16,969
C. 4. Other charges . . . . .	45,713
<b>TOTAL . . . . .</b>	<b>2,00,038</b>

Head of Account	Actual expenditure in 1961-62
<b>Rs.</b>	
<i>A. Superintendence</i>	
A. 1. Pay of Officers . . . . .	31,576
A. 2. Pay of Establishment . . . . .	2,59,595
A. 3. Allowances, Honoraria etc. . . . .	82,215
A. 4. Other Charges . . . . .	1,18,359
<b>TOTAL . . . . .</b>	<b>4,91,745</b>

Head of Account	Actual expenditure in 1961-62
<b>Rs.</b>	
<i>C. Abstract and compilation</i>	
C. 1. Pay of Officers . . . . .	53,351
C. 2. Pay of Establishment . . . . .	16,63,647
C. 3. Allowance, Honoraria etc. . . . .	78,010
C. 4. Other Charges . . . . .	1,90,850
<b>TOTAL . . . . .</b>	<b>19,85,858</b>
<b>Total expenditure for 1961-62 . . . . .</b>	<b>24,77,603</b>

Head of Account	Actual Expenditure in 1962-63
<b>Rs.</b>	
<i>A. Superintendence</i>	
A. 1. Pay of Officers . . . . .	41,376
A. 2. Pay of Establishment . . . . .	2,98,475
A. 3. Allowances, Honoraria etc. . . . .	1,07,075
A. 4. Other Charges . . . . .	85,780
<b>TOTAL . . . . .</b>	<b>5,32,706</b>

Head of Account	Actual Expenditure in 1962-63
<b>Rs.</b>	
<i>C. Abstraction and compilation</i>	
C. 1. Pay of Officers . . . . .	23,343
C. 2. Pay of Establishment . . . . .	2,88,428
C. 3. Allowances, Honoraria etc. . . . .	82,685
C. 4. Other Charges . . . . .	83,544
<b>TOTAL . . . . .</b>	<b>4,78,000</b>
<b>Total expenditure for 1962-63 . . . . .</b>	<b>10,10,706</b>

**TOTAL EXPENDITURE INCURRED ON TABULATION:**

Year	Amount
<b>Rs.</b>	
1960-61 . . . . .	2,00,038
1961-62 . . . . .	24,77,603
1962-63 . . . . .	10,10,706
<b>TOTAL . . . . .</b>	<b>36,88,347</b>

**REGIONAL OFFICES**

200. Of these, a total amount of Rs. 20,91,379.38 nP. were incurred at the six regional offices at

Royapuram, St. Thomas Mount, Cuddalore, Coimbatore, Tiruchirapalli and Tuticorin as detailed below :—

Name of the Regional Tabulation office	Amount
	Rs.
Regional Tabulation Office, Royapuram . . . . .	6,48,549·08
Regional Tabulation Office, St. Thomas Mount . . . . .	1,49,347·85
Regional Tabulation Office, Cuddalore . . . . .	2,26,121·79
Regional Tabulation Office, Coimbatore . . . . .	3,64,907·35
Regional Tabulation Office, Tiruchirapalli . . . . .	4,14,087·45
Regional Tabulation Office, Tuticorin . . . . .	2,88,365·86
TOTAL . . . . .	20,91,379·38

201. The detailed heads of expenditure of each office are furnished in the Appendix to this volume. The expenditure noted above, includes the cost incurred in the Central Tabulation Office at Nungambakkam and on the offices which functioned during 1960-61 with headquarters at Saidapet, Vellore, Madurai and Palayamkottai. The expenditure incurred in these offices of the Deputy Superintendents are detailed below :—

	Rs.
Saidapet Office . . . . .	10,064·18
Vellore Office . . . . .	5,146·91
Madurai Office . . . . .	8,400·66
Palayamkottai Office . . . . .	11,629·30
TOTAL . . . . .	35,241·05

202. The expenditure incurred in the Regional Tabulation offices on account of the cost of steel boxes, telephone charges, hire charges of comptometers and typewriters and the leave salary contribution of the officials taken on deputation incurred under the head "C. Abstraction and Compilation", is shown against the Office of the Superintendent of Census Operations, as the relevant bills were countersigned and passed for payment in the head office.

203. The Central Tabulation Office functioned from November 1960 to May 1962 in the sheds adjacent to the Office of the Superintendent of Census Operations. A total expenditure of Rs. 4,57,073.10 nP. was incurred in this office till the end of May 1962. Housing tabulation alone which took about six months from November 1960 to April 1961 cost us a total amount of Rs. 1,64,697.56 nP.

#### COST OF SPECIAL STUDIES

204. The staff employed for the special studies like Tabulation Officers, Research Assistants and Clerks were not borne on separate establishment and their pay and allowances were not drawn in separate bills. For purposes of drawing their pay, etc., they were treated as part of the general establishment. Contingent charges on special studies were also incurred along with other charges in the head office. In these

circumstances, separate figures for the expenditure incurred on the special studies could not be compiled and presented.

#### MISCELLANEOUS COST

205. The payment of bonus to the Supervisors, Compiler-Checkers and Sorters employed for tabulation work was decided at the Conferences of the Superintendents of Census Operations held at Delhi in August 1960 and at Darjeeling in June 1961. The basis on which the above payment was to be made in this State was discussed at the Conferences of the Deputy Superintendents held in July 1961 at Madras and in October 1961 at Coimbatore. The Deputy Superintendents were authorised to draw the amounts of bonus and debit the expenditure to the head "39—Miscellaneous—Social Service Organisation—C. Abstraction and Compilation—Allowances and Honoraria."

206. The Accountant General, Madras raised an objection whether the Superintendent of Census Operations was empowered to sanction bonus or honoraria to the employees of the Census Department. To this, we replied that the bonus ordered to be paid to the tabulation staff would fall within the category 'Honoraria' which was within the financial powers delegated to the State Superintendents by the Ministry of Home Affairs in their letter No. F. 2/60/59-Pub. I dated December 22, 1959. The further points raised by the Accountant General on this issue were: (1) whether provisions of F.R. 46 (c) and the general principle contained in Government of India decision No. 1 below F.R. 46, were taken into consideration; (2) the payment of honoraria was held to be not in order in the sense that the staff for whom honoraria was paid were considered as forming part of the establishment of the authority who sanctioned the bonus. The above-mentioned questions were answered as follows. We said that in sanctioning honoraria to the tabulation staff, the provisions of F.R. 46 (c) and the general principle contained in Government of India decision No. 1 below F.R. 46 were taken into consideration. To the second question, we replied saying that the regional tabulation offices were distinct and different establishments in independent charge of the Deputy Superintendents of Census Operations.

207. The amount of bonus paid in the different tabulation offices are indicated below :—

	Rs.
1. Central Tabulation Office . . . . .	920
2. Royapuram Office . . . . .	2,030
3. St. Thomas Mount Office . . . . .	1,040
4. Coimbatore Office . . . . .	1,820
5. Cuddalore Office . . . . .	825
6. Tiruchirapalli Office . . . . .	2,740
7. Tuticorin Office . . . . .	2,453
TOTAL EXPENDITURE . . . . .	11,828

**PER CAPITA EXPENDITURE**

208. In some of the previous Censuses, it has been the tradition to compare the cost of one Census with the previous Censuses. In our case, no such comparison will be useful in view of the following reasons. The expenditure on tabulation work not only depends on the number of persons enumerated, but also on

the magnitude of the tabulation plan. As indicated earlier, the tabulation plan this time has been quite comprehensive and the tables prepared are incomparably larger than the tables prepared during the previous Censuses. The total cost incurred on tabulation during the current Census amounts to Rs. 36,88,347 up to the end of March 1963. This works out a *per capita* expenditure of Rs. 10.94 nP.

