

## REPORT

OF AN

## Enquiry into the Standard and Cost of Living of the Working Classes in Rangoon

BY
J. J. BENNISON, B.A, I.C.S. OPFICER.N.CHARGE
Labour Statistics Bureau, Burma




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## Betweer

pages
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## Resolution

## ON THE

Report of an Enquiry into the Standard and Cost of Living of the Working Classes in Rangoon.

Extract from the Proceedings of the Government of Burma (Judicial Department), - No. 170 V 28 , dated the 16 th June 1928.

Read-
The Repiort of the Officer-in-charge, Labour Statistics Bureau, Burma, of an Enquiry into the Standard and Cost of Living of the Working Classes in Rangoon and letter No. 365-8L - 25 , dated the 15th May 1928, from the Financial Commissioner, Burma (Transferred Subjects).

Resolved that-
The Report be published for general information.
By order of the Governor-in-Council.
H. L. NICHOLS,

Secretary to the Gouernment of Burmo, Judicial Dapartment.


Subiect :-Report of an Enquiry into the Standard and Cost of Living of the Working Classes in Rangoon.
I am directed to invite a reference to Mr. J. B. Marshall's report of the 5th December 1924, on the proposal to institute a Labour Statistics Bureau in Burma, in which collection of statistics relating to the cost of living for various classes of localities was mentioned as one of the functions of the suggested Bureau.
2. I am now to submit, in proof, for the information of the Local Government, a copy of a Report of an Enquiry into the Standard and Cost of Living of the Working Clases in Rangoon, by Mr. J. J. Bennison, 1.C.S., Officer-in-charge of the Labour Statistics Bureau. The report contains a quantity of information which the Financial Commissioner (Transferred Subjects) has no doubt, will prove of value for future reference. In Mr. Lloyd's opinion, Mr. Bennison and his assistants are to be congratulated on the successful completion of a laborious task.

## REPORT

# Enquiry into the Standard and Cost of Living of the Working Classes in Rangoon 

## Part I.-The Standard of Living in Rangoon.

Section A.-Main Budget Enguiry.
1.-Introduction.

Until comparatively recent years most people were extremely ignorant, and many still are, of the manner of living of other classes of the commanity than their own. During the second half of the nineteenth century questions were often raised in different countries regarding the standard of living of certain sections of the community, particularly of the working classes, and it was because little or no reliable information was available on the subject that investigations were started. The most satisfactory method of obtaining information about the standard of living of a class of the community is by means of a budget enquiry, in which information is obtained not only of the earnings of the families in that class but also of the articles bought and the prices paid for them.
2. The earliest investigations of any importance are probably those of Le Play, who, from 1829 to 1879, made detailed inquiries into the income, expenditure and general conditions of living of working class families, by living in or near them for some weeks. ${ }^{*}$ This method of inquiry by which very detailed information is obtained from a small number of families, is often referred to as the intensive method of investigation, and is typical of the researches of the eariy investigators, who were usually private individuals or associations. When ${ }_{r}$ however, generalisations were made from such enquiries they were open to

[^0]serious criticism on the ground that they were not representative. In many cases also they were biased in accordance with the views of the investigators. In order to compile budgets from which general conclusions could be drawn it was necessary for the investigations to be conducted on a much larger scale than was possible by the early investigators, and with a view to meet this need the Governments of different countries and also various public authorities began to conduct budget enquiries. The difference between these more exlensive enquiries and the intensive enquiries of the early investigators is that in the extensive enquiries an attempt was made to secure information from a large number of families, in order that the peculiarities of exceptional cases might be cancelled. The information obtained was not usually so detailed but there was a greater chance of the results being representative.
3. In any statistical investigation there are two courses open : one is to obtain statistics of all the cases covered by the investigation, which is that of the census, and the other is to obtain only a sample of the total number of cases. In budget enquiries the census method is impracticable and the sampling method must be followed; but in order that general conclusions can be drawn from the results obtained the sample must be a representative one, otherwise the results are merely representative of the families from which the budgets have been collected. It is a great weakness in many budget enquiries, which nullifies the conclusions drawn from them, that this requirement has not been even approximately fulfilied.*
4. According to resolutions adopted by the International Statistical Institute held in Rome in 1925 there are two chief methods by which a representative sample may be obtained. The first is called the method of random selection in which cases are so taken that each has an exactly equal chance of inclusion in the sample. In the second method, that of purposive selection, an attempt is made to pick out a number of cases which will together yield the same results as the total number of cases. It is difficult to obtain a representative sample by relying on only one of these methods, and it usually happens that the manner of selecting the cases possesses some of the characteristics of both methods.
5. In addition to furnishing information regarding the standard of, fiving, budget enquiries also supply data for determining the weights for the construction of cost of living index numbers, and it was in this

[^1]connection that a resolution was adopted at the Second International Conference of Labour Statisticians held at.Geneva in April 1925, to the effect that where family budget enquiries had not been held since 1920-21, it was desirable that such enquiries should be undertaken as soon as economic conditions were sufficiently favourable, and, if possible, not later than 1928.

## 2.-Scope of the Enquiry.

6. The section of the community with which this enquiry is concerned is the working classes in Rangoon. These have been taken to comprise ( $a$ ) the skilled and unskilled labourers in factories, (b) miscellaneous industrial labourers employed outside factories, such as coolies working on wharves, steamers and cargo boats, Corporation coolies employed mainly in the Conservancy Department, tram conductors and drivers, (c) casual workers, such as rickshaw and handcart pullers, bazaar coolies and sampanwallas, and ( $d$ ) independent workmen, such as craftsmen employed in the various cottage industries. Shop-keepers and assistants and domestic servants have not been included.
7. The factory labour is mainly Indian and Burmese, about 95 per .cent of the unskilled labour and 70 per cent of the skilled labour being Indian. The casual labourers and shipping coolies are also Indians, but those employed in cottage industries are usually Burmese. The most important races among the Indian working classes in Rangoon are the Telugus, Hindustanis, Chittagonians, Tamils and Uriyas, and budgets have been obtained from each of these races. There are a ferv other races among the Indian working classes but as the number belonging to each of these races is smallit was decided to exclude them.
8. Since the conditions of living in different quarters of Rangoon vary somewhat, it was considered necessary to obtain for each race a number of budgets from the different areas proportional to the number of labourers living there. The working class population not being evenly distributed between the fourteen revenue circles of the Corporation of Rangoon, they were combined and grouped into ten suitable divisions. In the case of the factory labourers statements were obtained from the more important factories giving the number of skilled and unskilled labourers of each race employed by them, and since the situation of these factories was known the distribution of these labourers in the different divisions was determined. As regards the miscellaneous industrial labourers figures were obtained from the contractors in the case of shipping coolies, and from the Corporation for Corporation coolies. These coolies live in more or less well defined areas.

The number of casual labaurers was calculated from the number of licenses issued. The distribution of these labourers was knownapproximately. The number and distribution of the artisan workmes were estimated from information supplied by the Superintendent of Cottage Industries. The previous experience of the Burmese Investigatorw U Po Wun in that department came in very useful.
9. The census tables were then examined to see if they could furnish any check on the figures thus abtained. At the last censusilthe population of Rangoon was 341,962 of whom 236,689 were males and. 105,273 females. The racial distribution was as follows : (see Imperial Table XIII, Parts IHA, IIIC and IV) :-

| Race. (1) |  | Males. $(2)$ | Females, (3) |
| :---: | :---: | :---: | :---: |
| Bengalis ... | $\ldots$ | 11,233 | 1,578 |
| Chittagonians ... | ... | 12,625 | 313 |
| Hindustamis ... | ... | 23,609. | 3.072 |
| Telugus ... | $\ldots$ | 56,884 | 9,192 |
| Tamils | ... | 27,763 | 14,283 |
| Uriyas | $\ldots$ | 5,557 | 404 |
| Other Indians | $\ldots$ | 16.866 | 5.955 |
| Burmese | ... | 52,167 | 50,758. |
| Chinese ... | ... | 15,928 | 7,891 |
| Europeane and altied races | $\cdots$ | 6,957. | 5,084 |
| Qthers | ... | 7,100 | 6,746. |
| Total | ... | 236,689 | 105,273 |

Thus out of, a total population is 1921 of 341,962 as many ass 189,334 were Indians-more than all other race日 put together-154,537 being males and 34,797 females, These figures: are for, the whole of Rangoos, and separate figures were required. fon each division. Thay original tabulation sheets compiled at the last census, were therefore obtained and from these sheets the number of males of each racein each division was worked out. These figures were of corurse for all elasses of people, rot only working classes, and for all ages, but in the case of the Chittagonians, Hindustanis, Telugus and Uriyas there are very few that do not belong to the working classe9. In the cenaus. tables the age distribution of the population is given according toreligion; not race; but except in the case of the Tamil families, the number of children among the Pndian races in Rangoon is very small,* particularly in the ease of the Chittagonians, Hindustanis and Urigas. After making allowances for the increase in the population since 1921, for the movement of the population from one area to another, for those not belonging to the working classes andl for children; estimates were

[^2]made of the number of maie radults of each race belonging to the working classes in each division, and these figures were used as a check on those previously obtained.
10. The following table shows the number of budgets, both single and family, obtained for each race from the different divisions :-

Classificalion of all Budgets according to Race and Division.


In the case of the Indian budgets it was decided to collect 4 per ont of the estimated number of workmen, but some budgets twere subsequently cancelled so that the percentage is between 3 and 4 . For the Burmese budgets, about 6 per cent were collected. It should be noted that the estimate in the case of the Burmese labourers employed outside factories was a very rough one, since accurate statistics were not available of the number employed in different occupations. Also it was often difficult to decide whether or not a particular family should be considered as belonging to the working classes. The dividing line is somewhat arbitrary
11. The classification of budgets according to race and occupation is shown in the following table :-

Classification of all Budgets according to Race and Occupation.

| Occupation.(1) | Race. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tefugas. <br> (2) | Tamils. <br> (3) | Uriyas, <br> (4) | Hindustanis. <br> (5) | Chittagonians. | Aurmese. <br> (7) |
| Skilled factory workers | 40 | 16 | 38 | 76 | 147 | 195. |
| Unskilled factory workers fother than contract coolies) | 252 | 10 | 51 | 194* | 297 | 51 |
| Rice-mill coolies (contract) .... | 291 | 167 | $\ldots$ | $\ldots$ | $\ldots$ | ... |
| Durwans and Peons ... | ... | ... | ... | 408 | ... | .- |
| Tramway workers ... | $\cdots$ | ... | 21 | $\therefore$ | ... | ... |
| Corporation coolies ... | 148 | ... | ... | ... | ... | $\ldots$ |
| Cargo boatmen ... ... | 136 | ... | ... | *.. | ... | $\ldots$ |
| Stevedore and wharf coolies ... | 125 |  |  | :- | ... | ... |
| Coal carriers .... ... | ... | 60 | 18 | $\ldots$ | $\ldots$ | - |
| Handcart pullers ... | 235 | 4 | $\ldots$ | ... | ... | ... |
| Rickshaw pullers ... | 208 | ... | ... | ... | -19 | $\cdots$ |
| Sampanwallas ... ... | ... | ... | $\ldots$ | 5 | 149 | ... |
| Gharrywallas ... ... | ... | ... | ... | 55 | ... | . |
| Compositors loutside factories) | .. | ... | $\ldots$ | ... | ... | 136 |
| Carpenters (private) ... | ... | ... | $\ldots$ | ... | ... | 119 |
| Cart drivers .... ... | - | ..' | ** | ... | ... | 99. |
| Motor mechanics and drivers (outside factories). | ... | ... | ... | ... | ... | 80 |
| Sandal and umbrella makers |  |  |  |  |  | 100 |
| Miscellaneous ... . | 43 | 32 | $\cdots$ | 35 | 61 | 212 |
| Total | 1,478 | 289 | 128 | 768 | 654 | 992 |

12. The following table gives the classification of the Indian budgets according to race, religion and caste :-

Classification of Indian Budgets (Single and Family) according to Race, Religion and Caste.


## ( 7 )

13. The majority of the married Indian labourers who come to Burma leave their wives and children in India, and the Indian budgets collected are therefore mostly single budgets. There are however some Tamil and Telugu families and a few tamily budgets have been obtained. from these races. From the Burmese labourers only family budgets have been collected. The one general restriction that was placed on the type of family was that it should contain no boarders or lodgers. The presence of boarders and lodgers 'complicates matters considerably and as the number of families containing them was small it was not considered that this restriction would affect materially the representativeness of the sample. The collection of the budgets was spread over the years 1926 and 1927.

## 3.-Collection of Information.

14. There is considerable variation among the different budget enquiries not only in the period for which information regarding the income and expenditure of the household has been obtained, but also in the manner of collecting this information. In some enquiries records have been kept for a period of one year, in others for a month, or even less. As regards the collection of the information, forms or account books have sometimes been"distributed in which the householders were requested to record their income and expenditure. The results obtained in this way have invariably proved disappointing. In some cases agents have been appointed to assist the householders in filling in the data required. Questionnaires have also been used in which the householders were required to give estimates of their income and expenditure. The actual recording of the information has sometimes been done by the bouseholders themselves, or, if agents have been appointed, by the agents.
15. The methods of conducting family budget enquiries were discussed at the Third International Conference of Labour Statisticians held at Geneva in October 1926, and one of the resolutions adopted was to the effect that information should be based on daily records of income and expenditure kept by a member of the family, and if possible for a period of twelve months. This assumes that householders always have sufficient intelligence to keep accounts, but this is rarely the case with the working classes in India." In the present enquiry: the information has usually been based on estimates supplied by the worker. The form used is given in Appendix A and is similar to that used in the Bombay working class budget enquiry. As regards the various particulars for which information was obtained a reference is invited to the form itself. Detailed instructions are also given there
[^3]Fegarding the filling up of the form. It will be seen that the tiems of expenditure are classified into the following groups: food, clothing, cent, fuel and lighting, household requisites and miscellaneous items.
16. It might perhaps be mentioned that when commodities were bought on credit at prices exceeding the market price, the market price was entered against the commodity and the excess entered in the miscellaneous group.. this excess being considered as interest on a debt. When commodities were obtained from an employer at a concession rate the market price was entered against the commodity and the difference added to the income under value of concessions. Supplies of free firewood and clothing were dealt with similarly.
17. In the case of food, fuel and lighting and items in the miscellaneous group, on which expenditure was incorred almost daily, there was no difficulty in obtaining monthly estimates, but for clothing and household requisites a roundabout method had to be adopted. The monthly expenditure on these articles was obtained by dividing the original cost, when bought, of the articles actually in use. by the number of months they were estimated to last. In the family budgets the expenditure on clothing of each member of the family was recorded separately.
18. The rent paid by a tenant usually includes ground rent payable to the Development Trust and certain taxes payable to the Corporation, such as the general .tax and service taxes. These charges have therefore been included under rent. In parts of Rangoon some of these services are not supplied and the rent does not include the corresponding service tax. If in such cases additional expenditore was incurred by the worker on any of these services, e.g. on a waterman, such expenditure was included under rent in order to effect assimilation. Where a house was owned by a worker an estimate of the net revenue which an independent owner of the house would receive was added to the income, while the amount which a tenant would have had to pay for the house was recorded as expenditure under rent. In many cases workers were supplied with free quarters and these were dealt with in a similar manner.
19. There are certain services which in some families are performed by members of the family but which in others are paid for, e.g. cooking and washing. In the case of the Indian races a cook is often supplied free by the employer, but where this is not done, the cooking is usually done by the worker himself or by a member of his family. In Burmese families the cooking is dome by a member of the family. It is, however, impossible to estimate the value of this service and it has therefore been omitted both from income and expenditure. In the very few cases among the Indian workers where expenditure was actually incurred for a

## (9)

cook the amount was deducted from the income and not entered in the bedget as expenditure. The estimated value of any washing done by members of the family should theoretically be added to the income, and balanced by an equivalent amount on the expenditure side of the budget. In this case also it is impossible to estimate the value of the service and it has therefore been omitted from both income and expenditure. Where expenditure was actually incurred on a dhobi (washerman) it has been entered in the budget.
20. The actual collection of the forms was done by investigators. It has been explained in the previous paragraphs that estimates were obtained of the number of workers of each race belonging to each of the four main classes of labour in each division, and that the number of budgets collected was a certain percentage of this number. In this way, which is that of purposive or specific selection, a fairly representative sample was obtained, the investigators being instructed to collect a certain number of budgets of a particular race, from a particular class of labour in a particular division in order to make up therequired number.
21. In addition to the three salaried investigators attached to the office, outside investigators were employed. These outside investigators had to undergo a preliminary period of training before being allowed to collect budgets. The investigators visited the houses of the workers one or more times during the month and filled in the required data in the form from estimates supplied by the worker. Much patience and skill were required in order to obtain accurate information: Workers usually overestimate their expenditure and moderestimate their income, and it is only after a considerable time spent in argument that the actual facts can be elicited. These estimates are of course not free from errors, but remarkably accarate results can be obtained from such data provided a sufficient number of budgets is taken, and care is taken to ensure that the errors are not biased or systematic. In order that errors and exceptional features in individual budscts might be largely cancelled a large number of budgets was collected. The collection and checking of such a large number was a* slow and expensive business, but in the circumstances was necessary if the resalts were to be of any value.
22. Although in the majority of budgets information was based on estimates supplied by the worker, in some cases it was obtained from actual records. For example, for each of the Indian races a number of budgets was obtained in which the food expenditure was based on records. In the budgets used in the supplementary Burmese enquiry the mevestigators visited the family daily for the whole month and noted down the expenditure incarred the previous day on articles, such as food, fuel and lighting and items in the miscelianeous group which were
purchased almost daily. By adding the stock at the beginning of the month to the purchases during the month and subtracting the stock at the end of the month, the amount actually consumed during the month was obtained. The cash in hand at the beginning of the month plus the money received during the month was checked with cash purchases during the month plus cash in hand at the end of the month. The amount of indebtedness at the beginning of the month togetherwith the debt incurred during the month was also checked with the repayment of debt during the month plus the amount outstanding at the end of the month. In some cases, these amounts were not known accurately, but the drawing of these balances furnished a useful check on the accuracy of the information. The monthly expenditure on clothing and household requisites in these budgets had to be obtained in the usual way.
23. It might perhaps be mentioned that the information collected daily was at first written down by the investigators on blank sheets of paper in any order, and later on classified. This was soon discovered to be a long and tedious business, and the names of the different commodities were then written in a definite order-the order in which they appear in the budget form in Appendix A-at the heads of columns, and the daily purchases were then entered underneath. This procedure greatly facilitated the totalling and subsequent calculations.

## 4.-Compilation of Results.

24: In addition to giving general averages for all the budgets collected in an enquiry it is desirable, if the number is adequate, to classify them and give separate averages for eaohiclass. The object of this is to show how the standard of living varies from one class to another. For instance, the budgets might be classified according to race, district, occupation or industry. But perhaps the most useful way of classifying budgets is according to income and size of family. In most budget enquiries families have been classified according to the income - of the family only, but such a classification is not satisfactory. Families in the higher income classes are often greater in size than those in the lower income classes and it is conceivable that their standard of living might be actually lower than that of the lower income classes. Some account must therefore be taken of the size of the family also. The number of persons might be taken for this purpose, but a "person" is not an exact unit since the consumption of persons of different age and sex is not the same.
25. The problem of measuring the size of the family also arises in comparing the expenditures of different classes. No matter how the families are classified the average size of the families in the different.

## ( 11 )

classes will not be the same, and it is therefore difficult to compare the expenditures in these classes unless there is a suitable scale for measuring the size of the family. The problem is further complicated by the fact that the relationship which exists between the consumption of persons of different age and sex differs from one group of commodities to another.
26. An account of the scales used in different countries is given in the report of the International Labour Office. Most of the scales constructed have been for the food group and have been based on the food requirements in calories of persons of different age and sex. These show considerable variation which may be partly due to differences in living conditions in the different countries. No scale for food appears to have been drawn up for any Eastern country. It does not of course necessarily follow that the relative expenditures on food for persons of different age and sex would be proportional to their food requirements in calories, since the calories in children's food might not cost the same as those in the food of adults, and also children might not always get the calories they require.
27. As regards the other groups of commodities the only method of securing scales appears to be that of obtaining from a number of families the expenditure of each member of the family on the different articles in the group. This is most easily done in the case of clothing, the consumption of which is individual in charactex. Such a scale has been obtained in this enquiry for the Burmese families (see paragraph 58) This method might also be used for food although difficulties might arise owing to the common consumption of food. For housing accommodation, fuel and lighting and household requisites which are not consumed individually, estimates would have to be made of the expenditure necessary for each member of the family.
28. In the report of the International Labour Office a reference is made to an investigation by Mr. Edgar Sydenstricker and Mr. Willford 1. King. In this investigation a scale was drawn up for certain articles of individual consumption based on the actual expenditure incurred on them by persons of different age and sex. This scale was then combined with a scale obtained for the food group and the resulting scale purported to show the relative consumption of persons of different age and sex in respect of articles which represented about 89 per cent of the total expenditure of the families. This scale was then used to represent the relative consumption in respect of all articles. It was originally intended to obtain a similar scale on these lines for the Burmese families. The reasons for not doing so are given in Appendix *
29. The compilation of the results in the case of the single budgets did not present any difficulty since there was only one person for each
budget. They were classified according to income. The family budgets were classified according to income per unit. The Lusk coefficients based on food requirements were used to measure the size of the family. In this scate an adult male is taken as unity, a woman as 83 , a child 10 but under 14 as 83 , a child 6 but wnder 10 as " 70 and a child under 6 as ' 50 . The income per unit was obtained by dividing the income of the family by the size as expressed in these units.
30. For the family budgets averages per family have been given for each class, and also, in the case of the Burmese budgets, averages per unit for all groups except clothing, in which group averages bave been given per man, per woman and per child. In all the tables in this Report, except where specifically stated, men and women have been taken to be 14 years of age and over. For the Burnese families averages per family have also been calculated for "families purchasing the commodity" and the "percentage of families purchasing" and the price of the article" have also been given in the same table (e.g. see Table VIII). The price of the article in these tables is the average price for the years 1926 and 1927, as obtained from the budgets. Sinilar information has been given for the single budgets. In the case of food and clothing the quantities of the different articles consumed or used have been given in addition to the expenditure on them. This has not been done for the other groups as it was either impracticable or impossible to give this information for the majority of the items.
31. The application of the Lusk scale to other groups than food is admittedly unsatisfactory, and the only argument for using it is that suitable scales do not appear to be available. In this connection a nesolution adopted at the Third International Conference of Labour Statisticians may be quoted, namely that " for reducing data for families -of different size to terms of a common unit, it is desirable, where suitable scales showing the relative consumption of persons of different age and sen are available, to apply one scale to food commodities and a second scale to other items." But as far as is known suitable scales are not in existence for "other articles than food." For the present, therefore, the Lusk scale has been adopted but the composition of the family in each income class has also been given so that if scales are subsequently established they can be used in order to obtain suitable averages per mit for the different groups. It might be mentioned here that since the figures in the tables are given with a certain degree of precision, e.g., expenditures to the nearest pie, and percentages to the nearest tenth, it sometimes happens that a total differs slightly from the sum of the details.

[^4]
## (13)

## 5.-Results of the Enquiry.

(a) Burmese Family Budgets.
(i) Income and Size of Family.
32. It has already been stated that no family was taken which included boarders or lodgers. A few families were also ruled out because all the members were not solely dependent on the family. Younger brothers and sisters, nephews, nieces and other relations of the parents, who were under fourteen years of age were treated as children since for all intents and purposes they were children. In the supplementary Burmese enqairy a discrimination was made between the husband and adult sons, and between the wife and adult daughters: In this main enquiry all adult males were lumped together, and all adult females were treated similarly. This simple classification was considered preferable to a more elaborate one which took into account the relationship of the adult members to the head of the household:
33. The composition of the average family in each income class is: given in the following table*:-
Composition of the Average Family in the Different Income Classes.

|  | Income per onit. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Below <br> Rs. 15. | Rs. 15 and onder Rs. 20. | $\begin{aligned} & \text { Rs. } 20 \\ & \text { and } \\ & \text { pader } \\ & \text { Rs. } 25 . \end{aligned}$ | $\begin{gathered} \text { Rs. } 25 . \\ \text { and } \\ \text { mnder } \\ \text { Rs. } 30 \end{gathered}$ | Above <br> ks, 30 | $\left\lvert\, \begin{gathered} \text { All } \\ \text { income } \end{gathered}\right.$ |
|  | Average number of personts per tamily. |  |  |  |  |  |
| Earsers. <br> Men (18 and above) Women (18 and above) Men (14 and under 18) Women (14 and under 18) ... Children (10 and under 14) Children ( 6 and under 10) ... |  |  |  |  |  |  |
|  | 1.00 | 105 | $1 \cdot 65$ | 102 | 103 | 104 |
|  | $\cdot 48$ | $\cdot 48$ | '43 | $\cdot 33$ | $\cdot 24$ | $\cdot 42$ |
|  | -05 | . 05 | -02 | 4 | ... | -03 |
|  | '03 | . 04 | 01. | -02 | ** | . 02 |
|  | $\cdot 07$ | $\cdot 3$ | ... | ... | ... | -02 |
|  | 01 | O 0 | ... | ... |  | 0 OL |
| Total Eamers ... | 1.64 | 1.65 | $1 \cdot 51$ | 137 | 1.27 | 1.54 |
| Nom-adrovers. <br> Men (18 and abowe) <br> Women (18 and abovel <br> Men (14 and under 18 <br> Women (14 and under 18)... <br> Children (10 and under 14) <br> Children it and under 105... <br> Children (under ${ }^{6}$ | $\cdot 17$ | $\cdot 13$ | 05 | '02 | . 01 | 09 |
|  | $\cdot 85$ | -76 | -65 | 79 | $\cdot 76$ | $\cdot \%$ |
|  | -16 | 05 | 03 | . 02 |  | -65 |
|  | -11 | 11 | '07 | . 02 | -01 | -08 |
|  | $\cdot 57$ | '25 | 13 | 04 | 07 | 23 |
|  | $\cdot 76$ | -34* | -12 | . 06 | 04 | -2\% |
|  | 110 | 78 | 67 | -39 | 07 | '68 |
| Total Non-earners | 3.71 | 2740 | 175 | 1.34 | 96 | 267 |
| Total number of persons ... | 5.35 | 405 | 327 | 2768 | 223 | 371 |
| Total number of units | $4 \cdot 24$ | 3.28 | $2 \cdot 65$ | 224 | 1.99 | 3.01 |

"This is similar to Table VIl in "Has Poverty Diminished ?" by A. L Bowey and M. H. Hogg.