APPENDIX I

**List of the tracts formed for tabulation**

Name of the District	Tract	Population	Tabulation Office
1	2	3	4
1. Madras	Madras City	1,729,141	Regional Tabulation Office, Royapuram.
	<i>Rural</i>		
2. Chingleput	1. Ponneri Taluk	211,962	} Central Tabulation Office, Nungambakkam, Madras.
	2. Tiruvallur	250,657	
	3. Tiruttani	193,526	
	4. Sriperumbudur	191,448	
	5. Saidapet	215,719	
	6. Chingleput	207,219	
	7. Kancheepuram	207,170	
	8. Madurantakam	263,033	
	<i>Urban</i>		
	1. Sriperumbudur, Chingleput, Kancheepuram and Madurantakam taluks	218,628	
	2. Ponneri, Tiruvallur, Tiruttani and Saidapet taluks	237,050	
	<i>Rural</i>		
3. North Arcot	1. Arkonam Taluk	209,603	} Regional Tabulation Office, Cuddalore.
	2. Walajapet	275,055	
	3. Gudiyatham	300,429	
	4. Tirupattur	312,456	
	5. Vellore	229,959	
	6. Arni	138,488	
	7. Cheyyar	194,470	
	8. Wandiwash	208,751	
	9. Polur	210,756	
	10. Chengam	222,703	
	11. Tiruvannamalai	212,431	
	<i>Urban</i>		
	1. Vellore Town Group	122,761	} Regional Tabulation Office, Royapuram.
	2. Arkonam, Walajapet and Gudiyatham Taluks	215,823	
	3. Tirupattur, Vellore (except Vellore Town group) Arni, Cheyyar, Wandiwash, Polur and Tiruvanna- malai taluks	292, 641	
	<i>Rural</i>		
4. South Arcot	1. Gingee Taluk	254,443	} Regional Tabulation Office, Cuddalore.
	2. Tindivanam	309,191	
	3. Villupuram	302,949	
	4. Tirukoilur	379,302	
	5. Kallakurichi	359,681	
	6. Vriddachalam	331,800	
	7. Cuddalore	370,479	
	8. Chidambaram	347,806	
	<i>Urban</i>		
	1. Tindivanam, Villupuram, Tirukoilur and Chidam- baram taluks	204,288	} Central Tabulation Office, Nungambakkam, Madras.
	2. Vriddachalam, Cuddalore and Kallakurichi taluks	188,034	

## APPENDIX I—contd.

1	2	3	4
	<i>Rural</i>		
5. Salem	1. Hosur Taluk	302,456	} Regional Tabulation Office, Coimbatore.
	2. Krishnagiri	383,470	
	3. Harur	206,528	
	4. Dharmapuri	346,550	
	5. Yercaud	23,753	
	6. Omalur	371,857	
	7. Salem	329,620	
	8. Sankari	217,945	
	9. Tiruchengode	189,804	
	10. Rasipuram	162,311	
	11. Attur	267,493	
	12. Namakkal	384,973	
	<i>Urban</i>		
	1. Salem City	249,145	} Regional Tabulation Office, Royapuram, Madras.
	2. Hosur, Krishnagiri, Harur, Dharmapuri, Omalur and Salem taluks	184,323	
	3. Sankari, Tiruchengode, Attur and Namakkal taluks	183,880	
	<i>Rural</i>		
6. Coimbatore	1. Bhavani Taluk	229,787	} Regional Tabulation Office, Coimbatore.
	2. Gobichettipalayam	349,086	
	3. Erode	408,268	
	4. Dharapuram	299,856	
	5. Palladam	283,186	
	6. Avanashi	228,876	
	7. Pollachi	247,243	
	8. Udumalpet	192,334	
	9. Coimbatore	286,676	
	<i>Urban</i>		
	1. Coimbatore City	286,305	} Regional Tabulation Office, Royapuram, Madras.
	2. Bhavani, Gobichettipalayam and Erode taluks	179,092	
	3. Dharapuram, Palladam and Avanashi taluks	201,193	
	4. Kurichi town group	119,380	
	5. Pollachi, Udumalpet and Coimbatore taluks (except Coimbatore City and Kurichi town group)	246,199	
	<i>Rural</i>		
7. Nilgiris	1. Gudalur Taluk	23,305	} Regional Tabulation Office, Coimbatore.
	2. Ootacamund	106,252	
	3. Coonoor	99,884	
	<i>Urban</i>		
	1. Gudalur, Ootacamund and Coonoor taluks	179,867	Central Tabulation Office, Nungambakkam, Madras.
	<i>Rural</i>		
8. Madurai	1. Dindigal Taluk	491,637	} Regional Tabulation Office, Tiruchirapalli.
	2. Palni	226,873	
	3. Kodaikanal	37,850	
	4. Nilakottai	258,712	
	5. Periyakulam	424,469	
	6. Melur	214,934	
	7. Madurai	179,768	
	8. Tirumangalam	361,239	
	<i>Urban</i>		
	1. Madurai City	424,810	} Regional Tabulation Office, Royapuram, Madras.
	2. Dindigal taluk	110,910	
	3. Palni, Kodaikanal and Nilakottai taluks	107,090	
	4. Periyakulam taluk	229,834	
	5. Melur, Madurai and Tirumangalam taluks (except Madurai City).	143,101	



## APPENDIX 1—contd.

1	2	3	4
	<i>Rural</i>		
9. Tiruchirapalli	1. Perambalur Taluk	270,933	} Regional Tabulation Office, Tiruchirapalli.
	2. Udayarpalayam "	403,979	
	3. Lalgudi "	225,796	
	4. Musiri "	322,129	
	5. Karur "	267,817	
	6. Kulitalai "	419,956	
	7. Tiruchirapalli "	163,859	
	8. Kulathur "	169,300	
	9. Alangudi "	129,197	
	10. Tirumayam "	139,041	
	<i>Urban</i>		
	1. Tiruchirapalli City	249,862	} Regional Tabulation Office, St. Thomas Mt., Madras.
	2. Perambalur, Lalgudi, Udayarpalayam, Musiri and Alangudi	212,828	
	3. Karur, Kulitalai, Tiruchirapalli taluks except Tiruchi Municipality	215,381	
	<i>Rural</i>		
10. Thanjavur	1. Sirkali Taluk	153,876	} Regional Tabulation Office, Tiruchirapalli.
	2. Mayuram "	289,393	
	3. Kumbakonam "	245,087	
	4. Nannilam "	250,995	
	5. Papanasam "	197,410	
	6. Thanjavur "	223,069	
	7. Orthanadu "	187,272	
	8. Mannargudi "	219,426	
	9. Nagapattinam "	187,867	
	10. Tiruthuraipundi "	232,034	
	11. Pattukottai "	252,268	
	12. Arantangi "	145,710	
	<i>Urban</i>		
	1. Thanjavur Municipality	111,099	} Regional Tabulation Office, St. Thomas Mt., Madras.
	2. Sirkali, Mayuram, Nannilam, Mannargudi & Arantangi Taluks	185,250	
	3. Kumbakonam Papanasam Thanjavur (except Thanjavur Municipality) Taluks	185,250	
	4. Orthanadu, Nagapattinam, Tiruthuraipundi & Pattukottai Taluks	179,417	
	<i>Rural</i>		
11. Ramanathapuram	1. Tirupattur Taluk	219,797	} Regional Tabulation Office, Tuticorin.
	2. Sivaganga "	225,585	
	3. Tiruvadanaï "	182,115	
	4. Paramakudi "	176,689	
	5. Ramanathapuram "	135,420	
	6. Mudukulathur "	217,471	
	7. Aruppukottai "	213,329	
	8. Sattur "	252,576	
	9. Srivilliputtur "	199,325	
	<i>Urban</i>		
	1. Tirupattur and Sattur Taluks	194,574	} Regional Tabulation Office, St. Thomas Mt., Madras.
	2. Tiruvadanaï, Sivaganga, Paramakudi, Ramanathapuram and Mudukulathur Taluks	199,125	
	3. Srivilliputtur and Aruppukottai Taluks	205,782	

## APPENDIX I—contd.

1	2	3	4
	<i>Rural</i>		
12. Tirunelveli	1. Sankaranayinar-koil Taluk	263,373	} Regional Tabulation Office Tuticorin.
	2. Kovilpatti	346,470	
	3. Srivaikuntam	176,568	
	4. Tirunelveli	147,967	
	5. Tenkasi	259,105	
	6. Shencottah	45,945	
	7. Ambasamudram	181,514	
	8. Nanguneri	282,800	
	9. Tiruchendur	178,645	
	<i>Urban</i>		
	1. Srivaikuntam (except Tuticorin Town Group) Kovilpatti and Sankaranayinarkoil Taluks	166,261	} Central Tabulation Office, Nungambakkam, Madras.
	2. Tirunelveli Taluk	190,048	
	3. Ambasamudram, Shencottah and Tenkasi Taluks	209,065	
	4. Tiruchendur and Nanguneri Taluks	155,152	
	5. Tuticorin Town Group	127,356	
	<i>Rural</i>		
13. Kanyakumari	1. Vilavancode Taluk	303,843	} Regional Tabulation Office, Tuticorin.
	2. Kalkulam	310,303	
	3. Thovala	62,292	
	4. Agastheeswaram	170,398	
	<i>Urban</i>		
	1. Vilavancode and Kalkulam Taluks	43,872	} Central Tabulation Office, Nungambakkam, Madras.
	2. Agastheeswaram Taluk	106,207	