The average family is composed of $3^{\prime} 71$ persons or $3^{\prime} 01$ units. It is probable that these figures are on the small side. It was very difficult to obtain a sample which was representative in this respect. There was a natural bias on the part of some of the investigators to collect budgets from families of small size as they were less troublesome. This had to be guarded against and many of the budgets of the outside investigators were cancelled for this reason.
34. It will be seen from the table above that the number of persons in the lowest income class is 5.35 as compared with 2.23 in the bighest class. The larger number is mainly due to the greater number of persons under 18. For instance in 100 families in the highest income class there are 104 men and 100 women 18 years of age and over, but only 19 persons under 18, whereas in the lowest income class the number of men has increased by 13 to 117, the number of women by 33 to 133 and the number of persons under 18 by 266 to 285 . It would appear from this that grown up children do not stay long with their parents. It will also be noted that the number of earners in the larger families is not very much greater than the number in the smaller ones. Thus in 100 families in the highest income class the number of earners is 127 , of which 103 are men and 24 are women 18 years of age and over, whereas in the lowest income class the number of earners in 100 families has increased by only 37 to 164 and of this number, 100 (a decrease of 3 ) are men and 48 (an increase of 24) are women 18 years of age and over, the remaining 16 being under 18 . These remarks, of course, apply only to Burmese working class families in Rangoon and not to Burmese families generally.
35. It is a matter of some interest to note the changes that take place in the fortunes of a family from the date it is formed until it is finally dissolved. According to the investigations of L. Varlez and B. S. Rowntree "there are two critical periods in the life of a working class family, the first being during the first years of marriage when the number of children increases' and at the same time the income falls because the wife must give up earning and devote herself altogether to the home, and the second when the children have left home and the husband's earnings have fallen owing to advancing age. Between these two stages there is a period of comparative prosperity, namely, when the children have grown up and contribute by their earnings to the support of the whole family"." In the case of the Burmese families grown up children do not appear to contribute much to the support of the family and the period of comparative prosperity, if it exists at all, is a very brief one.

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36. If a reference is made to the figures in the foregoing table for "all incomes" it will be seen that in every 100 families there are 154 earners and 217 non-earners. Of the earners 104 are men and 42 are women 18 years of age and over, and only 8 are under 18 ; of the 217 non-earners 9 are men and 76 are women 18 years of age and over, 13 are between 14 and 18, and the remaining 119 are children under 14. Of the men and women 18 years of age and over, just under 8 per cent of the men (about 1 in 13) and 64 per cent of the women (about 2 in 3) are non-earners. In the case of those 14 years of age and under 18 , three out of every eight boys and one out of every five girls are earners.
37. The classification of families according to the number of earners and non-earners is shown in the following table":-

Classificalion according to number of Earners and Non-earners.

| Number of Non-earners. | Number of Earners. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 and more. | Totals. |
|  | Percentage of Families. |  |  |  |  |
| 0 | ... | 7 | 1 | 1 | 9 |
| 1 | 14\% | 12 | 24 | + | 293 |
| 2 | 163 | 71 | 11 | 1 | 26 |
| 3 | 122 | 51 | 1 | \% | 194 |
| 4 | 64 | 2 | 4 | $\cdots$ | 9 |
| 3 | 34 | $\ddagger$ | $\ldots$ | $\cdots$ | 4 |
| 6 \& more | 2 | 1 | ... | ... | 3 |
| Totals ... | 551 | 354 | 64 | 2 | 100 |

This table is read as follows: 7六 per cent of the families had 2 earners and 2 non-earners.

It will be seen that more than half the families have only one wage. earner, more than a third have two, and less than 10 per cent have three or more. It is interesting to compare these results with those

[^6]obtained for working class families in England. In "Has Poverty Diminished $?^{"}$ an enquiry was held into the economic conditions of working class househalds in certain towns in 1924 (in the case of Stanley the year was 1923). In Stanley 12 pev cent of the families. cointained 3 , or more earners, but in Reading there were 19 per cent, in Bolton and Northampton 23 per cent and in Warrington as: many as. 33支 per cent.
38. As regards the average income of the family this varies from Rs. 54-11-5 in the lowest income class to Rs. $65-13-8$ in the highest (see Table I). This is not a very big range, the main reason for the higher economic status of a family baing the smaller number of children. The average income for all families is Rs. $58-8-3$, * of which Rs. 52-8-4 or aboat 90 per cent is provided by men ( 14 years and over), Rs. 5-11-11 or about 10 per cent by women ( 14 years and over) and 4 annas or less than $\frac{1}{2}$ per cent by childrent (under 14). The average earnings of an earning man were Rs. 48-1-5, of an earning woman Rs. 12-14-9, and of an earoing child Rs, 2-2-1. $\dagger$ The figures for the balance of income over expenditure are not very reliable but they would appear to indicate that most families spend up to the limit of their income.
(ii) Percentage Expendilure on Groups.
39. In Table I the expenditures on the different groups are expressed: as percentages of the total expenditure and also of the total income. The percentage expenditures or the groups for all incomes are as-follows:-
\[

$$
\begin{array}{lllllr}
\text { Food } & \ldots & 52.8 & \text { Fuel and Lighting } & \ldots & 52 \\
\text { Cothing } & \ldots & 10^{\circ} 6 & \text { Hewsehold Requisites } & \ldots & 26 \\
\text { Honse rent } & \ldots & 13^{\prime} 2 & \text { Hiscellaneous } & \text { M }
\end{array}
$$
\]

In Bombay $\ddagger$ the following percentages were obtained for the working classes there :-

| Food | $\ldots$ | 56.8 | Fuel and Lighting | $\ldots$ | 7.4 |
| :--- | :--- | ---: | :--- | :--- | ---: |
| Clothing | $\ldots$ | 9.6 | Miscellaneous | $\ldots$ | 18.5 |
| House rent | $\ldots$ | 7.7 |  |  |  |

In the Bombay enquiry household requisites were divided between clothing and miscellaneous groups, bedding being included under clothing and cooking pots and furniture under miscellaneous, items. Burmese families arpear to spend a smaller percentage on food and fuel and lighting but a greater percentage on house rent and clothing. The percentage for miscellaneous items is also slightly less than in Bombay, but there is very little expenditure on liquor by Burmese families, whereas in Bombay it amounts to 4.1 per cent, of the total expenditure.

[^7]40. The relationship between income and the percentage expenditures on groups of commodities appears to have been first studied by Ernst Engel. From data collected by the Belgian Statistical Commission in 1852 and 1854 he formulated certain "laws" which, stated briefly, are that as the income of a family increases a smaller percentage is spent for food, a constantly increasing percentage for education, health, recreation, amusements, etc. and about the same percentage for clothing, rent and fuel and lighting. It is usual in budget enquiries to examine the extent to which these "laws" hold good. If a reference is made to Table I it will be seen that as the income per unit increases, the percentage expenditure on food decreases while that on miscellaneous items increases. For fuel and lighting the percentage remains about the same. On the other hand, the percentage expenditures on clothing, household requisites and house rent all increase. Generally, it may be said of the working classes in most countries that as the economic status of the family rises the percentage expenditure on food decreases, and that on miscellaneous items increases, while for the remaining groups the percentage does not alter so much. In the supplementary Burmese enquiry equations are obtained showing how the percentage expenditures on the different groups change when the income changes, the size of the family being kept constant, and when the size of the family changes, the income remaining unaltered.

## (iii) Expenditure on Food.

41. The average quantity and cost of food consumed by Burmese families are given in Table II. For all incomes the monthly expenditure per family is Rs. 29-14-6, the main items being Rs. 9-0-8 on rice, Rs. 5-13-4 on fish, Rs. 3-5-10 on meat, Rs. 2-4-5 on sesamum oil, Rs. 2-6-5 on vegetables and fruit, Rs. 0-13-9 on salt, spices and condiments, and Ks. 5-4-7 on food bought and consumed away from home, of which as much as Rs. 2-2-1 is spent on cups of tea.
42. Since the size of the family varies considerably in the different income classes a better statement for comparing the expenditure in these income classes is Table III which gives the expenditure per unit instead of per family. It will be seen that the quantity of rice consumed per unit increases from 8.83 viss in the lowest income class to $10^{\prime} 42$ viss in the highest, the average for all families being 9.34 viss. The increase is greatest in such items as meat, vegetables and cups of tea.
43. In reading Table III it must be remembered that the quantity given in it for say, rice, does not include all the rice that is consumed. In budget enquiries it is usual to enter as a separate item any expenditure on meals bought and consumed away from home. This is given at the bottom of the table and includes expenditure on cups of tea and coffee and "others", this last head being expenditure on made up dishes bought from hawkers. These dishes are usually brought round
by the hawkers and are consumed by the families at home, but since there was a great variety of dishes and it was not known what exactly they contained they were treated as food bought and consumed away from home.
44. Expenditure on cups of tea and coffee was always given separately in the budget, but as arnle only the total expenditure on these dishes was antered. In order to find out how a givenexpenditure was: distributed among them the budgets collected for the supplementary Burmese:enquiry were used. In those:budgets-about 250 in numberthe; expenditure on each dish was, recorded daily for a month. But.since the:number of dishes amounted to more,than fifty, many of which.were taken only very occasionally, twelve of the most important were selected and the.expenditure distributed among these twelve. The investigators then obtained from the different vendors the quantities of commodities used in the preparation of each of these twelve, and the amount for which, each mwas sold. In this way the guantities of rice, oil, etc., obtained for a given expenditure on these made-up dishes were worked out. The following are the commodities obtained for an expenditure of one rupee s.rice 21 viss, wheat flour 23 viss, pulses 31 viss, fish 06 viss, meat 01 viss, sugar and jaggery; 03 viss, sesamum ail $\% 06$ viss, fruit and yegetalbles about a viss, and also various spices and condiments. Pulses are usually taken in the form of pebyok, and wheat four as nanbya. As a rule, these are bought from hawkers, and this explains why there is no expenditure on wheat flour in Table III and very little on puises. When these areitaken into account the average monthly consumption of cereals per unit comes to 9.80 viss (rice 9.56 viss) and pulses 37 viss. ${ }^{W}$, mast be borne in mind that these figures for the consumption per unit will liepresent the consumption of an adult male only if the conversion scole is correct. This matteris discussed later in paragraph 51.
45. In 'Table VHFI averages are given for "families purchasing" as well as for "all families." The average price of each commodity and: the percentage of, families purchasing the commodity are also given. it will be seen that expenditure: is incurxed on, rice, frest fish, wet salt 6ish ( $n g a b$ ), salt, onigns, and sesamum oil bypractically all the families. As regards thea, about 35 iper cent of the families (roughly ione in (khree) make, their own, and about 67 per cent, (two in three) obtain it:from tea shops. :Some do both, but about 16 per cent of thefamilies so, not ipcur, any expenditure on tea at all (this is not given in the table). Less than 5 per cent of the families incur any expenditure on coffee. Potatoes are pot bought, by all the families, nor is diry salt fish. As regards meat, beef is eaten by about 80 per cent of the families and pork by about 40 per cent, the number of families which consume, ather kinds of meat being small. About 6 per cent of the families do not buy meat of any kind (this is not given in the table). Practically all the families, buy some kind of fogd from pawkers.
46. In Table VIII the families purchasing a particular article of food do not include those families who obtain the article anly in "food bought and consumed away from home." The articles in the table to which this might apply are sugar, gur, condensed milk, tea, coffee, eggs and perhaps some linds of meat, and the percentage of families purchasing these articles as given in the table may therefore be slightly less than the percentage of families consuming them. In the case of tea and coffee expenditure on the dry leaves or powder, and on cups is shown separately.
47. In Appendix C the nutritive value (as expressed in calories) of some of the more important articles of food is given. These figures have been supplied by the Harcourt Butler Institute of Public Health. In the last column the cost per thousand calories has been worked out. It will be seen that cereals and pulses are much the cheapest foods from a caloric point of view, rice being only 10 pies per thousand calories. Ghee is much more expensive than vegetable oils. Beet is the cheapest of the meats and mutton the dearest. Sweetened condensed milk is much cheaper than ordinary milk. Fish appears to be the most expensive food of all.
48. The gross calories consumed per day per unit by Burmese families and the articles from which they are obtained are given for each income class in the following table :-

Gross Calories consumed per day per unit by Burmese Families and the Articles from which they are obtained.

| Commodity. | Income per unit. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Helow <br> Rs. 15. |  | Rs. and un Rs. | $\begin{aligned} & 15 \\ & \text { nder } \\ & 20 . \end{aligned}$ | Rs. and an Rs. | $20{ }^{20}{ }^{-1}$ | Rs. -Rs. |  | Abo Rs. | $\begin{aligned} & \text { yve } \\ & 30 . \end{aligned}$ | $\begin{array}{r} \text { All } \\ \text { incon } \end{array}$ | pes. |
|  | Gross calories consumed per day per unit. |  |  |  |  |  |  |  |  |  |  |  |
|  | \% |  | $\frac{1}{\mathbf{Z}}$ |  | \% |  |  |  | 发 |  |  |  |
| Rice | 1,741 | 760 | 1,783 | 71.4 | 1,915 | $70 \cdot 4$ | 2,004 | 679 | 2,066 | $65 \cdot 2$ | $1 \times 45$ | 71.2 |
| Wheat four | 39 | 17 | 46 | 1.8 | 49 | . $2 \cdot 18$ | 53 | 18 | 60 | 19 | . 47 | 18 |
| Pulses | 57 | 2'5 | 70 | 2-8 | 76 | $2 \cdot 8$ | 81. | 27 | 103 | 32 | 71 | $2 \cdot 7$ |
| Fish | 59 | $2 \cdot 5$ | 71 | 28 | 78 | $2 \%$ | 82 | 2:8 | 92 | 29 | 73 | 28 |
| Meat | 65 | 28 | 103 | . 42 | 125 | $4 \cdot 6$ | 143 | A-8 | 170 | 54 | . 109 | 42 |
| Milk | 10 | 5 | 18 | $\cdot 7$ | 36. | $1 \cdot 3$ | 43 | .14 | 46 | $1 \cdot 5$ | 25 | 9 |
| Sugar and gur ... | 33 | 14 | 51 | 2.0 | 80 | $3 \cdot 1$ | 86 | $2 \cdot 9$ | 102 | $3 \cdot 2$ | 62 | $2 \cdot 4$ |
| Sesamum oil ...t | 222 | 977 | 272 | 109 | 254 | 93 | 3.44 | 11.7 | 396 | 12'5 | 268 | $10 \cdot 4$ |
| Fruit and vege-; tables. | (7) | , 29 | 86 | ${ }^{3}+4$ | 103 | ; 3 | ${ }^{1} 117$ | 40 | 133 | 4.2 | 92 | 3,6 |
| Total | 2,292 | 100 | 2,500 | 100 | 2,722 | 100 | 2,953 | 100 | 3,168 | 100 | 2.592 | $1{ }^{6}$ |

49. The calories obtained from food bought and consumed away from home have been distributed among the different articles of food according to the proportions given in paragraph 44. The calories from cups of tea and coffee have been divided between milk and sugar. The fruit and vegetables were taken to contain 872 calories per ounce, which was the figure obtained by the Harcourt Butler Institute of Public Health from a sample. A very small number of calories obtained from eggs has been included under meat.
50. The percentage of calories obtained from cereals decreases from $77^{\circ} 7$ in the lowest income class to $67^{\circ} 1$ in the highest, the figure for all incomes being 73. Except in the highest income class, less than 3 per cent. of the calories are obtained from pulses. In the lowest income class 5.3 per cent. of the calories are obtained from fish and meat and in the highest class 8.3 per cent. For all incomes the percentage is 7 . About 10 per cent. of the calories are obtained from sesamum oil.
51. The total number of calories consumed per day per unit varies from 2,292 in the lowest income class to 3,168 in the highest. The number for all incomes is 2,592 which is much smaller than the number consumed by the Indian races, the smallest for these races being 2,962 for Chittagonians (see paragraph 75). The daily allowances for Asiatic prisoners in jails is given in Appendix D. The number of calories contained in their diet, as worked out by the office of the InspectorGeneral of Prisons, is 3,221 for male labouring prisoners and 2,776. for male unconvicted prisoners. It would appear therefore that the number of consumption units as expressed in terms of the consumption of an adult male is too large, i.e. that the requirements in calories of Burmese children or females are not as great as they are represented to be in the Lask scale of food requirements, which was the scale used to obtain the number of units in the family. Or perhaps some allowance ought to have been made for the reduced consumption of elderly people. On the other hand, the Burman workman is usually a skilled or semi-skilled labourer and is rarely engaged in any really hard muscular work. He therefore needs fewer calories than, say, Telugus who are usually engaged in very hard manual labour. Also a bigger proportion of the calories consumed by Burmese families is obtained from meat and fish and a smaller proportion from cereals and pulses, and it is therefore possible that a Burman absorbs a bigger proportion of calories than an Indian. However, in the absence of a reliable scale giving the food requirements of persons of different age and sex it would be anwise to draw any conclusions.

## (21)

52. The following table gives the gross calories of protein, carbohydrate and fat consumed per day per unit by Burmese families in the different income classes:-

## Gross Calories of Protein, Carbohydrate and Fal consumed per day per unit by Burmese Families.

| Income per unit. | Gross calories consumed per day per unit. |  |  |  |  |  | Percentage of calories |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | - |  | 宊 | $\begin{gathered} \text { 포 } \\ \stackrel{y y y}{*} \end{gathered}$ |  |  |  |  |
| Below Rs. 15 | 245 | 1,704 | 343 | 2,292 | 142 | 2.150 | 6.2 | 107 |
| Rs. 15 and under Rs. $20 .$. | 277 | 1,793 | 430 | 2,500 | 205 | 2.295 | 82 | 11.1 |
| Rs. 20 and under Rs. $25 .$. | 306 | 1,975 | 440 | 2,721 | 236 | 2,465 | 94 | 11.2 |
| Rs. 25 and under Rs. $30 . .$. | 327 | 2,076 | 550 | 2.953 | 287 | 2.066 | 97 | 11.1 |
| Rs. 30 and above | 356 | 2,181 | 631 | 3,168 | 332 | 2,336 | 105 | 11.2 |
| All incomes | 287 | 1,870 | 435 | 2,592 | 221 | 2,371 | $8 \cdot 5$ | 11 |

It will be seen that the percentage of calories obtained from foods of animal origin, e.g. meat, fish, milk, eggs, increases from 62 in the lowest income class to 10.5 in the highest, the figure for all incomes being $8^{\circ} 5^{\circ}$. The percentage of protein calories for all incomes is 111 which is rather low.
53. Families in the lowest income class secured 9,149 calories for each rupee spent and those in the highest class only 6,794 . The number for all families is 7,825 , which is smaller than the number obtained by the Indian races (see paragraph 79). This may be partly due to the larger percentage of expenditure on meat and fish which are expensive foods from a caloric point of view, but is also due to the greater percentage expenditure on food consumed away from home, which gave only 5,969 calories for every rupee.

## (iv) Expenditure on Clothing.

54. The monthly expenditure on clothing per family is given in Table IV. The method of obtaining this has been explained in paragraph 17. In this table is also given the number of articles purchased per yeart. This has been obtained by multiplying the monthly expenditure by 12 and dividing the product by the price of

[^8] by dividing the total' cost, when bbight, of the articles actually in use by the families in that income class, by the nurribef of articles.
55. Since in each budget the monthly expenditure on clothing was: obtained for each member of the family the average monthly expenditures per man, per woman and per child have been calculated. Theresults are given in Table $V$. The average expenditures per man, per womañ and per child are Rs. 2-6-0, Rs. 1-12-2, and Rs. 0-11-2 respectively. It will be seen that men and women in the highest income class spend about twice as much on clothing as those in the lowest income class. For all incomes a woman's expenditure on clothing is. about three quatters that of a man.
56. It will be seen from Table IX that cotton longyis; shirts. (bodices in the case of women) and jackets (aingyis) are worn by men and women in practically all families, but all of them cannot afford silk longyis, gaungbaungs and pawas. In about a third of the families. shoes are worn by men. Practically all men and women wear shoes or sandals of some kind.
57. In the budget form in which information was collected the principal material of which each article was made was entered, and in the sheets in which the information was tabulated the monthly expenditure on each article was entered separately for each material. It was found that cotton longyis are made of woven or printed sarong. Most of the silk longyis come from Mandalay, but Tavoy and Shwedaung. Longyis are also fairly common. Bangkôk, Arảkan, Pakökku, Chinese and Japanese longyis are also found. Men's shirts are usually made of white twill. Women's bodices are invariably made of longcloth. Gaungbaungs and pawas are usually of Japanese silk, and men's cotton' banians are also of Japanese make. As a rule women's jackets-are mader of lawn but longcloth is not uncommon. Men's jackets, on the other' hand, are made of a variety of materials. About half the expenditure for men's jackets is on lawn, about a fifth on serge, a tenth on taffeta and the remainder on longcloth, pinni, poplin and tweed. This accounts. for the high price of men's jackets-as compared with women's-given in Table IX.
58. In the discussion, about conversion scales at the Third International Conference of Labour Statisticians held at Geneva in October 1926 it was suggested by Mr. Pribram' of the International' LabourOffice that the Governments of the different countries might conduct investigations with a view to establishing suitable scales for each group. of commodities. In the present enquiry this has been done for the clothing group. Budgets were selected of families containing a husband; wife and a child within certain age limits. Male and female childrenwere treated separately. The expenditures on the clothing of the husband, wife and child were then written down and the averages

## ( 23 )

obtained for the budgetsil selected. If a famity contained two or more children of the same sex within the same age group the: avemage expenditure was taken. The following table shows the relative expenditures, that of the husband beings taken as 100 .


Male children during the early years of life appear to have more spent on them than female children, and it will also be noticedithat the cost of the clothing of a grown-up daughter is greater than that of a grown-up son, and that both are greater than that of the mother but less than that of the father. Burmese people seem to be different from most other races in that the men like to dress themselves up in fine clothes just as much as, if not more than, the women.

## (v) Expenditure on Rent.

59. The average expenditure per family on rent is Rs; 7-14-3: There is considerable variation in the rents paid by Burmese working class families in Rangoon. Some families live in very inferiot quartere and pay less than a rupee per month while others pay Rs: 20 or more. In some quarters rents are very high and if a workman has tolive in such a quarter in order to be near his work he must pay the rent demanded or incur a large expenditure on travelling. In order to reduce expenses Burmese families often join together and share a room. But though over-crowding exists to a certain extent among Burmese families it is not to be compared with the over-crowding which exists in the registered lodging-houses occupied by the Indian labourers. About 9 per cent. of the families live in their own houses; about 15 per cent. in free quarters provided by employers and the remaining $76^{\circ}$ per cent. iit ${ }^{\prime}$ rented houses.

## (vi) Expenditure on Fuel and Lighting.

60. The expenditure on fuel and lighting is mainly on firewood and kevosene oil. There appears to be no expenditure on charcoal. Electric light is used in very few working class families. Matches and candles are included under "other fuel and lighting". The expenditure on this group is about 5 per cent. of the total expenditure and this percentagedoes not vary much from one income class to another.

## (vii) Expenditure on Howsehold Requisites.

61. Although expenditure on household requisites amounts only to about $2 \frac{1}{2}$ per cent. of the total expenditare it has been given separately for purposes of comparision with budget enquiries in other countries. The most usual items are mats (usually thin), blankets (cotton), pillows, cooking pots and furniture, but the expenditure.is very small in. each case. Only one family in 16 uses cots or charpoys and about 2 in 5 , mattresses. Sheets are usually made of longcloth and are used in a little more than half the families. Mosquito nets are made of longcloth or mull ; netting is very rarely used partly because it is too expensive, and partly because a thicker material is often preferred. Nets are used in a little more than half the families.

## (viii) Expenditure on Miscellaneous Items.

62. This group includes all items not falling under the other groups. The expenditures per family and per unit are given in Tables VI and VII and the expenditure per family purchasing in Table $\mathbf{X}$. Soap is used by practically all families and about three out of four families engage a $d h o b i$ (washerman). There is no expenditure on liquor. In some Burmese families liquor is consumed but the investigators could never get them to admit it, and it was therefore omitted from the budgets. The most important item of expenditure in this group is tobacco, the average expenditure per family being Rs. 2-6-5, of which Rs. 1-12-4 is spent on Sebawleik alone. Sebawleik are smoked in practically all families, cheroots in about one family in four, but only one family in 16 smokes cigarettes. Most of the families spend money on betel, the average per family being Rs. 0-12-0. Hair oil is used in nearly all families.
63. The figure for interest on debts is not reliable as it was sery difficult to get accurate information. It includes the difference between the credit and cash prices paid for commodities. Burmese families do not mind much being in debt ; in fact, many of them prefer to pay credit rather than cash prices (involving payment of higher prices) even when they have the ready money to pay cash.
64. Expenditure on medicines was found in about 14 per cent. of the families, the average being Rs. 0-1-9 per family and Rs. $0-12-8$ per family incurring expenditure on them. Most of the large industrial establishments supply medicines free and there are also Corporation and other dispensaries from which free supplies may be obtained.
65. Expenditure on education was found in only, about 12 per cent. of the families. Apparently in many of the other families the expenditure incurred was very small and was therefore not shown separately,
66. In about 30 per cent of the families expenditure had to be incurred on travelling to and from work, the average being Rs. 0-14-5 per family, and Rs. 2-15-8 per family incurring expenditure.
(b) Indian Single Budgets.
(i) Income and Expenditure.
67. In the tables where averages have been given for different income classes Tamils and Uriyas have been included with Telugus. According to Table XI the average monthly income of the different races is as follows: Tamils Rs. 27-7-8. Telugus Rs. 28-14-10, Uriyas Rs. 35-0-3, Hindustanis Rs. 26-0-1, and Chittagonians Rs. 29-5-3.* Many of the Hindustanis, however, earn a considerable amount by lending money, but it was very difficult to get them to admit how much they earned in this way and as a rule these earnings were omitted by the investigators. The larger income of the Uriyas is due to the fact that they are usually found only in the better paid occupations. Many of them are skilled workers in dockyards, stone breakers, or tramway conductors or drivers.
68. The average monthly expenditure is as follows: Tamils Rs. 17-12-3, Telugus Rs. 19-11-10, Uriyas Rs. 20-2-8, Hindustanis Rs. 14-13-5, and Chittagonians Rs. 17-5-1. Tamils and Telugus save about a third of their income whereas Uriyas, Hindustanis and Chittagonians save more than 40 per cent. In each case about three quarters of this is remitted to India. The better paid Hindustanis, Chittagonians and Uriyas live on less than half their income. About 90 per cent. of the Tamils, Telugus and Uriyas, and more than 95 per cent. of the Hindustanis make remittances to India regularly (this is not shown in the table).
(ii) Percentage Expenditure on Groups.
69. The percentage expenditures on the groups are as follows :Percentage Expenditure on Groutps.

| Race. |  | Percentage expenditure on |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Food. <br> (2) | Cluth ing. <br> (3) | Rent. (4) | Fuel and Lighting <br> (5) | Household Requisites. (6) | Miscel- laneous. <br> (7) |
| Tamils | $\ldots$ | 54.0 | 59 | $7 \cdot 4$ | 50 | $2 \cdot 3$ | $25 \cdot 4$ |
| Telugus ... | ... | 53.6 | 6.2 | $7 \cdot 4$ | 47 | 2.0 | 26.1 |
| Uriyas | ... | 51.2 | 67 | 79 | 48 | 21 | 27.3 |
| Chittagonians ... | , | 61.0 60.0 | 9.4 9 | ${ }_{7}^{102}$ | 59 46 | 2.6 | ${ }_{16.9}$ |
| Chingomans ... | ... |  |  |  |  |  |  |

[^9]
## ( 20 )

Perkiaps flie most striking feafure of this table is the vety much greater percentage expenditure on miscellaneous items by Tamils; Telugus and Uriyas. This is mainly accounted for by the large expetiditure by these races on liquor, tobacco and betel which amounts to 14 per cent. 16 per cent, and 12 per cent. respectively of the total expenditure. The percentage expenditure by Hiditustanis on miscellaneous items is only $10^{\circ} 9$, most of them being of an economical turn of mind. As regards Engel's "laws" (see paragraph 40) it will be seen fromi Table XI that for all races as the income rises the percentageexpenditure on food decreases; that on miscellaneous items increases; and that on household requisites remains about the same. But thepercentage expenditures on the other groups do not conform to Engel's. "laws" : that on fuel and lighting decreases and that on rent increases. for all races as the income rises, whereas for clothing it decreases for the Tamils, Telugus and Uriyas and Hindustanis but increases for the Chittagonians.