## APPENDIX II

### List of Tables Prepared in Censuses from 1901 to 1961

#### 1901

1. Area, Houses, Population.
2. Variation in population since 1871.
3. Towns and villages classified by Population.
4. Towns classified by population with variation since 1871.
5. Towns arranged territorially with population by religion.
6. Religion.
7. Age, Sex and civil Condition.
8. Education.
9. Education by selected castes, tribes or races.
10. Languages.
11. Birth Place.
12. Infirmities by age.  
Infirmities by castes, tribes and races.
13. Caste, tribe or nationality—
  - (1) Hindu and Animist.
  - (2) Musalman.
  - (3) Christian.
  - (4) Jain, Buddhist, Jew, Parsi and others.
14. Civil condition by age for selected castes and races.
15. Occupation.
16. Selected castes by traditional and actual occupation.
17. Territorial distribution of Christian population by sect and race.
18. Europeans, Armenians and Eurasians by age.

#### 1911

1. Area, Houses, Population.
2. Variation in population since 1891.
3. Towns and villages classified by population.
4. Towns classified by population with variation since 1871.
5. Towns arranged territorially with population by religion.
6. Religion.
7. Age, Sex and Civil condition.
8. Education by religion and age.
9. Education by caste, tribe or race.
10. Languages.
11. Birth Place.
12. Infirmities by age.
13. Infirmities by selected castes, tribes, races.
14. Caste, tribe, race or nationality.
15. Civil condition by age for selected castes.
16. Occupation.
17. Subsidiary occupation of agriculturists—actual workers only.
18. Statistics of Industries—
  - Ownership.
  - Caste or race of managers.
19. Occupation by selected castes, tribes or races.
20. Territorial distribution of Christian population by sect and race.
21. Europeans, Armenians and Anglo-Indians by age.

#### 1921

1. Area, Houses, Population.
2. Variation in population since 1871.
3. Towns and villages classified by population.
4. Towns classified by population with variation since 1871.

APPENDIX II—*contd.*

5. Towns arranged territorially with population by religion.
6. Religion.
7. Age, Sex and Civil condition.
8. Education.
9. Education by selected castes, tribes or race.
10. Languages.
11. Birth Place.
12. (a) Infirmities by age.  
(b) Infirmities by castes, tribes or races.
13. Caste, tribe or nationality—
  - (1) Hindu and Animist.
  - (2) Musalman.
  - (3) Christian.
  - (4) Jain, Buddhist, Jew, Parsi and others.
14. Civil condition by age for selected castes and races.
15. Subsidiary occupation of agriculturists.
16. Occupation by castes, tribes and races.
17. Christian population by sect and race.
18. Europeans by age.
19. Subsidiary occupation of actual workers who returned a non-agricultural occupation as their principal occupation.
20. Industrial statistics.

**1931**

1. Area, Houses and Population.
2. Variation in population since 1891.
3. Cities, towns and villages classified by population.
4. Cities, towns classified by population with variation for 50 years.
5. Cities, towns arranged territorially with population by religion.
6. Birth Place.
7. Age, Sex, and Civil condition.
8. Civil condition by age for selected communities.
9. Infirmities by age.
10. Occupation or means of livelihood.
11. Literacy by religion and age.
12. Literacy by selected communities.
13. Languages—
  - Mother tongue.
  - Subsidiary languages.
14. Religion.—Main religions—
  - Details for Hindu and Christian.
15. Race, tribe or caste—
  - Communities in alphabetical order and territorial distribution of principal communities.
16. Selected tribes—variation.
17. Europeans and allied races and Anglo-Indians by race with age.

**1941**

1. Area, Houses and Population.
2. Variation in population during 50 years.
3. Towns and villages classified by population.
4. Cities classified by population with variations since 1891.
5. Towns arranged territorially with population by communities.
6. Community.
7. Variation in population of selected tribes.

**1951**

1. Area, Houses and Population.
2. Variation in Population during fifty years.
3. Towns and villages classified by Population.
4. Towns classified by population with variations since 1901.
5. Towns arranged territorially with population by livelihood classes.

APPENDIX II—*contd.*

6. B-I Livelihood classes and sub-classes.
7. B-II Secondary means of livelihood.
8. B-III Employers, Employees and Independent workers in Industries and Services by Divisions and sub-Divisions.
9. Household (size and composition).
10. Livelihood Classes by age-groups.
11. Age and Civil condition.
12. Age and Literacy.
13. Single Year Age Returns.
14. Mother tongue.
15. Bilingualism.
16. Religion.
17. Scheduled Castes and Scheduled Tribes.
18. Migrants.
19. Displaced persons by District of Origin and date of arrival in India.
20. Non-Indian Nationals.
21. Livelihood Classes by Educational Standards.

## 1961

- A— I: Area, Houses and Population.  
 A— II: Variation in Population during sixty years.  
 A— III: Villages classified by population.  
 A— IV: Towns (and town-groups) classified by population in 1961 with variation since 1901.

**Primary Census Abstract**

- B— I: Workers and Non-workers classified by sex and broad age-groups.  
 B— II: Workers and Non-workers in cities, town-groups and towns arranged territorially classified by sex and broad age-groups.  
 B—III: Part A—Industrial Classification of workers and non-workers by educational levels in urban areas only.  
 B—III: Part B—Industrial Classification of workers and non-workers by educational levels in rural areas only.  
 B—IV: Part A—Industrial Classification by sex and class of worker of persons at work at household industry.  
 B—IV: Part B—Industrial classification by sex and class of worker of persons at work in non-household industry, trade, business, profession or service.  
 B—IV: Part C—Industrial classification by sex and divisions, major groups and minor groups of persons at work other than cultivation.  
 B—V: Occupational classification by sex of persons at work other than cultivation.  
 B—VI: Occupational divisions of persons at work other than cultivation classified by sex, broad age-groups and educational levels in urban areas only.  
 B—VII: Part A—Persons working principally (i) as cultivators (ii) as agricultural labourers or (iii) at household industry classified by sex and by secondary work (i) at household industry (ii) as cultivator or (iii) as agricultural labourer.  
 B—VII: Part B—Industrial classification by sex of persons working in non-household industry, trade, business, profession or service who are also engaged in household industry.  
 B—VIII: Part A—Persons unemployed aged 15 and above by sex, broad age-groups and educational levels in urban areas only.  
 B—VIII: Part B—Persons unemployed aged 15 and above by sex and educational levels in rural areas only.  
 B— IX : Persons not at work classified by sex, broad age-groups and type of activity.  
 B—X: Sample Households (i) engaged neither in cultivation nor household industry (ii) engaged either in cultivation or household industry but not in both and (iii) engaged both in cultivation and household industry for all areas.  
 B—XI: Sample households engaged in cultivation classified by interest in land and size of land cultivated in rural and urban areas separately.  
 B—XII: Sample households engaged in cultivation classified by size of land cultivated and number of family workers and hired workers in rural and urban areas separately.  
 B—XIII: Sample households engaged both in cultivation and household industry showing size of land cultivated classified by principal household industry in rural and urban areas separately.  
 B—XIV: Sample households engaged only in household industry classified by principal household industry in all areas.  
 B—XV: Sample households engaged both in cultivation and household industry classified by size of land in rural and urban areas separately.  
 B—XVI: Sample principal household industry classified by period of working and total number of workers engaged in household industry in all areas.
- C— I: Size and composition of sample households.  
 C— II: Age and Marital Status.  
 C—III: Part A—Age, Sex and Education in all areas.  
 C—III: Part B—Age, Sex and Education in urban areas only.  
 C—III: Part C—Age, Sex and Education in rural areas only.  
 C—IV: Single year age returns.  
 C—V: Mother tongue.

APPENDIX II—*concl*d

C—VI : Bilingualism.

C—VII : Religion.

C—VIII: A & B Scheduled Castes and Scheduled Tribes.

D— I: Non-Indian Nationals.

D— II: Place of Birth.