## (iii) Expenditure on Food.

70. The average quantity and cost of food consumed per month aregiven for the different income classes in Table XII. The average quantity and cost for all incomes for Tamils, Telugus and Uriyas. separately are given in Table XV. For all incomes the averagemonthly expenditures are as follows: Tamils Rs. 9-9-6, Telugus. Rs. 10-9-3, Uriyas Rs. 10-5-4, Chittagonians Rs. 10-6-3, and Hindu stanis only Rs. 9-0.9.
71. When Tamils, Telugus and Uriyas are taken together the average quantity of rice consumed increases from 10.52 viss in the lowest income class to 14.23 viss in the highest, the average for all incomes being 1210 viss (Table XII). The average quantities for all: incomes for each race separately are as follows: Tamils $11^{\prime} 72$ viss, Telugus 1207 viss and Uriyas 1277 viss (Table XV). About a viss of pulses, usually arhar dhal; a viss of fish (frestr or salted) and half a viss. of meat are consumed every month by each of these races. The kinds. of meat ordinarily consumed by Tamils are goat mutton ( 33 viss) and fowls ( 09 viss) ; by Telugus goat mution ( 28 viss), fowls ('18 viss) and beef ( 03 viss) ; and by Uriyas goat mutton ( 36 viss). Beef is eaten only by a few non-caste Telugus. The consumption of sesamum oil by Tamils and Telugus is about $\frac{1}{3}$ viss per month and by Uriyas only $\frac{1}{4}$ viss. as they also use mustard oil ( 08 viss). Thes expenditure on cups of tea is as follows : Tamils Rs. 0-15-5, Telugus Rs. 1-4-11, and Uriyas. Rs. 0-8-4. Uriyas often make their own tea. The other food bought: and consumed away from home is usually bread.
[^10]
## ( 27 )

72. The quantity of cereals consumed'by Hindustahis does not vary much in the different income classes: it amounts to 1186 viss in the lowest class and 1252 viss in the highest class, tie average for all inicomed being $122^{2}$ viss. It will be noticed that the consumption of rice decreases and that of wheat increases, as the income rises. In thehighest income class about equal quantities of nice and wheat are takeri; in the lowest class about 70 per cent. of the cereals consumed is rice. The monthly consumption of pulses; mostly arhar dhal, is about $2 \frac{3}{3}$ viss: A small amount of fresh fish is sometimes taken: Milk is consumed in the higher income classes, the quantity in the highest classbeing about 2 viss per month. Bothghee and mastard oil are used by Hindustanis. The quantity of ghee consomed increases from '24 vissin the lowest income class to ${ }^{\circ} 45$ viss in the highest class, the average for all incomes being 28 viss. The consumption of mustard oil is roundabout ${ }^{16}$ viss for all incomes. Hindustanis drink very little tea and no coffee and buy very little food from outside stalls.
73. The consumption of rice by Chittagonians is about 11 viss per month for all incomes. Pulses come to $1 \frac{1}{2}$ viss; moong dhat being the most popular. Fish is consumed, both fresh ( 129 viss) and salted ( 27 viss) and also meat ( 33 viss), mainly beef and fowls. Milk is taken only in the higher income classes. Mustard oil ( 28 viss) is the only oil used. The monthly expenditure on cups of tea comes to Rs. 1-6-10.
74. In Table XV, the averages for men purchasing the different articles of food are given. In this, and similar tables for the other groups, separate averages are given for Tamils, Telugus and Uriyas. It will be noticed that all Indians with the exception of about. 6 per cent. of the Hindustanis, eat rice. Wheat flour itself is purchased only by the Hindustanis (nearly 84 per cent. of them) but the other races take it in the form of bread bought at tea shops. Arhar dhal' is taken by all Indians with the exception of Chittagonians, about half of whom only take it. Tamils, Telugus and Uriyas do not often take theother kinds of dhal, but urad and chana are sometimes taken by Hindustanis. Nearly all the Chittagonians take moong. Refined sugar is usually taken only in cups of tea or coffee bought outside but a few Taniils, Uriyas and Hindustanis buy gur or refined sugar and make the tea or coffee themselves. About a quarter of the Hindustanis take fresh fish but practically all the men of the other races take fish, either fresh or salted. Some kind of meat is taken by practically all the Tamils, Telugus and Chittagonians and by about 80 per cent. of the Urigas but only by about 10 per cent. of the Hindustanis (this is not shown in the table). The Hindustanis who do take meat are all Mahomedans. Tamils and Telugus usually take mutton or fowls, and Chittagonians beef or fowls, but Uriyas take only mutton, About aquarter of the Uriyas buy fresh milk, the average quaritity consumed by those taking it amounting to about $2 \frac{1}{3}$ viss per month. Aboitt 10 per-
cent. of the Hindustanis and 5 per cent. of the Tamils also buy it. A - certain amount of milk is taken by all races in cups of tea or coffee purchased outside. Ghee is taken by most Hindustanis ( 87 per cent.) and by about 18 per cent. of the Uriyas but not by the other races. Potatoes are taken by all Indians, and onions by all but Hindustanis. - Only about half of the Hindustanis take onions. As regards vegetable -oils all Tamils and Telugus use sesamum oil only and all Chittagonians mustard oil only. Uriyas, however, use both sesamum oil (about 70 per .cent. of them) and mustard oil (about 30 per cent.). A little more than 80 per cent. of the Hindustanis use mustard oil but most of them also use ghee. All races except Hindustanis spend a fair amount on food consumed away from home, the greater part being on cups of tea.
75. The gross calories consumed per day by the Indian races and the articles from which they are obtained are given in the following table :-
Gross Calories consumed per day by the Indian Races and the Artales from which they are obtained.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Commodity.

(1)} \& \& \multicolumn{10}{|c|}{Gross calories consumed per day by} <br>
\hline \& \& \multicolumn{2}{|l|}{Tamils.} \& \multicolumn{2}{|l|}{Telugus.} \& \multicolumn{2}{|l|}{Uriyas.} \& \multicolumn{2}{|l|}{Hindastanis.} \& \multicolumn{2}{|l|}{Chitlagonians.} <br>

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161 \\
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\end{aligned}
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\] \&  \& \[

$$
\begin{gathered}
\dot{\Delta} \\
\text { (10) }
\end{gathered}
$$
\] \&  <br>

\hline Rice \& $\cdots$ \& 2,261 \& $74 \cdot 2$ \& 2.329 \& 723 \& 2,464 \& \& 1.453 \& 455 \& 2,122 \& 1.6 <br>
\hline Wheat four \& \& 79 \& $2 \cdot 6$ \& 147 \& 4.6 \& 84 \& 25 \& 900 \& 28.3 \& 142 \& 48 <br>
\hline Pulses \& ... \& 206 \& 6.8 \& 200 \& 62 \& 209 \& 63 \& - 449 \& 14.1 \& 272 \& 9.2 <br>
\hline Fish \& \& 41 \& 13 \& 45 \& 14 \& 44 \& 13 \& 7 \& $\cdot 2$ \& 62 \& 2-1 <br>
\hline Meat ... \& ... \& 47 \& 15 \& 53 \& 17 \& 43 \& $1 \cdot 3$ \& 5 \& $\cdot 2$ \& 35 \& 12 <br>
\hline Mill \& \& 26 \& 9 \& 29 \& - 9 \& 36 \& 1-1 \& 15 \& $\cdot 5$ \& 31 \& 11 <br>
\hline Sugar and gur \& ... \& 68 \& $2 \cdot 2$ \& 73 \& 2-3 \& 75 \& $2 \cdot 3$ \& 45 \& $1 \cdot 5$ \& 75 \& 2.5 <br>
\hline Ghee ... \& \& \& \& \& \& 25 \& -8 \& 142 \& $4 \cdot 5$ \& \& <br>
\hline Vegetable oils \& \& 162 \& 53 \& 172 \& $5 \cdot 4$ \& 107 \& 51 \& 81 \& 25 \& 142 \& 48 <br>
\hline Fruit and vegetables \& \& 160 \& 5.2 \& 166 \& $5 \cdot 2$ \& 151 \& 46 \& 87 \& 2.7 \& 81 \& 27. <br>
\hline Total \& ... \& 3,051 \& 100 \& 3,215 \& \& 3,298 \& 100 \& 3,184 \& 100 \& 2,962 \& 100 <br>
\hline
\end{tabular}

The calories from cups of tea and coffee have been distributed ;between milk and sugar. Other food bought and consumed away from home is usually bread in the case of Telugus, Tamils, Uriyas and Chittagonians, and sweet drinks of various kinds in the case of Hindustanis. The calories have been distributed accordingly. Fruit and vegetables -were taken to contain 872 calories per ounce.
76. It will be noticed that in the case of Tamils, Telugus, Uriyas and Chittagonians a little more than 76 per cent. of the calories are .obtained from cereals, while for Hindustanis the percentage is about $\overline{7} 4$.

The corresponding percentage for Burmese families is 73 (see paragraph 50). The percentage of calories obtained from pulses is: between 6 and 7 for Tamils, Telugus and Uriyas, but for Chittagoniansit is about 9 and for Hindustanis about 14. For Burmese families the percentage is only $2 \%$. The percentage of calories from meat and fish is roundabout 3 for all races except Hindustanis, for whom it is only 4 . For Burmese tamilies the percentage is 7.
77. Uriyas consume the greatest number of calories 3,298 , followed by the Telugus with 3,215 and the Hindustanis with 3,184 . Tamils arenext with 3,051 and Chittagonians last with 2,962 . These compare not unfavourably with the number consumed by prisoners in jails (see paragraph 51).
78. The gross calories of protein, carbohydrate and fat consumed ${ }^{\text {f }}$ per day are given in the following table :-

Gross Calories of Protein, Carbohydrate and Fat consumed per day by the Indian Races.


It will be noticed that a yery small percentage of calories is obtained from foods of animal origin, and that this percentage increases as the income increases. The percentage of calories from protein is rather Low. In the case, of Tamils, Telugus and Uriyas the total number of calories increases from 2,690 in the lowest income class to 4,040 in the highest class. ,For Hindustanis the corresponding figures are 3,040 and 3,473, and for Chittagonians $2 ; 878$ and 3,390 .
79. The number of calories obtained for a rupee by the different Indian races is as follows: Hindustanis 10,556, Uriyas 9,572, Tamils 9,539, Telugus 9,117 and Chittagonians $\mathbf{8 , 5 5 5}$. The number is greatest in the case of the Hindustanis mainly because they eat very little meat or fish which are expensive foods, and they buy yery little made-up food from shops or hawkers.
80. It will be noticed that in all cases only gross calories have been given. No attempt has been made to estimate the number of calories assimilated. It is understood that the percentage of calories absorbed depends on the nature of the diet and also on the nature of the individual. For instance, McCay* found that when 20 ounces of rice were consumed per day (about 10.42 viss per month) 64 per cent of the total protein was absorbed, but when 26 ounces of rice were consumed per day (about 13.54 viss per month), the dhals and vegetables remaining the same, only 5377 per cent. was absorbed.
81. The caloric value of food is not of course the only measure of its nutritive value. It was originally intended that the calcium, phosphorus and iron content and the vitamin value should also be given. But for some of the foodstuffs this information was not available in the Harcourt Butler Institute of Public Health and it was therefore decided not to draw any conclusions regarding the diets of the different races from insufficient data. This might perhaps be done later by the Harcourt Butler Institute of Public Health.

## (iv) Expenditure on Clothing.

32. The average monthly expenditure on clothing is as follows Tamils Rs 1:U-9, Telugus Rs. 1-3:7, Uriyas Rs. 1-5-9, Hindustanis Rs. 1-6-4, and Chittagonians Rs. 1-10-11 (see Table XI). The average monthly expenditure of a Burman on clothing is Rs. 2-6-0 (see Table V).
33. It will be seep from Table XVI that dhotis are worn by practically all Tamils, Telugus, Uriyas and Hindustanis. Ohittagonians wear longyis. Abqut 75 per cent. of the Tamils, about 18 per cent. of

[^11]the Telugus and about 3 per cent. of the Hindustanis also wear longyis. About 50 per cent of the Chittagonians, but hardly any of the other races wear short pants or trousers About half of the Tamils, Telugus and Chittagonians but more than 80 per cent. of the Uriyas and Hindustanis wear banians or bandis. Shirts or half shirts are worn by practically all labourers. Coats appear to be worn by more than 80 per cent. of the Uriyas, the percentages for the other races being as follows:Chittagonians 51, Hindustanis 43, Telugus 31 and Tamils 20. Upper cloths are worn by nearly all ramils, Telugus and Uriyas who also use them as a head dress. Very few Hindustanis use upper cloths and Chittagonians never use them. Hindustanis usually wear a cap, pagri or turban, but about 30 per cent. of them do not wear any head dress at all this is not given in Table XVI). Practically all Chittagonians wear caps. Tamils, Telugus and Uriyas usually go bare footed but a few Telugus wear sandals. About 70 per cent, of the Hindustanis and Chittagonians wear shoes. Wooden sandals are worn by about twothirds of the Chittagonians and by about one-third of the Hindustanis. Leather sandals are occasionally worn by Chittagonians.
84. Dhotis are usually made of grey shirting but red shirting and mull are occasionally used by Tamils, Telugus and Uriyas. Longyis are invariably made of woven sarong. Banians are nearly always of Japanese make. Shirts and half shirts are often made of twill, usually khaki, but longcloth is also used, particularly by Hindustanis and Chittagonians, and fancy shirtings are not uncommon. Coats are either made of drill (khaki or white) or of some check material. The upper cloths of Tamils, Telugus and Uriyas are usually grey or red shirting but mull is also used. Hindustanis' pagris are usually made of longcloth and their caps of longcloth or serge. Chittagonians' caps are made of serge, fez, longcloth, mull and very occasionally сапе.

## (v) Expenditure on Rent.

85. The average monthly expenditure on rent is as follows: Chittagonians Rs. 1-4-10, Tamils Rs. 1-5-1, Telugus Rs. 1-7-3, Hindustanis Rs. 1-8-2 and Uriyas Rs. 1-9-4 (see Table XI). About three-quarters of the Hindustanis and Chittagonians, half of the Tamils and Telugus and a third of the Urivas live in free quarters supplied by employers, while about 4 per cent. of the Tamils but less than 1 per cent. of the other races have their own houses. In these cases the rents had to be estimated. The remainder lived in rented buildings, usually the lodging houses registered by the Corporation. The appalling conditions under which they live in these registered buildings is discussed in paragraph 239. An attempt was made at the beginning of the enquiry to obtain the number of square feet per ipdividual, but this had to be discontinued as it was impossible to obtain reliable figures.
(vi) Expenditure on Fuel and Lighting.
86. This is mainly on firewood and kerosene oil and is less than a rupee per month (see Table XIV). In the saw mills free supplies of firewood are often given. Electric light is sometimes provided free by the employer or landlord and this accounts for the small expenditure on this item. Matches are included under " other fuel and lighting."
(vii) Expenditure on Household Requisites.
87. The expenditure on household requisites amounts to about 6 annas per month or just over 2 per cent. of the total expenditure. The usual articles are a charpoy or mat, a blanket, and a few cooking pots. Pillows and sheets are sometimes used. Practically all the Chittagonians use pillows. The furniture is usually a box. Mosquitonets are hardly ever used.
(viii) Expenditure on Miscellaneous ILems.
88. The main items of expenditure in this group are liquor (Tamils, Telegus and Uriyas only), tobacco and betel. The average monthly expenditure on these three items by the different races is as follows: (see Table XVII).

Average Monthly Expenditure on Liquor, Tobacco and Betel.

| Article. |  |  | Tamils. | Telugus. | Uriyas. | Hindustanis. | Chittago nians. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rs. A. P. | Rs. A. P. | Rs. A. F. | Rs. A. P. | Rs. A. P. |
| Liquor | *** | ... | $\begin{array}{lll}1 & 7 & 5\end{array}$ | $\begin{array}{ccc}2 & 0 & 7 \\ 0 & \end{array}$ | 0155 | $0 \begin{array}{lll}0 & 0 & 1\end{array}$ |  |
| Tobacco | ... | ... | 0811 | 0 0 129 | 01110 | 086 |  |
| Betel | ... | ... | 0811 | 048 | 01111 | 038 | 097 |

89. Expenditure bas been given separately in the tables for foreign liquor and country liquor. Foreign liquor has been taken to include whisky, brandy and beer, whether imported or made locally, and country liquor the rest. Some of the workers were not inclined to admit expenditure on liquor and it is probable that the expenditure on this head is greater than that given in the table. It will be noticed that Telugus spend most on liquor. Their favourite drink is hlawaye (peye) but toddy, brandy (mostly imported) and beer (both Mandalay and imported) are also consumed in fair quantities. Shamshu (country spirit) is taken occasionally. The large expenditure on liquor by Telugus is not surprising. Most of the hard manual work in Rangoon is done by them and when their work is over they are often too tired to take ordinary food. Bad housing conditions, no home life, and the absence of any healthy recreation are also factors. Tamils, like Telugus, prefer

Hawzaye but beer (usually Mandalay) and toddy are also very popular. Shamshs and brandy are taken only accasionally. The favourite drink with Uriyas is brandy, usually imported, but beer (Mandalay) and occasionally taddy are also taken. Most of these Uriyas came from the Ganjam district in the Madras Presidency and they appear to have contracted the drinking habit from their Telugu neighbours in the Vizagapatam district. They also come into close touch with the Telugus in the factories in Rangoon. About half of the Tamils and a third of the Telugus and Uriyas did not incur any expenditure on drink. (this is not shown in the table).
90. Tobacco is both smoked and chewed by the Indian races. In the case of the Telugus their expenditure on tobacco is mainly for cheroots but a small amount of tobacco is also chewed. About two thirds of the expenditure of Tamils on tobacco is for cheroots, the remainder being divided between bidis ${ }^{*}$ and tobacco which is chewed. Nearly two-tbirds of the expenditure of Uriyas is also on cheroots, mosi of the remainder being on sukha, which is a preparation of tobacco and. spices and is chewed. Bidis are occasionally smoked by Uriyas About two-thirds of the tobacco bought by Hindustanis is chewed, usually with lime but sometimes as sukha. The remainder is smoked. usuallv in the form of a paste which is a mixture of tobacco and jaggery, but bidis are also occasionally smoked. The tobacco bought by Chittagonians is usually for smoking: the paste used by Hindustanis is the usual form but bidis are also smoked. A certain amount of tobaccois often supplied free with betel. Less than 5 per cent. of the Telugus and Chittagonians, about 10 per cent. of the Tamils and Uriyas but about 70 per cent. of the Hindustanis did not incur any expenditure on tobacco.
91. As regards the figure for interest on debts, most of the coolies employed by maistries (contractors) obtain advances from the maistries, but no interest is said to be charged on these loans. Various deductions are made by maistries from the wages of the coolies (see paragraph 193). but the coolies do not know exactly how much is deducted or for what purpose. The income of these coolies has therefore been taken to be the amount received from the maistry after all deductions had been made. In these circumstances it was not possible to enter under expenditure in the budget form any amount as interest on debts. The fgure given in the table represents the inferest paid voluntarily by workers on debts contracted from persons other than maistries. Since a large proportion of the Tamil and Telugu workers are maistry coolies this figure gives no indication of the extent of their indebtedness. The proportion of Uriyas employed under maistries is not so great.

[^12]92. Expenditure on religious festivals has been included in the budget as the festivals are regular in character and the amount spent every year can be roughly estimated. Both Hindu and Mahomedan festivals are accompanied by feasting and, in the case of Telugu workmen, by drinking also. Some expenditure is also incurred by Hindus on fruits, flowers, incense, etc., and clothing is sometimes bought and given to the priests. Practically all the working class Tamils, Telugus, Uriyas and Hindustanis in Rangoon are Hindus; Chittagonians are invariably Mahomedans. All races buy new clothes at festival times, if they can afford them, but this expenditure has been included under clothing. Expenditure on marriages and funerals has not been included in the budget as it is not incurred regularly.
93. Although the amounts spent on marriages and funerals were not entered as expenditure in the budget form, this information was collected when available. Except in the case of Tamils, marriages among the Indian working classes in Rangoon do not often take place. A Tamil earning about Rs. 30 a month ordinarily spends about Rs. 200 when he gets married. About half of this is spent on ornaments and clothing and the remainder on feasting and on processions. As regards funerals, in addition to the burial or cremation charges money is also spent on the subsequent ceremones and feasting. The priests have also to be paid something. Tamils usually spend a large amount on processions to the cemetery. About Rs. 50 is an ordinary amount to be spent on a funeral by the Indian working classes in -Rangoon but as much as Rs. 150 is not uncommon.

## (c) Tamil and Telugu Family Budgets.

94. A few family budgets were collected from Tamils and Telugus and the information tabulated. Only averages per family have been given, and since the single budgets of these races have already been discussed in some detail it is not proposed to say much about these family burgets.
95. It will be noticed from Table XVIII that the size of the family in each case is small. For Tamil families the average income of the family is Rs. 41-4-9, of which Rs. 5-8-2 or about 13 per cent. is earned by women, and practically nothing by children. For Telugu families the average income of the family is Rs. 45-5-10, of which Rs. 7-2-11 or 16 per cent is earned by women and Rs. 0-12-4 or nearly 2 per cent. by children. All Tamil and Telugu men are earners, their average earnings being Rs. 35-11-9 and Rs. 37-6-8 respectively, which are higher than the average earnings of the single men. The average earnings of the Tamil and Telugu earning women are Rs, 13-1-8 and Rs, 15-9-8 respectively. The main sources of
income of Tamil women are the carrying of coal and paddy. Telugu women, on the other hand, rarely engage in hard manual labour : their earnings are usually obtained by selling cheroots, pickles, firewood, etc. The average earnings of working Telugu children are Rs. 8-3-8. About 35 per cent. of the Tamil women and 45 per cent. of the Teluga women are earners.
96. Tamil families manage to save 13 per cent. and Telugu families 15 per cent. of the monthly income, but while Tamil families remit to India less than 2 per cent. of their income Telugu families remit just over 8 per cent. About 10 per cent. of the Tamil families but more than 40 per cent. of the Telugu families make regular remittances. The reason for this difference is that the Telugu families are often only of a temporary nature, the woman being the mistress of the man who may also have a wife and family in India to support.
97. The percentage expenditures on food and miscellaneons items are greater and less, respectively, than the corresponding percentages in the case of the single budgets.
98. The expenditure on clothing for Tamil women is about 87 per cent. and for Telugu women about 93 per'cent. of the expenditures for the men (see Table XX). These are much higher percentages than for Burmese women (see paragraph 55). Practically all Tamil and Telugu women wear saris. Longyis and upper cloths are also worn by Tamil women, especially when at work carrying coal or paddy, but not so much by the Telugu women, who, as stated already, do not ordinarily engage in manual labour. Bodices or jackets are usually worn by Tamil women but only by about two-thirds of the Telugu women.

## (d) Indlan Occupational Budgets.

99. A few occupational budgets (single men's) of the Indian races are given in Tables XXII-XLI. It will be noticed that among the Telugus the handcart pullers consume the greatest quantity of rice, namely 1736 viss per month, bag carriers in rice mills coming next with 1502 viss, then Corporation coolies with 13.33 viss, and then cargo boatmen and rickshaw pullers with $12 \% 75$ viss and 1271 viss respectively. Many of the Teiugus spend considerable sums on liquor and cups of tea. For instance, the average monthly expenditure of handcart pullers (Table XXIV) on liquor is Rs. 6-9-9 and on cups of tea Rs. 2-8-11 : aboat 30 per cent. of the total expenditure is spent on these two items. Stevedore and wharf coolies (Table XXVII) spend on an average Rs. 3-12-5 on liquor and Rs. 2-8-11 on cups of tea; and rickshaw pullers (Table XXVIII) Rs. 2-1-10 on liquor and Rs. 3-0-8 on cups of tea. Rickshaw pullers spend more on tea than any other

## ( 36 )

class of worker. It keeps them going long after they are tired outHlawzaye (peye) and toddy are the favourite drinks with Telugus but when they can afford it brandy and beer are also taken. For instance, practically all handcart pullers take brandy and most of them beer also. Stevedore and wharf coolies also take brandy in fair quantities.
100. Only two occupational budgets for Tamils have been given, namely for paddy carriers and coal carriers. Paddy carriers (TableXXIII) consume 1119 viss of rice and spend Rs. 1-7-4 on cups of tea and coffee and Rs. 0-13-11 on liquor. Coal carriers (Table XXII) consume 1252 viss of rice and spend only Rs. 0-8-7 on cups of tea and coffee but Rs. 1-8-3 on liquor. Coffee appears to be taken only by Tamils. The liquor taken by the paddy carriers is usually toddy or hlawzaye. (peye) and by the coal carriers beer, hlawzaye and sometimes shamshu.
101. Three occupational budgets have been given for Uriyas. Theskilled factory workers (Table XXXIII) consume $13^{\prime} 16$ viss of rice, the unskilled (Table XXXV) 1119 viss and the tramway workers (TableXXXIV) 1188 viss. It will be noticed that there is no expenditure on liquor by the tramway workers. They appear to stick to the rules of their caste more closely than the majority of Uriyas in Rangoon.
102. In the Hindustani budgets (Tables XXXVI-XXXVIII) it will be noticed that the durwans and peons consume much more wheat but less rice than the factory workers or gharrywallas. There is no expenditure on liquor and very little on cups of tea.
103. In the case of the Chittagonian budgets (Tables XXXIX—XLI)the tindals being much better paid spend a little more on meat, milk and; cups of tea, but otherwise they eat practically the same things as the oilmen and firemen. Tindals also spend more on clothing. There is no expenditure on Hquor in these Chittagonian budgets.
104. A table showing the gross calories consumed per day by men in these occupations is given below:-

## Gross Calories of Protein, Carbohydrate, and Fat consumed per day by Indian Races in certain occupations.



- Other than durwans and peons.


# Section B.-Supplementary Burmese EnQuiry. <br> <br> 1.-Introduction. 

 <br> <br> 1.-Introduction.}
105. In most branches of human activity estimates and forecasts have to be made. The business man is continually making estimates, and the more accurate his estimates are the more likely is he to succeed in his business. He must also make forecasts of future business conditions, such as the probable course of prices, probable production and probable demand. These forecasts are, as a rule, based on statistics of various kinds, but until comparatively recent years not only were these statistics very incomplete but the interpretation of them was of a very unsatisfactory and unscientific nature. Recently, however, attempts have been made in different countries* to provide business men with indices which areintended to help them in forecasting future business conditions. The need for such indices is obvious, since the severity of trade fluctuations is due in large part to lack of adequate foresight. $\dagger$ These indices havebeen constructed by using modern statistical methods, and it may be said that the value of statistical technique is due largely to its practical utility in making such estimates and forecasts.
106. An interesting example of the application of statistical methods to the making of estimates is furnished by a family budget study. The distribution of expenditure on the different groups, such as food, rent, clothing, etc., varies according to the income and size of the family, and the problem is to obtain estimates of the amounts which a family of a given size and with a given income will spend, on the average, on these different groups. Since many technical terms have had to be introduced in this enquiry which the non-mathematical reader might have difficulty in understanding, it was decided to separate this from the main budget enquiry. At the same time an attempt has been made to explain these: technical terms in the hope that the reader with a slight knowledge of mathematics will be able to follow the argument. These explanations. are necessarily brief and somewhat scrappy, and for a fuller under: standing reference must be made to any recognised work on statistics.