D—III: Migrants classified by place of birth and duration of residence in place of enumeration.

D—III: A—Migrants from other States and outside India (less than 5 years duration) classified by age-groups.

D—IV: Migrants to cities classified by sex, broad age-groups, educational levels and in case of workers also by occupational divisions and groups.

D— V: Cities showing population born locally, migrants from rural areas and migrants from other towns and cities.

D—VI: Distribution of industrial categories of workers and non-workers by place of birth.

E— I: Census houses and the uses to which they are put.

E— II: Tenure status of Sample Census Houses used as dwelling.

E—III: Census houses used as factories and workshops classified by industry power and no power used and size of employment.

E—IV: Distribution of sample households living in Census houses used wholly or partly as dwelling by predominant material of wall and predominant material of roof.

E— V: Sample households classified by number of members and by number of rooms occupied.

SCT. I Part—A—Industrial classification of persons at work and non-workers by sex for Scheduled Castes.

SCT. I Part—B—Industrial classification of persons at work and non-workers by sex for Scheduled Tribes.

SCT. II Part—A—Age and marital status for Scheduled Castes.

SCT. II Part—B—Age and marital status for Scheduled Tribes.

SCT. III Part—A—(i)—Education in urban areas only for Scheduled Castes.

SCT. III Part—A—(ii)—Education in urban areas only for Scheduled Tribes.

SCT. III Part—B—(i)—Education in rural areas only for Scheduled Castes.

SCT. III Part—B—(ii)—Education in rural areas only for Scheduled Tribes.

SCT. IV Part—A—Religion for Scheduled Castes.

SCT. IV Part—B—Religion for Scheduled Tribes.

SCT. V Part—A—Households engaged in cultivation classified by interest in land and size of land cultivated in rural areas only for Scheduled Castes.

SCT. V Part—B—Sample households engaged in cultivation classified by interest in land and size of land cultivated in rural areas only for Scheduled Tribes.

SC. I Persons not at work classified by sex, type of activity and educational levels for Scheduled Castes.

ST. I Mother tongue and Bilingualism for Scheduled Tribes.

ST. II Persons not at work classified by sex and type of activity for Scheduled Tribes.

**APPENDIX III**  
**Correlation of Sorter's Tickets, Compiler Posting Statements and Tables**

Sorter's Ticket No.	C.P.S. No.	Table No.
S.T. 5a (Urban only)	C.P.S. 2 & 3.	B-III-A ; C-III-A.
S.T. 5b (Rural only)	C.P.S. 4 to 6.	B-I ; B-III-B & C-III-B.
S.T. 6 (Urban only)	C.P.S. 7.	B-VI (Urban).
S.T. 7	C.P.S. 8.	C-II.
S.T. 8	C.P.S. 9.	C-IV.
S.T. 9	C.P.S. 10 to 15.	B-IV (Non-Household Industry).
S.T. 10	C.P.S. 16.	B-IV (Household Industry).
S.T. 11	C.P.S. 17.	B-VII-A.
S.T. 12	C.P.S. 18.	B-VII-A.
S.T. 13	C.P.S. 19 to 24.	B-VII-B.
S.T. 14	C.P.S. 25.	B-V.
S.T. 15	C.P.S. 26.	B-IX.
S.T. 16a (Urban only)	C.P.S. 27 & 28.	B-VIII-A.
S.T. 16b (Rural only)	C.P.S. 29.	B-VIII-B.
S.T. 17	C.P.S. 30.	C-V & C-VI.
S.T. 18	C.P.S. 31.	D-II & D-V.
S.T. 19	C.P.S. 32.	D-III & D-V.
S.T. 19a	C.P.S. 32-A.	D-III-A.
S.T. 20 (Cities only)	C.P.S. 33 & 34.	D-IV.
S.T. 21	C.P.S. 35.	D-I.
S.T. 22	C.P.S. 36 & 37.	C-VII & C-VIII.
S.T. 23	C.P.S. 38-A & 39-A.	SCT-I & SCT-IV.
S.T. 23	C.P.S. 38-B and 39-B.	SCT-I & SCT-IV.
S.T. 24	C.P.S. 40-A.	SCT-II.
	40-B.	SCT-II.
S.T. 25a (Urban only)	C.P.S. 41-A.	SCT-III-A & C-VIII-A.
	41-B.	SCT-III-A & C-VIII-B.
S.T. 25b (Rural only)	C.P.S. 42-A.	SCT-III-B & C-VIII-A.
	42-B.	SCT-III-B & C-VIII-B.
S.T. 26	C.P.S. 43.	SCT-I.
S.T. 27	C.P.S. 44.	SC-I.
S.T. 28	C.P.S. 45.	ST-I.
S.T. 29	C.P.S. 46.	ST-II.

APPENDIX IV

Statement Showing the Number and Cost of Furniture Articles Purchased for Regional Tabulation Offices and Amounts Realised by their Disposal

Sl. No.	Name of Regional Tabulation Office	Pigeon-holes				Boxes			
		Number	Cost per pigeon-hole	Total	Amount realised by disposal	Number	Cost per box	Total cost	Amount realised by disposal
1	2	3	4	5	6	7	8	9	10
1.	Royapuram . . . . .	200	Rs. p. 15.00	Rs. p. 3,000.00	Rs. p. 231.50	450	Rs. p. 10.00	Rs. p. 4,500.00	Transferred to the Main Office.
2.	Cuddalore . . . . .	158	15.00	2,370.00	237.00	475	Do.	4,750.00	Transferred to the Regional Tabulation Office, Royapuram.
3.	St. Thomas Mount . . . . .	100	15.00	1,500.00	*	225	Do.	2,250.00	Do.
4.	Coimbatore . . . . .	200	21.46	4,292.00	330.80	550	Do.	5,500.00	Do.
5.	Tiruchirapalli . . . . .	200	15.00	3,000.00	392.00	650	Do.	6,500.00	Do.
6.	Tuticorin . . . . .	200	15.00	3,000.00	374.00	400	Do.	4,000.00	Do.
7.	Central Tabulation Office, Nungambakkam . . . . .	150	15.00	2,250.00	*2,677.25	285	Do.	2,850.00	Transferred to the Main Office.
TOTAL . . . . .		1,208	..	19,412.00	4,242.55	3,035	10.00	30,350.00	..

APPENDIX IV—contd.

Sl. No.	Name of Regional Tabulation Office	Racks				Tables with Drawer			
		Number	Cost per rack	Total cost	Amount realised by disposal	Number	Cost per table	Total cost	Amount realised by disposal
1	2	11	12	13	14	15	16	17	18
1.	Royapuram . . . . .	10	Rs. p. 138.60	Rs. p. 1,386.00	Rs. p. Transferred to the Main Office.	7 (C.W.) 4 (T.W.)	Rs. p. 25.00 75.00	Rs. p. 175.00 300.00	Rs. p. Transferred to the Main Office.
2.	Cuddalore . . . . .	22	68.18	1,500.00	Transferred to the Regional Tabulation Office, Royapuram.	6 (C.W.) 2 (T.W.)	55.00 75.00	330.00 150.00	Do.
3.	St. Thomas Mount . . . . .	6	206.00	1,236.00	Do.	3 (T.W.) 5 (C.W.)	75.00 16.75	225.00 83.75	Do.
4.	Coimbatore . . . . .	20	47.70 for 10 racks 68.90 for 10 racks.	1,166.00	Do.	4 (T.W.) 6 (C.W.)	117.88 52.47	471.54 314.82	**1,931.61
5.	Tiruchirapalli . . . . .	†	..	1,320.00	Do.	2 15	80.00 60.00	160.00 900.00	125.00 (5 disposed)
6.	Tuticorin . . . . .	†	..	737.00	Do.	2 13	80.00 60.00	160.00 780.00	‡‡250.00
7.	Central Tabulation Office Nungambakkam . . . . .	10	297.00	2,970.00	Do.	10	75.00	750.00	Transferred to the Main Office.
TOTAL . . . . .		68	..	10,315.00	..	79	..	4,800.11	2,306.61



APPENDIX IV—*contd.*

Sl. No.	Name of Regional Tabulation Office	Tables without Drawers				Stools			
		Number	Cost per table	Total cost	Amount realised by disposal	Number	Cost per stool	Total cost	Amount realised by disposal
1	2	19	20	21	22	23	24	25	26
			Rs. p.	Rs. p.	Rs. p.		Rs. p.	Rs. p.	Rs. p.
1.	Royapuram . . .	55	15.00	825.00	210.00	250	4.50	1,125.00	189.50 (70 disposed)
2.	Cuddalore . . .	67	15.00	1,005.00	256.50	215	4.50	967.50	328.60 (155 disposed)
3.	St. Thomas Mount . . .	30	15.00	450.00	*	120	4.50	540.00	*
4.	Coimbatore . . .	70	22.26	1,558.20	@	250	5.04	1,260.00	@
5.	Tiruchirapalli . . .	81	15.00	1,215.00	472.00 (59 disposed)	200 20	4.50 5.00	900.00 100.00	384.00 (192 disposed)
6.	Tuticorin . . .	70	15.00	1,050.00	††952.50	200	4.50	900.00	..
7.	Central Tabulation Office, Nungambakkam . . .	196	15.00	2,940.00	*	300	4.50	1,350.00	*
TOTAL . . .		569	15.00	6,393.20	1,891.00	1,555	..	7,142.50	902.10

APPENDIX IV—*concl.*

Sl. No.	Name of Regional Tabulation Office	Folding Chairs				Rattan Chairs			
		Number	Cost per folding chair	Total cost	Amount realised by disposal	Number	Cost per chair	Total cost	Amount realised by disposal
1	2	27	28	29	30	31	32	33	34
			Rs. p.	Rs. p.	Rs. p.		Rs. p.	Rs. p.	Rs. p.
1.	Royapuram . . .	30	6.50	195.00	Transferred to the Main Office.	9	22.00	198.00	Transferred to the Main Office.
2.	Cuddalore . . .	35	6.50	227.50	77.50	7	23.00	161.00	Do.
3.	St. Thomas Mount . . .	..	..	..	..	9	23.00	207.00	Do.
4.	Coimbatore . . .	..	..	..	..	13	21.50	279.50	Do.
5.	Tiruchirapalli . . .	65 20	6.50 7.00	422.50 140.00	234.90 (58 disposed)	20	25.00	500.00	70.50 (6 disposed)
6.	Tuticorin . . .	60	6.50	390.00	..	20	25.00	500.00	..
7.	Central Tabulation Office, Nungambakkam . . .	60	6.50	390.00	..	20	23.00	460.00	Transferred to the Main Office.
TOTAL . . .		270	..	1,765.00	312.40	98	..	2,305.00	70.50

\*Tables without drawers . . . . . 177  
 Stools . . . . . 574  
 Folding Chairs . . . . . 59 } Rs. 2,677.25  
 Pigeon-holes . . . . . 270  
 †Tables with drawer . . . . . 2  
 ††Tables without drawer . . . . . 1 } Rs. 250.  
 Chairs with Arms . . . . . 4

†Reapers fixed to the building to serve as racks.  
 @Transferred to the Collector, Coimbatore, Cost adjusted by book debit (33-1/3).  
 ††Tables . . . . . 45 }  
 Stools . . . . . 155 } Rs. 952.50.  
 Folding Chairs 24 }

**APPENDIX V**  
**Statement Showing the Stationery Articles Supplied to the Tabulation Offices**

Sl. No.	Description of stationery articles	Quantity supplied to							Grand Total
		Regional Tabulation Office, Tiruchirappalli	Regional Tabulation Office, Cuddalore	Regional Tabulation Office, Tuticorin	Regional Tabulation Office, Coimbatore	Regional Tabulation Office, St. Thomas Mount	Regional Tabulation Office, Royapuram	Central Tabulation Office, Nungambakkam	
1	2	3	4	5	6	7	8	9	10
1.	Typewriting Paper F/C . . .	30	30	30	34	30	30	..	184 Rms.
2.	Blotting Paper—White—Demy	325	1000	325	325	325	1075	200 sheets	3575 sheets
3.	White Paper . . . . .	23	19	11	15	10	56	..	134 Rms.
4.	White Ruled Paper . . . . .	250	4	250	250	250	13	1 Rm.	20 Rms.
5.	Unbleached Paper . . . . .	24	10	3	12	40	16	..	105 Rms.
6.	Brown Wrapper . . . . .	17	8	7	5	26	20	..	83 Rms.
7.	Duplicating Paper . . . . .	57	84	49	49	49	226	..	514 Rms.
8.	Typewriting Carbon . . . . .	800	600	600	600	600	1900	600 sheets	11 Rms. 200 sheets
9.	Typewriting ribbon . . . . .	21	19	12	14	12	25	6	109 Nos.
10.	Stencil Papers . . . . .	150	175	100	100	100	150	236 sheets	1011 sheets
11.	Duplicating Ink . . . . .	25	25	25	25	25	35	6	166 Tubes
12.	Ink Powder (Blue) . . . . .	90	106	90	90	130	106	..	612 Pkts.
13.	Ink Powder (Red) . . . . .	35	20	20	20	20	20	..	135 Pkts.
14.	Pen holders . . . . .	75	75	75	75	75	85	48	508
15.	Steel Pen Nibs . . . . .	12	17	12	12	12	19	6 Doz. 25 Nos.	84 Gross, 6 Doz., 25 Nos.
16.	Ink bottle . . . . .	90	90	90	90	90	90	..	540 Nos.
17.	Black lead pencils . . . . .	105	102	102	102	102	198	..	711
18.	Red & Blue Pencils . . . . .	2	2	2	2	2	2	..	12
19.	Shorthand pencils . . . . .	9	9	9	9	9	9	..	54
20.	Pencil carbon sheets . . . . .	..	350	..	..	..	600	..	950 sheets
21.	Gem Clips . . . . .	1	8	1	1	1	5	..	17 Pkts.
22.	Tags . . . . .	10200	12000	10000	10100	10000	18300	700	71300
23.	Pins . . . . .	36	50	36	42	36	89	24 Pkts.	313 Pkts.
24.	Ink & Pencil Erasers . . . . .	43	65	40	40	62	107	..	357
25.	Typewriter Erasers . . . . .	3	3	3	3	3	6	..	21
26.	Covers—Long—Broad & Medium . . . . .	4000	5500	4000	4000	4000	7300	..	28800
27.	Shorthand note books . . . . .	6	16	6	6	6	20	12	72
28.	Twisted thread . . . . .	40	995	15	40	285	1372	..	2747
29.	Flat File pads . . . . .	25	60	25	25	100	160	25	420
30.	Country twine & Hemp . . . . .	84	140	119	84	84	194	..	705 Nos.
31.	Ink Violet for ink pads . . . . .	7	12	7	7	7	12	..	52 bottles
32.	Sealing Wax . . . . .	2	1	1	1	1	1	..	7 Boxes
33.	Correcting Fluid . . . . .	2	2	2	2	2	2	..	12 bottles
34.	Ink stand wooden . . . . .	12	12	12	12	12	40	..	100 Nos.
35.	Typewriting Brush . . . . .	4	4	4	4	4	4	..	24 Nos.
36.	Rulers wooden . . . . .	4	4	4	4	4	6	..	26
37.	Calling Bell . . . . .	1	2	1	1	1	3	..	9
38.	Ink black for Thumb impression	2	2	2	2	2	2	..	12
39.	Slabs tin mounting . . . . .	1	1	1	1	2	2	..	8
40.	Gum bottle with brushes . . . . .	2	2	2	2	2	2	..	12
41.	Officer's paste . . . . .	2	2	2	2	2	3	..	13 Bottles
42.	Paper Weights (Glass) . . . . .	6	6	6	6	6	6	..	36
43.	Uninked pad . . . . .	3	3	3	3	3	3	..	18