[^13]
## 2.-Selection of Budgets and Collection of Information.

107. The budgets used for this study were selected from those used in the main enquiry, but in order that the sample should be fairly homogeneous certain restrictions were placed on the type of family selected. For instance, all the families lived in rented houses and consisted of at least a husband and wife, but with no other members except children. Further, the husband was in receipt of a regular income and the total monthly income of the family was less than Rs. 100.
108. In order that the information should be as accurate as possible it was desirable that the monthly expenditure on the different articles should, as far as possible, be based on daily records of the expenditure actually incurred during each day of the month, and not merely on estimates supplied by a member of the family. The manner of collecting the information has been explained in paragraphs 22 and 23 of the main enquiry. Investigators visited the families daily for a month and noted down the income received and expenditure incurred during the previous day. Accurate information was in this way obtained of the expenditure on food, fuel and light, rent and items in the miscellaneous group, and this expenditure amounted on the average to more than 85 per cent. of the total expenditure. The income of the husband was usually obtained accurately, but in a few cases the overtime pay varied a great deal from one month to another and had to be estimated. The earnings of the wife as bazaar seller, cheroot roller, etc., were also obtained with fair accuracy. The earnings of the children as a rule were small.
109. The following is a list of the variables used :-
$X_{1}=$ Monthly income of the family in rupees, and includes earnings of wife and children, gifts, and the value of any concessions.
$X_{\mathbf{2}}=$ Size of family as measured in units. The Lusk coefficients based on food requirements were used (see paragraph 29).
$X_{3}=$ Surplus, i.e. the difference between the monthly income and expenditure. A deficit has a minus sign.
$\mathrm{X}_{1}=$ Percentage of total expenditure spent on food.
$X_{6}=$ Percentage of total expenditure spent on fuel and lighting.
$X_{0}=$ Percentage of total expenditure spent on rent. It includes any expenditure on a waterman.
$X_{y}=$ Percentage of total expenditure spent on clothing.
$X_{6}=$ Percentage of total expenditure spent on household requisiteś.
$X_{9}=$ Percentage of total expenditure spent on miscellaneous items. All items not ncluded in the previons groups are included in this group.
$\mathbf{X}_{10}=$ Percentage of total expenditure spent on husband's
clothing.
$X_{n}=$ Percentage of total expenditure spent on wife's clothing.
$\mathbf{X}_{1 \mathbf{y}}=$ Percentage of total expenditure spent on children's
clothing.
$X_{y s}=$ The total expenditure on clothing for the family divided
by the expenditure on the husband's clothing. This
was taken in order to see whether the Lusk scale of
food requirements is a reliable measure of clothing
requirements.
110. For the purpose of making the various calculations the data had to be classified. Table A (page 51) shows how this was done. In this table the classification is according to income and size of family. Similar tables were drawn up between (a) the income and (b) the size of the family and each of the variables $\mathrm{X}_{4}, \mathrm{X}_{\mathbf{n}}$, etc.

## 3-Estimates.

11f. As explained in paragraph 106 the problem is to obtain estimates of $X_{4}, X_{1}$, etc., in terms of $X_{i}$ (income of family) and $X$, (size of family). Three prelimirary estimates will first be obtained, one based on the arithmetic mean, another on the income of the family only and another on the size of the family only. The method of obtaining these estimates will be explained in connection with the percentage expenditure on food.
112. The 250 values for the percentage expenditure on food obtained from the 250 families form what is called a frequency series, or, if the values are distributed into classes, a frequency distribution. The essence of a distribution can be expressed in three or four significant measures. The most important measure is an average of the distribution. There are many averages, such as the mode, median, geometric mean, etc., but the arithmetic mean is perhaps the most useful single average. After finding an average it is generally advisable to determine the extent to which the values are scattered about the average, i.e. a measure of scatter or dispersion is needed. In the case of normal" or approximately

[^14]nommal distributions the standard devialion is usually taken. It is obtained by adding the squares of the deviations from the arithmetic mean, dividing the sum by the number of values, and then taking the -square root.
113. It should be noted that the sum of the deviations from the arithmetic mean is zero, and that the sum of the squares of the deviations from the arithmetic mean is less than the sum of the squares of the deviations from any other point." It is because the arithmetic mean possesses these properties that it is usually taken as the most probable value of a normal or approximately normal distribution. If an estimate is based on the arithmetic mean, the standard deviation may suitably be regarded as a measure of its reliability as an estimate. For if the standard deviation is small a large percentage of values will fall close to the arithmetic mean, and an estimate based on it could then be considered a reliable one. If the standard deviation is known the approximate number of values falling within any given distance of the mean can be calculated, assuming, of course, that the distribution is approximately normal. For instance, in the distribution of the percentage expenditures on food the arithmetic mean is 53.34 and the standard deviation $51^{\circ} 19 \dagger$. If it were a perfectly normal distribution 68.26 per cent. or 171 out of the 250 percentages would fall between the $53.34-5.19$ and $53.34+519$, i.e., between 48.15 and 58.53. In other words, the chances would be :about 2 to 1 that any percentage taken at random would fall within these limits. Actually the number of percentages which falls within these values is 173 .

## 4.-An Estimate based on the Income of the Family.

114. When the arithmetic mean is taken as an estimate of the percentage expenditure on food no account is taken either of the income or of the size of the family. Since, however, the distribation of expenditure of a family varies according to its income and size it would be reasonable to expect an estimate based on either the income or the size of the family to be more accurate than one obtained without taking these into account.
115. In Chart A i-called a scatter diagram-the percentage expenditure on food has been plotted against the income. It will be noticed from the distribution of the dots that there is a tendency for the

[^15]percentage expenditure to fall as the income rises. It would be possible; without making any calculations at all, to draw a straight line running through the middle of the distribution which would give roughly theaverage relation between the two variables. The straight line actually shown in the chart has been so determined that the sum of the squares of the distances (measured parallel to PL) of all the points from the line, is a minimum," i.e., if any other line were drawn the corresponding sum. would be greater, It is called a line of regression. The average percentage expenditure on food corresponding to a given income can be read direct from this chart, or it can be obtained from the equations to this line-called the regyession equation-which is $\mathrm{X}_{4}=63^{\prime} 14-154 \mathrm{X}_{1}$. Thus if the monthly income ( $X_{1}$ ) is Rs. 55 , the percentage expenditure on food ( X, ) is $63.14-\left(55 \times{ }^{\prime} 154\right)=54.67$. If the income increases by Rs. 10 the percentage expenditure on food falls by about 11
116. The distances of the points from this line, measured parallel toPL, are called errors of estimate. If the sum of their squares is divided. by the number of them (250) and the square root taken the standara error of estimate or, more briefly, the slandard error is obtained. It corresponds to the standard deviation in the ease of an estimate based on the arithmetic mean, and is a measure of the reliability of an estimate based on the regression equation. Its value here is 473 , which, as one would expect, is less than the standard deviation $519 . \dagger$
117. The standard error measures the extent to which the values. actually conform to the estimate given by the regression equation. But this standard error is expressed in the same units as $X$, and it has been. found more convenient to have an abstract measure of this tendency, i.e., one which is independent of the particular units employed. Such a measure is the coefficient of correlation represented by the symbol " $r$. ." It is based on the ratio between the standard error and the standard. deviation. The coefficient of correlation between the percentage
expenditure on food $\left(\mathrm{X}_{4}\right)$ and income $\left(\mathrm{X}_{1}\right)$ is given by ${r_{41}^{2}}_{2}=1-\frac{\sigma_{4.1}^{2}}{\sigma_{4}^{2}} \ddagger$

[^16]118. In this equation the coefficient of correlation may beregarded as a function of the standard error $\sigma_{4 \times 5}$. If there is no dispersion at all about a line of regression the standard error is zero, $y^{2}=1$ and the regression equation describes a perfect relation between the two variables. The correlation is then said to be perfect. If, on the other hand, there is no regression equation, i.e., if no equation can be found which gives a standard error less than the standard deviation, *t then $r^{2}=0$, and the variables fluctuate in absolute independence of one another. The limits for $r^{2}$ are therefore 0 and 1. By correlation is. meant simply the tendency for two (or more) variables to vary together, i.e., a tendency towards concomitant variation. If two variables are correlated they may move in the same or opposite directions, i.e., high values of one variable may be associated with either high or low values of the other : the point is that they are not indifferent to one another $\dagger$. In practice $r$ has an intermediate value between -1 and +1 . The greater the numerical value of $r$ the greater the confidence that may be placed in the regression equation as an expression of the relation between the two variables.

## 5.-An Estimate based on the Size of the Family.

119. An estimate of the percentage expenditure on food in terms of the income of the family has just been given. A similar estimate can be obtained in terms of the size of the family. In this case the regression equation is $X_{4}=44 \cdot 18+2 \cdot 802 X_{2}$, the standard error is 460 and the coefficient of correlation is +460 . The standard error is here slightly less, and the coefficient of correlation therefore slightly greater. If the size of the family increases by one unit the percentage expenditure on food increases by 28. The variables are therefore positively or directly correlated.
120. These regression equations measure the relation between only two variables. In the estimate based on the size of family nothing is known about the income-it is simply ignored. But it may be asked : how is the percentage expenditare on food affected if the income increases and the size of the family remains constant, or if the size of the family increases and the income remains constant? This information is obtained by the method of partial correlation which will now be explained.
[^17]
## 6.-An Estimate based both on the Income and the Size of the Family.

121. The regression equations have been obtained by making the -sum of the squares of the errors of estimate a minimum. The actual process is as follows: the relation between the percentage expenditure on food and income is assumed to be of the form $X_{4}=a+b X_{1}$. The difference between the actual $X_{4}$ and the estimated one, namely $\mathbf{X}_{4}-\left(a+b \mathbf{X}_{1}\right)$, is obtainea for each of the 250 families. These differ-- ences, or errors of estimate as they have been called, are then squared and added. The sum is an expression in termis of $a$ and $b$. The quantities $a$ and $b$ are then chosen so as to make this sum a minimum. *The talues of $a$ and $b$ are then substituted in the equation $X_{8}=a+b X_{i}$, and :this gives the regression equation.
122. In exactly the same way an estimate can be made of the percentage expenditure on food in terms of both income and size of family. The equation is assumed to be of the form $\mathrm{X}_{1}=a+b \mathrm{X}_{1}+c \mathrm{X}_{\text {. }}$. As before the sum of the squares of the errors of estimate is obtained and $a, b$ and $c$ chosen so as to make this sum a minimum. The equation obtained in this way is $X_{4}=54^{\prime 7} 7-^{\circ} 210 X_{1}+3.652 X_{2}$. The standard error of estimate, $\sigma_{412}$ (the error when $X_{1}$ is estimated in terms of both $X_{1}$ and $X_{8}$ ) is 365 , and the coefficient of correlation-in this case called a coefficient of multiple correlation and represented by the symbol $\mathrm{R}_{412}$ is 711.7
123. It will be noticed that the standard error is smaller and the , coefficient of correlation greater than those obtained previously. The equation is an interesting one. It gives the average percentage of the . expenditure spent on food by a family of a given size and with a given income (between,Rs, 30 and Rs. 100). It will be seen that if the size of the family ( $\mathrm{X}_{2}$ ) is kept constant the percentage expenditure on food decreases about 2 per cent for every increase in income of Rs. 10, and -that if the income is kept constant the percentage expenditure on food increases about $3 \frac{1}{2}$ per cent. for an increase of one unit in the size of the family.

## 7.-Errors.

124. The regression equations, standard errors and coefficients of correlation for all the variables are given in Table B. These results have been obtained from a sample of only 250 budgets and the -question arises as to whether, if another sample of 250 budgets were taken, the same or different results would be obtained; and, if different -results, whether it would be possible to determine the approximate

[^18]limits to the fluctuations to be expected from different samples. Thedetermination of these fluctuations is one of the most important problems in practical statistics, since it is obvious that if these fluctuationswere large it would be impossible to generalise from such a sample. This process of drawing general conclusions from a sample-more properly called induction-is often employed in statistical work but the assumpr tions involved in the process are not always realised.
125. In order to determine these fluctuations it would be possible to take, say, a thousand different samples of 250 budgets each, and for each of the measures-such as a correlation coefficient or the coefficient of $X_{1}$ or $X_{2}$ in a regression equation-a frequency distribution could be formed of the thousand values so obtained. This distribution would probably approximate a normal distribution. The arithmetic mean and standard deviation of this distribution could then be calculated. This standard deviation would then serve as a measure of the fluctuar tions to be expected from successive samples.
126. But as a rule it is impracticable to take a large number of samples just for the purpose of calculating the standard deviations of the different measures. Fortunately, they can usually be calculated direct by other means. Thus it can be shown that in the case of a coefficient of correlation the standard deviation, or standard error as it is usually called, is, for a normal distribution, given by $\frac{1-\overline{2}}{\sqrt{N}}$, where $N$ is the number of pairs of values from which the coefficient is calculated. In Table B the coefficients of correlation have been given together with their standard errors. For instance, the coefficient of correlation between the percentage expenditure on food and income is given as $-410 \pm{ }^{\prime} 053$. In this expression ${ }^{\circ} 053$ is the standard error. Assuming an approximately normal distribution about two-thirds of the values would not differ from- 410 by more than ' 053 , and about 99 per cent. of the values would not differ from it by more than three times 053. For this reason, if a measure calculated from a sample is more than three, times its standard error it is usually taken to be "significant", which means that it is extremely improbable that it could be due to chance fuctuations of sampling." The partial correlation coefficients and partial regression coeffcionts are given, with their standard errors, in Table C $\dagger$

[^19]
## 8.-Results.