## APPENDIX VI

### Sorter's Tickets

#### *Distribution of Forms to Regional Tabulation Offices*

Sorter's Tickets	Central Tabulation Office Nungambakkam	Royapuram	St. Thomas Mount	Cuddalore	Tiruchirapalli	Coimbatore	Tuticorin
1	6,000	11,800	7,200	6,000	7,000	7,000	6,500
2	6,000	9,500	6,000	6,750	5,750	5,750	6,250
3	7,000	12,000	10,600	6,000	7,000	7,000	5,000
4	7,000	38,000	14,000	..	..	..	..
5	2,000	1,500	1,000	1,000	1,000	2,000	1,000
6	2,500	1,800	500	..	..	..	..
7	1,500	2,500	3,100	1,300	2,000	1,600	1,500
8	1,500	2,500	3,100	1,300	2,000	1,600	1,500
9	1,000	1,200	500	900	1,500	1,000	1,000
10	1,000	1,200	500	150	1,000	1,000	400
11	1,000	600	500	200	1,000	1,000	750
12	1,000	750	500	150	1,000	1,000	400
13	500	400	250	350	300	300	750
14	1,000	1,000	1,000	1,000	1,000	1,000	1,000
15	500	500	500	500	500	500	500
16-a	100	200	250	..	..	..	..
16-b	100	..	..	150	200	175	150
17	2,000	2,200	2,500	2,000	2,500	2,000	2,500
18	2,000	3,000	1,500	1,500	2,500	2,000	2,000
19-a	2,000	2,000	1,500	1,500	2,000	2,000	2,000
19-b	2,000	2,000	1,500	1,500	2,000	2,000	2,000
20	1,000	1,200	800	..	..	..	..
21	1,500	2,000	2,500	1,400	2,200	1,700	1,600
22	1,500	1,500	1,500	1,500	1,500	1,500	1,500
23	2,000	2,000	2,000	2,000	2,000	2,000	2,000
24	5,000	5,000	4,000	3,000	4,000	3,500	3,500
25-a	1,500	4,000	5,000	..	..	..	..
25-b	1,500	..	..	2,500	2,000	3,000	3,000
26	1,500	1,500	1,000	1,000	1,500	1,200	1,200
27	150	200	250	150	200	200	150
28	1,300	2,000	2,500	1,400	2,200	1,700	1,600
29	500	550	700	400	600	500	450
P. C. A.	..	5,775	..	1,000	2,000	..	1,000

APPENDIX VI—*contd*  
**Compiler Posting Statements**

*Distribution of Forms to Regional Tabulation Offices*

C.P.S.	Central Tabulation Office, Nungambakkam	Royapuram	St. Thomas Mount	Cuddalore	Tiruchirapalli	Coimbatore	Tuticorin
1 U . . . . .	300	600	..	300	300	300	300
2 U . . . . .	300	600	300	300	300	300	300
3 U . . . . .	50	100	50	50	50	50	50
4 R . . . . .	100	..	..	500	700	850	500
5 R . . . . .	500	500	500	500	500	750	500
6 R . . . . .	100	100	100	100	100	160	250
7 U . . . . .	150	250	250	300	300	300	300
8 . . . . .	100	100	100	100	100	170	150
9 . . . . .	100	100	100	100	100	162	175
10 . . . . .	100	100	100	100	100	150	100
11 . . . . .	100	100	100	100	100	146	100
12 . . . . .	50	200	200	100	100	120	100
13 . . . . .	100	100	100	100	100	150	100
14 . . . . .	100	100	100	100	100	149	100
15 . . . . .	100	100	100	100	100	150	100
16 . . . . .	50	200	150	100	200	250	100
17 . . . . .	50	200	100	250	..	50	250
18 . . . . .	1,000	1,000	1,000	1,000	1,000	1,000	1,000
19 . . . . .	75	100	50	100	100	192	100
20 . . . . .	100	200	200	150	250	244	150
21 . . . . .	500	500	500	500	500	500	500
22 . . . . .	250	250	250	250	250	250	250
23 . . . . .	75	100	50	100	100	136	100
24 . . . . .	75	150	150	100	150	144	100
25 . . . . .	350	500	250	500	500	546	500
26 . . . . .	50	1,000	200	750	1,000	1,000	750
27 U . . . . .	75	100	50	100	100	100	100
28 U . . . . .	750	1,500	3,000	..	..	..	..
29 R . . . . .	20	200	100	200	200	450	200
30 . . . . .	150	200	100	200	200	250	200
31 . . . . .	175	200	150	200	200	300	200
32-a . . . . .	500	700	200	600	700	790	600
32-b . . . . .	250	350	150	300	350	600	300
33 U . . . . .	2,000	2,000	1,500	..	..	..	..
34 U . . . . .	500	750	250	..	..	..	..
35 . . . . .	300	400	200	250	300	438	300
36 . . . . .	50	400	300	300	500	500	300
37 . . . . .	500	1,000	500	750	1,200	1,200	750
38-a . . . . .	2,000	2,500	1,500	1,500	2,084	2,000	2,000
38-b . . . . .	1,000	1,000	750	750	1,200	1,000	1,000
39-a . . . . .	500	750	500	400	650	500	500
40-a . . . . .	2,000	2,000	1,500	1,500	1,750	1,500	1,500
40-b . . . . .	2,000	2,000	1,500	1,500	2,000	2,000	2,000
41-a . . . . .	500	1,500	1,000	..	..	..	..
41-b . . . . .	1,000	1,000	1,000	..	..	..	..
42-a . . . . .	750	..	..	500	1,000	750	750
42-b . . . . .	250	300	150	250	450	250	250
43 . . . . .	750	1,200	300	300	750	750	750
44 . . . . .	250	300	150	250	300	300	300
45 . . . . .	300	400	150	350	460	400	350
46 . . . . .	125	150	75	150	176	150	450

APPENDIX VII

**Statement of Expenditure incurred in each of the Regional Tabulation Offices**

Head of Account	R. T. O. Royapuram	R. T. O. St.Thomas Mount	R. T. O. Cuddalore	R. T. O. Coimbatore	R. T. O. Tiruchira- palli	R. T. O. Tuticorin	C. T. O. Nungam- bakkam	Total
1	2	3	4	5	6	7	8	9
<b>C. ABSTRACTION AND COMPILATION :</b>								
C. 1. Pay of Officers .	16,658.10	7,853.23	4,461.36	10,166.34	9,083.86	5,500.00	8,937.09	62,659.98
C. 2. Pay of Establish- ment .	5,08,762.04	1,21,795.12	1,95,924.80	2,93,531.60	3,33,634.67	2,36,310.48	3,99,158.42	20,89,117.13
C. 3. Allowances, Hono- raria etc. .	52,172.30	5,878.62	7,866.48	21,539.87	32,771.57	19,787.31	24,294.12	1,64,310.27
(a) Dearness Allowance	18,223.66	1,599.34	3,888.19	4,770.75	7,582.54	3,010.14	..	..
(b) Travelling Allowance	10,010.82	2,288.71	3,050.53	15,372.58	19,818.44	16,119.70	..	..
(c) House Rent and other allowances .	23,937.82	1,990.57	927.76	1,396.54	5,370.59	657.47	..	..
C. 4. Other Charges .	70,956.64	13,820.88	17,869.15	39,669.54	38,597.35	26,768.07	24,683.47	2,32,365.10
<b>GRAND TOTAL:</b>	<b>6,48,549.08</b>	<b>1,49,347.85</b>	<b>2,26,121.79</b>	<b>3,64,907.35</b>	<b>4,14,087.45</b>	<b>2,88,365.86</b>	<b>4,57,073.10</b>	<b>25,48,452.48</b>

The figures shown in this statement are those reported by the concerned Deputy Superintendents of Census Operations and exclude the expenditure incurred in the Office of the Superintendent of Census Operations, Madras under the head "C. Abstraction and Compilation".

APPENDIX VII—Contd.

**Details of C. 4. other Charges incurred in the Office of the Deputy Superintendent of Census Operations**

Details	1960-61				Total	1961-62	Grand Total
	Saidapet	Vellore	Madurai	Palayam- kottai		Vel- lore	
1. Purchase of furniture including pigeon-holes, boxes, record racks etc.	2,363.80	..	..	2,500.00	4,863.80	..	4,863.80
2. Railway freight, transport and other conveyance charges for carrying Census Papers from Districts and Sub-Divisions.	..	97.05	..	279.12	376.17	..	376.17
3. House Rent . . . . .	900.00	..	..	2,400.00	3,300.00	498.39	3,798.39
4. Office expenses and miscellaneous inclu- ding the cost of postages, telegrams, offices, safe, locks and keys, petty con- veyance charges, stationery and other maintenance charges . . . . .	170.45	475.79	43.24	..	689.48	..	689.48
5. Pay of menials . . . . .	176.12	173.87	208.56	..	558.55	..	558.55
<b>TOTAL . . . . .</b>	<b>3,610.37</b>	<b>746.71</b>	<b>251.80</b>	<b>5,179.12</b>	<b>9,788.00</b>	<b>498.39</b>	<b>10,286.39</b>

## APPENDIX VII—Contd.

## Details of C. 4. Other Charges incurred in Regional Tabulation Offices, 1960-61

Details	C.T.O. Madras	R.T.O. Cuddalore	R.T.O. Coimbatore	R.T.O. Tiruchirappalli	Total
1. Purchase of furniture including pigeon-holes, boxes, record racks, etc.	2,431.08	2,440.88	4,979.19	5,699.10	15,550.25
2. Electric, Hot and Cold weather charges including the cost of arrangement of fans and lights	456.87	..	..	14.96	471.83
3. Railway freight, transport and other conveyance charges for carrying Census papers from Districts and Sub-Divisions	..	..	..	82.76	82.76
4. Repair and Hire-charges of furniture	1,780.33	..	..	..	1,780.33
5. Hire-charges of Typewriters	..	..	70.00	..	70.00
6. House Rent	..	..	4,900.00	641.66	5,541.66
7. Office expenses and miscellaneous including the cost of postages, telegrams, office safe, locks and keys, petty conveyance charges, stationery, and other maintenance charges	236.42	..	262.53	367.09	866.04
8. Cost of steel boxes	4,120.00	..	..	..	4,120.00
9. Pay of menials	182.28	..	300.48	224.00	706.76
10. Other items	1,760.15	4,850.00	497.89	40.00	7,148.04
TOTAL	10,967.13	7,290.88	11,010.09	7,069.57	36,337.67

## APPENDIX VII—Concl'd.

## Details of C. 4. Other Charges incurred in Regional Tabulation Offices, 1961-62

Details	Central Tabulation Office Nungam- bakkam, Madras	Regional Tabulation Office Royam- puram	R.T.O. St. Thomas Mount	R.T.O. Cudda- lore	R.T.O. Tiruchirappalli	R.T.O. Coim- batore	R.T.O. Tuti- corin	Expendi- ture in- curred in the Office of S.C.O. Madras	Total
1. Purchase of furniture including pigeon-holes, boxes, record racks, etc.	8,211.44	5,491.05	4,051.76	5,392.78	3,965.96	6,335.15	5,799.67	293.00	39,540.81
2. Purchase of stationery including Rubber bands, gunny thread, etc.	..	..	75.87	..	..	..	..	8,521.81	8,597.68
3. Electric, Hot and Cold weather charges including the cost of arrangement of fans and lights	2,244.08	598.11	1,218.86	134.06	..	598.25	674.44	..	5,467.80
4. Railway freight, transport and other conveyance charges for carrying census papers from districts and sub-division	..	..	22.26	..	680.00	960.00	1,461.53	..	3,123.79
5. Purchase of duplicating machines etc.	..	..	..	..	..	..	..	..	..
6. Repair and hire charges of furniture	357.60	..	..	..	..	..	..	..	357.60
7. Hire charges of comptometers	..	..	..	..	..	..	..	..	..
8. Telephone charges	17.80	59.27	..	..	..	..	..	3,585.53	3,662.60
9. Hire charges of typewriters	..	..	..	..	..	60.00	..	30.00	90.00
10. House Rents	..	18,994.69	3,135.48	..	4,429.00	8,150.00	6,600.00	..	41,309.17
11. Office expenses and miscellaneous including the cost of postages, telegrams, office, safe, locks and keys, petty conveyance charges, stationery and other maintenance charges.	1,393.13	1,042.70	1,574.51	1,881.28	1,231.95	2,529.48	2,701.66	42.00	12,396.71
12. Reimbursement to State Governments, if any	..	..	..	..	..	..	..	..	..
13. Cost of steel boxes	..	..	..	..	..	..	..	20,655.00	20,655.00
14. Hire-charges of shed	..	..	..	..	..	..	..	8,000.00	8,000.00
15. Pay of menials	1,343.33	2,040.01	941.34	1,457.60	1,363.87	1,160.32	2,888.79	..	11,195.26
16. Other items	2,111.64	3,490.13	2,937.48	8,464.46	9,834.68	1,202.41	8,506.39	..	36,547.19
TOTAL	15,679.02	31,715.96	13,957.56	17,330.18	21,505.46	20,995.61	28,632.48	41,127.34	1,90,943.61

Total Expenditure Rs. 1,90,943.61  
Credits made (—) 592.27  
Net Amount Rs. 1,90,351.34

**APPENDIX VIII**  
**Details of Total Expenditure up to March, 1963**

Head of Account	Actual Expenditure incurred in					Total	
	1958-59	1959-60	1960-61	1961-62	1962-63		
1	2	3	4	5	6	7	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
<b>A. SUPERINTENDENCE :</b>							
A. 1. Pay of Officers . . . . .	..	19,055	27,231	31,575	41,376	1,19,237	
A. 2. Pay of Establishments . . . . .	..	20,513	69,973	2,59,595	2,98,474	6,48,556	
A. 3. Allowances, Honoraria etc. . . . .	..	21,865	38,117	82,215	1,07,075	2,49,272	
A. 4. Other Charges . . . . .	..	22,407	1,10,196	1,18,359	85,780	3,36,742	
<b>TOTAL A. SUPERINTENDENCE</b>	..	83,840	2,45,517	4,91,744	5,32,706	13,53,807	
<b>B. ENUMERATION :</b>							
B. 1. Pay of Establishments . . . . .	..	..	1,59,448	48,334	..	2,07,782	
B. 2. Allowances, Honoraria etc. . . . .	..	1,310	73,288	1,09,951	11,299	1,95,848	
B. 3. Honoraria to Enumeration Staff . . . . .	..	..	5,77,876	6,15,634	..	11,93,510	
B. 4. Other Charges . . . . .	..	..	14,556	36,393	2,953	53,902	
National Register of Citizens . . . . .	165	12	..	..	..	177	
<b>TOTAL B. ENUMERATION</b>	165	1,322	8,25,168	8,10,312	14,252	16,51,219	
<b>C. ABSTRACTION AND COMPILATION :</b>							
C. 1. Pay of Officers . . . . .	..	5,619	18,855	53,351	23,343	1,01,168	
C. 2. Pay of Establishments . . . . .	..	49,792	1,18,501	16,63,647	2,88,428	21,20,368	
C. 3. Allowances, Honoraria etc. . . . .	..	14,091	16,969	78,009	82,685	1,91,754	
C. 4. Other Charges . . . . .	..	12,973	45,713	1,90,850	83,544	3,33,080	
<b>TOTAL C. ABSTRACTION AND COMPILATION</b>	..	82,475	2,00,038	19,85,857	4,78,000	27,46,370	
<b>D. PRINTING AND STATIONERY</b> . . . . .	..	1,133	53,914	67,435	..	1,22,482	
<b>E. MISCELLANEOUS STAFF</b> . . . . .	..	..	48,336	11,994	189	60,519	
<b>GRAND TOTAL</b>	..	82,640	86,295	13,72,973	33,67,342	10,25,147	59,34,397

APPENDIX IX .

List of Important Files Pertaining To Tabulation

Serial Number	Current Number	Subject
ESTABLISHMENT		
1	945 A/59, Volume II	Establishment—Central Tabulation Office, Madras—Selection and appointment of Sorters and Compiler-Checkers.
2	945 A/59, Volume III	Establishment—Central Tabulation Office, Madras—Selection and appointment of Sorters and Compiler-Checkers.
3	945 A/59, Volume IV	Establishment—Central Tabulation Office, Madras—Selection of Sorters—lists.
4	945 A/59, Volume V	Establishment—Central Tabulation Office, Madras—Sorters—Discharge.
5	945 B/59 . . .	Establishment—Central Tabulation Office, Madras—Supervisors—Selection and appointment.
6	945 C/59 . . .	Establishment—Selection of Tabulation Assistants from the category of Supervisors.
7	1101/60 . . .	Establishment—Office of the Superintendent of Census Operations, Madras and Regional Tabulation Offices—Staff—Confidential report.
8	3448/60 . . .	Establishment—Regional Tabulation Office, Coimbatore—Posts of Sorters and Compiler-Checkers—Creation and appointment.
9	9180/60 . . .	Establishment—Central Tabulation Office, Post of Accountant-cum-Cashier—Creation and appointment.
10	1137/60 . . .	Establishment—Office of the Superintendent of Census Operations, Madras—Detail of staff.
11	4170/60 . . .	Establishment—Regional Tabulation Offices—Creation of posts of peons, 1960-61.
12	7747/60 . . .	Establishment—Central Tabulation Office, Madras—Creation of posts etc.
13	158/61 . . .	Establishment—Central Tabulation Office, Madras—Deputy Superintendent of Census Operations—Sri. T. B. Bharathi—Appointment of.
14	1385/61 . . .	Establishment—Regional Tabulation Office, Coimbatore—Administrative Staff—Creation and appointment.
15	1386/61 . . .	Establishment—Regional Tabulation Office, Tiruchirapalli—Posts of Sorters and Compiler-Checkers Creation and appointment.
16	2046/61 . . .	Establishment—Regional Tabulation Office, Tiruchirapalli—Administrative staff—Posts—Creation and appointment.
17	4017/61 . . .	Establishment—Deputy Superintendent of Census Operations—Posts—Creation and appointment.
18	4486/61 . . .	Establishment—Regional Tabulation Office, Royapuram—Administrative staff—Creation and appointment.
19	4487/61 . . .	Establishment—Regional Tabulation Office, Royapuram—Creation of posts of Sorters and Compiler-Checkers—Appointment of.
20	1646/61 . . .	Establishment—Central Tabulation Office, Madras—Post of Attender—Selection and appointment.
21	1936/61 . . .	Establishment—Office of the Deputy Superintendent of Census Operations—Creation of posts—Continuance from 1st March, 1961 to 28th February, 1962.
22	2136/61 . . .	Establishment—Regional Tabulation Office, Madras—Creation of posts—Extensions from 1st March, 1961 to 28th February, 1962.
23	2130/61 . . .	Establishment—Regional Tabulation Office, Tuticorin—Sorters Selection and appointment.
24	2139/61 . . .	Establishment—Central Tabulation Office, Madras—Creation of posts—Extension from 1st March, 1961 to 28th February, 1962.
25	2145/61 . . .	Establishment—Regional Tabulation Office, St. Thomas Mount—Selection and appointment of Supervisors.
26	2148/61 . . .	Establishment—Office of the Superintendent of Census Operations, Madras and Deputy Superintendent of Census Operations and Central Tabulation Office—Relative personnel strength.
27	2527/61 . . .	Establishment—Office of the Superintendent of Census Operations, Madras—Selection of Sorters from the category of Copyists.
28	3174/61 . . .	Establishment—Regional Tabulation Office, Tuticorin —Supervisors—Appointment.
29	3238/61 . . .	Establishment—Regional Tabulation Office, Cuddalore—Sorters.
30	3238 A/61 . . .	Establishment—Regional Tabulation Office, Cuddalore—Supervisors—Selection.
31	3990/61 . . .	Establishment—Regional Tabulation Office, Royapuram, Supervisors—Selection and appointment.
32	4164/61 . . .	Establishment—Regional Tabulation Office, Cuddalore—Posts in various categories—Sanction—Posting—Transfers of staff.
33	4657/61 . . .	Establishment—Regional Tabulation Office—Tiruchirapalli—Supervisors—Selection and appointment.



## APPENDIX IX—contd.

Serial Number	Current Number	Subject
34	4660/A/61	Establishment—Tabulation Office—Posts of Statistical Assistants—Creation ordered.
35	4748/61	Establishment—Regional Tabulation Office, Coimbatore—Posts of Supervisors—Creation and appointment.
36	4895/A/61	Establishment—Temporary—Office of the Superintendent of Census Operations, Madras—Posts of Supervisors, Compiler-Checkers and Sorters—Sanctioned.
37	4927/A/61	Establishment—Regional Tabulation Office, St. Thomas Mount—Sorters and Compiler-Checkers—Selection and appointments.
38	4956/61	Establishment—Regional Tabulation Office, creation of posts of Supervisors, Compiler-Checkers and Sorters—Sanctioned.
39	6031/61	Establishment—Tabulation Offices—Creation of posts.
40	6184/61	Establishment—Office of the Superintendent of Census Operations, Madras—Posts of Supervisors and Sorters—Creation of.
41	11698/61	Establishment—Tabulation Cell—Selection of Sorters, Supervisors and Compiler-Checkers.
42	11959/61	Establishment—Office of the Superintendent of Census Operations, Madras and Tabulation Offices—Transfer of Central Government employees to other Governments, Companies, etc.—Deputation (duty) allowances.
43	12883/61	Establishment—Tabulation Offices—Particulars of Sorters, Compiler-Checkers and Supervisors.
ACCOMMODATION		
44	176/A/60	Accommodation—Central Tabulation Office, Madras.
45	176/B/60	Accommodation—Building for Regional Tabulation Office, St. Thomas Mount.
46	176/D/60	Accommodation—Building for Regional Tabulation Office, Coimbatore.
47	176/E/60	Accommodation—Building for Regional Tabulation Office, Cuddalore.
48	176/E/60	Accommodation—Building for Regional Tabulation Office, Tuticorin.
49	176/G/60	Accommodation—Building for Regional Tabulation Office, Tiruchirapalli.
50	176/J/60	Accommodation—Building for Regional Tabulation Office, Royapuram.
51	3670/63	Accommodation—Branch Office at No. 2, Kellys Road, Madras.
FURNITURE AND STATIONERY		
52	1011/60	Census, 1961—Sorting and Tabulation Offices—Supply of steel boxes—Regarding.
53	7479/A/60	Census, 1961—Central Tabulation Office, Madras, and Regional Tabulation Office, St. Thomas Mount—Supply of furniture—regarding.
54	7479/B/60	Census, 1961—Regional Tabulation Office, Tuticorin—Supply of furniture—regarding.
55	7479/C/60	Census, 1961—Regional Tabulation Office, Coimbatore—Supply of furniture—regarding.
56	7479/D/60	Census, 1961—Regional Tabulation Office, Cuddalore—Supply of furniture—regarding.
57	7479/E/60	Census, 1961—Regional Tabulation Office, Tiruchirapalli—Supply of furniture—regarding.
58	7479/F/60	Census, 1961—Regional Tabulation Office, Royapuram—Supply of furniture—regarding.
59	7555/60	Census, 1961—Office of the Superintendent of Census Operations, Madras—Provision of Fire Fighting Equipment—regarding.
60	845/61	Printing of Sorters Tickets, Compilers' Posting Statements and Miscellaneous Forms.
61	4659/61	Census, 1961—Supply of stationery articles to the regional Tabulation Offices—Regarding.
62	725/62	Census, 1961—Disposal of surplus articles of furniture on the winding up of Regional Tabulation Offices.
FORMS AND SCHEDULES		
63	1028/59	Census, 1961—Office of the Superintendent of Census Operations, Madras—Forms and Schedules—Collection and distribution of.
PREPARATION OF TABLES		
64	364/59	Census, 1961—Area figures of districts and taluks—regarding.
65	177/60	Census, 1961—A II Tables recasting of—regarding.
66	734/60	Census, 1961—State Table E and District Table A I—Area figures—Collection—regarding.
67	8205/60	Census, 1961—Housing Tables—Regarding.
68	706/61	Census 1961—B Series Tables—Regarding.
69	706/61	Census 1961—C Series Tables—Regarding.
70	706/61	Census 1961—D Series Tables—Regarding.

APPENDIX IX—*contd.*

Serial Number	Current Number	Subject
71	4545/61	Census 1961—Despatch of enumeration pads and household schedules.
72	5824/61	Census 1961—General Tables—Progress from Regional Tabulation Offices—Regarding.
73	6606/61	Census 1961—Progress report on sorting—Regarding.
74	6650/61	Census 1961—Forms for sorters for various sorter's tickets—Regarding.
75	6702/61	Census 1961—Note on marking system—Regarding.
76	6776/61	Census 1961—Particulars of factories and workshops—Regarding.
77	6777/61	Census 1961—Preparation of Primary Census Abstract—Regarding.
78	9788/61	Census 1961—Scrutiny of Primary Census Abstract—Regarding.
79	10104/61	Census 1961—Third conference of S.C.O.'s at New Delhi—February 1962—Regarding.
80	12131/61	Census 1961—Fertility Survey—Regarding.
81	13754/61	Census 1961—A Series—Tables—Regarding.
82	77/62	Census 1961—Scheduled Castes and Scheduled Tribes—Additional Tables—Regarding.
83	1396/62	Census 1961—Metropolitan Sorting—Regarding.
84	11963/62	Census 1961—Appendix to Table A-IV—Regarding.
85	604/63	Census 1961—Language Returns—Regarding.
86	5590/63	Census 1961—Housing Tables—Regarding.