127. The different estimates obtained for $\mathbf{X}_{5} \mathrm{X}_{1}$. . . . . $\mathbf{X}_{10}$ together with the corresponding standard errors and coefficients of correlation are given in Table B. It is possible to tell from the estimates containing both $\mathrm{X}_{1}$ and X , what a family of any size and income (between Rs. 30 and Rs. 100) will spend on the average on the different groups. For instance, a family with an income of Rs. 60 and composed of hasband, wife and two children aged 8 and 4 would spend, on the average, Rs. $30-14-0$ on food, Rs. 3-3-0 on fuel, Rs. 7-14-0 on rent, Rs. 2-13-0 on the husband's clothing, Rs. 2-1-0 on the wife's clothing, Rs. 1-7-0 on the children's, Rs. 1-8-0 on household requisites, Rs. 8-9.0 on miscellaneous items and there would be a saving of Rs. 1-11-0. It will be noticed that in this family the cost of the wife's clothing is about three-quarters, and the children's clothing only one half, that of the husband's clothing.
128. It is also possible to tell from the estimates containing both $X_{i}$ and $X$, what adjustments will be made in the distribution of expenditure when the income changes and the size of the family is kept constant, or when the size of the family changes and the income remains unaltered. For instance, if the income is kept constant an increase in the size of the family leads to an increase in the percentage expenditure on food, but a decrease in the case of the other five groups. In the case of fuel and light and household requisites the decreases are very small. The percentage expenditure on children's clothing does actually increase, but it is more than counterbalanced by the decreases for the husband and wife. The changes in the percentage expenditure on the six main groups are shown graphically for a family with an income of Rs. 60 in Chart B.

- 129. If, however, the income increases and the size of the family remains the same, there is decrease in the percentage expenditures on food and fuel and lighting, but an increase in the surplus and in the -percentage expenditures on rent, clothing, household requisites and miscellaneous items. Miscellaneous items account for the greater part of the increase. It will be noticed that the percentage expenditure on the children's clothing increases at a slightly faster rate (021) than that on the husband's clothing (017) whereas that on the wife's clothing hardly alters ('005)* These results are shown graphically for the six maingroups of expenditure in Chart C. The family is composed of $\mathbf{3 . 0 3}$ mits, i.e., a husband and wife and children aged, say, 4 and 8 years.

[^20]130. The relation between $\mathbf{X}_{13}$ (total expenditure on clothing divided by the expenditure on husband's clothing) and $X$, (size of the family) is $X_{n}=82+534 X_{\text {, }}$ The object of obtaining this equation was to see if the Lask scale of food requirements is a reliable measure of clothing requirements. If the family is composed of only husband and wife $X_{3}=183$ and $X_{12}=180$. If, however, $X_{2}$ increases by one unit $X_{18}$ increases by only ${ }^{5} 534$, so that when $X_{7}=5, X_{13}=349$ only. The Lask scale of food requirements does not, therefore, appear to be a reliable measure of clothing requirements as far as Burmese working class families in Rangoon are concerned. As a matter of fact, the childrerr of such families during the first few years of life wear very few, if any, clothes. A scale showing the clothing requirements of Burmese persons of different age and sex is given in paragraph 58 of the main budget enquiry.
131. The following measures have not been given in the tables:-
$\mathrm{M}_{1}$ (average income of family) $=63.58 ; \sigma_{1}=1379$;
$M_{2}$ (average size of family) $=327 ; \sigma_{3}={ }^{\prime} 85$.
The lines of regression are-
$\mathrm{X}_{1}=50.35+4.041 \mathrm{X}_{\mathrm{p}}$, and
$\mathrm{X}_{2}=229+015 \mathrm{X}_{1}$, while the coefficient of correlation is $r_{12}=+250=059$.

## 9.-Linearity of Regression.

132. It has been assumed in this analysis that the relations between the different variables-in so far as any relations exist at all-can be expressed in a linear form. For instance, it was assumed that the relation between $X_{4}$ and $X_{1}$ could be expressed by an equation of the form $X_{4}=a \div b X_{1}$, which is the equation of a straight line. But if the relation between any two of the variables cannot be adequately expressed by such an equation, the significance of any result obtained by using this equation will thereby be decreased. It would not be wrong to use this equation : all that can be said is that it would not furnish such a good basis for an estimate as one which expressed the true relation between the variables.
133. In order to test whether the equation of a straight line adequately expresses the relation between two variables it will be necessary to introduce another measure of correlation-the correlation ratio, represented by the Greek letter $\eta$ (eta). The only difference between this measure and the coefficient of correlation is that in the case of the latter the deviations are measured from the line of regression, whereas for the correlation ratio the deviations in each column are measured from the mean of that column*. In the case of the correlation ratio a curve

- See Table A which illustrates how the data were classified.
througb the means of the columns is the estimate corresponding to the line of regression in the case of the correlation coefficient.* According to the formulæ given for calculating these measures $\eta^{3}-r^{2}$ is. equal to the difference between the sum of the squares of the deviations from the line of regression and the sum of the squares of the deviations from the means of the columns, divided by the sum of the squares of the deviations from the mean of all the values, and since in each column the sum of the squares of the deviations from the mean is less than the sum of the squares of the deviations from any other point, it. follows that $\eta^{*}$ is always greater than $r^{\prime}$ unless the line of regression passes through all the means.

The difference $\eta^{2}-\boldsymbol{r}^{2}$ is represented by the Greek letter $\zeta$ (zeta), and it will be small or large according as the line of regression follows. closely the line joining the means or departs materially from it. Themagnitude of $\zeta$ is a measure of the non-linearity of regression.
134. In order to test whether $\zeta$ is "significant" or not, i.e. whetherthe difference between $\eta^{2}$ and $r^{2}$ is due merely to a chance fluctuation. of sampling or to a real departure of the anderlying relation from the linear form, the standard error of $\zeta$ must be calculated. This is given. approximately by the expression $2 \sqrt{\frac{\zeta}{N}}$. In the present case $N$ equals. 250. The value of $\zeta$ for each pair of variables studied, together with the standard error and the ratio between them are given in Table D. Ordinarily if this ratio is less than 17 the line of regression may be considered adequately to represent the underlying relation between the two variables, but if it is more than 3 it is fairly certain that it does not. For instance, it may be safely said that a linear equation does not adequately represent the relation between $X_{18}$ and $X_{2}$ since in' this case$\zeta$ is nearly four times its standard error.

## 10.-An Alternative Method.

135. Since the distribution of expenditure changes according to the economic status of the family, it would be reasonable to expect that in some unit could be found by which to measure this status, an accurate

[^21]estimate of the distribution of expenditure could be obtained in terms of this onit. The size of the family has been given in terms of units based on the Lusk scale of food requirements. If, therefore, the income of the family is divided by the number of such units, a rough measure of the economic status of the family will be obtained. This variable is the income per unit and will be designated $\mathrm{X}_{0}$.
136. The regression equations, standard errors of estimate and correlation coefficients are given in Table E. The value of $\boldsymbol{\zeta}$ for each pair of variables together with the standard error and the ratio between them are given in Table F. The regression coefficients and their standard errors are also given in this Table. It will be noticed that except in the case of food and miscellaneous items, the standard errors of estimate are greater, and the coefficients of correlation therefore less, than the corresponding quantities when estimates were made in terms of both $X_{1}$ and $X_{2}$.
137. In the case of children's clothing, the percentage expenditure decreases as the income per unit increases. This appears strange when it is realised that the percentage expenditure on children's clothing increases when either the income increases and the size of the family remains constant, or when the size of the family increases and the income remains nnaltered. The explanation is that the percentage expenditure on children's clothing decreases as the income per unit increases because the size of the family decreases at the same time. The regression equation for $X_{2}$ (size of family) in terms of $X_{0}$ (income per unit) is $X_{4}=5.39-105 X_{0}$. Thus when $X_{0}$ increases from Rs. 10 per unit to Rs. 30 per unit," $X$, decreases from 4.34 to 224 units, i.e. the number of children, expressed in units (not persons), decreases from 251 to 41 units. The percentage expenditure on children's clothing when $X_{0}=10$ is 4.59 and when $X_{0}=30$ it is 129 , so that when the number of children in the family is taken into account the percentage expenditure on children's clothing per unit is greater when $X_{0}=30$ than when $X_{0}=10$. In interpreting these results it must therefore be remembered that as the income per unit increases, the size of the family decreases and vice versa. The coefficient of correlation between $X_{9}$ (size of family) and $\mathrm{X}_{\mathrm{o}}$ (income per unit) is as high as $-736 \pm{ }^{\circ} 029$.
138. The relation between the percentage expenditure on the six main groups and the income per unit is shown graphically in Chart $D$. The average income per unit $\mathrm{M}_{0}=2020$ and the standard deviation $\sigma_{8}=5^{\prime \prime} 97$.

[^22]
## 11.-Conclusion.

139. It must not be thought that these regression equations express. the relation between the variables with mathematical precision. The standard errors do certainly measure the errors due to sampling but they can give no indication of the possibility of the sample being biased or unrepresentative, nor can they give any indication of the size or influence of errors in the data. In the present case every attempt has been, made to obtain a representative sample and to secure accurate information, but it is impossible to say how far this has been successful. These considerations must be borne in mind in interpreting the results.,
140. This method of obtaining estimates can be applied to problems in many spheres of work. For instance, it is reasonable to suppose that the yield per acre of crops depends on the rainfall and temperature. during certain months of the year. If, then, statistics were available for several years giving the rainfall anditemperature during these months and the yield, an estimate could be made of the yield (the dependent variable) in terms of the rainfall and temperature during these months: (the independent variables). This estimate would be the regression equation and the standard error of this estimate and the coefficient of multiple correlation would measure the reliability of estimates based on this equation. The coefficient of any one of the independent variables in the regression equation would show what effect that particular: variable had on the yield when all the other independent variables were kept constant.*
141. This method of analysis, by which certain factors can be kept constant while the effects of variations in another are studied, is known. as partial or nef correlation. But in order that a single factor can be isolated for special study in this way, all the factors which produce variations must be known, and this is not always the case. There is . also the difficulty of obtaining reliable statistics of the factors in question, even when they are known. It should also be borne in mind in drawing conclusions from correlations which appear to exist between variables, that measures of correlation do not establish causal relationships : they merely measure the association between variables. The measurement of correlation is one thing, its interpretation quite another.
[^23]
## CHART A

Showing the relation between the total income and the percentage expenditure on food.


## CHART B

Bhewing the percentage expenditure on the different groups for families with an income of Re $\mathbf{6 0}$ but of different sizo.


## CHART C

Bhowing the percentaga expenditure on the different groups for familias of the sams size (3.03 units) but with different incomes.


## CHART D

Showing the rolation between the percentage expenditure on the different groups and the income por unit,


TABLE A.
Classification of Families according to Income and Size.


TABLE B.
Estimates with their Standard Errors and the Corresponding Coefficients of Correlation.

| Eatimaked variable. <br> (1) | Estimate. (2) | Standard error of estimate. <br> (3) | Coefficient of correlation. <br> (4) |
| :---: | :---: | :---: | :---: |
| $\mathbf{X}_{1}$ (Surplus) ... |  | $\begin{aligned} & \sigma_{1}=2.64 \\ & \sigma_{3,1}=2 \cdot 45 \\ & \sigma_{3.2}=2 \cdot 40 \\ & \sigma_{*: 12}=2.03 \end{aligned}$ | $\begin{aligned} & r_{3}=+372 \pm .055 \\ & r_{n}=-411 \pm .053 \\ & r_{211}=639 \pm 037 \end{aligned}$ |
| $\mathbf{X}$ (Food) ... | $\begin{aligned} & X_{4}=M_{4}=53.34 \\ & X_{4}=6314-154 X_{4} \\ & X_{4}=44 \cdot 18+2.802 X_{4} \\ & X_{4}=54.77-210 X_{1}+3.652 \ddot{X}_{4} \end{aligned}$ | $\begin{aligned} & \sigma_{4}=5 \cdot 19 \\ & \sigma_{61}=4.73 \\ & \sigma_{4,2}=4.61 \\ & \sigma_{4 y}=3.65 \end{aligned}$ | $\begin{aligned} & r_{16}=-410 \pm 053 \\ & r_{14}=+\cdot 460 \pm .050 \\ & r_{4 \cdot}=711 \pm .031 \end{aligned}$ |
| If (Fael) ... | $\begin{aligned} & X_{6}=M_{5}=5.29 \ldots \\ & X_{3}=688-025 X_{1} \\ & X_{5}=6.50-.308 X_{5} \\ & X_{5}=7.53-200 X_{1}-284 X_{3} \end{aligned}$ | $\begin{aligned} & \sigma_{s}=1 \cdot 22 \\ & \sigma_{s, 1}=1 \cdot 17 \\ & \sigma_{s, 2}=1 \cdot 18 \\ & \sigma_{b, 4}=1 \cdot 14 \end{aligned}$ | $\begin{aligned} & r_{\mathrm{bt}}=-283 \pm 058 \\ & r_{s \mathrm{ss}}=-257 \pm 059 \\ & r_{\mathrm{s} \cdot 11}=-343 \pm 056 \end{aligned}$ |
| $\mathrm{X}_{4}$ (Rent) ... | $\begin{aligned} & X_{8}=M_{6}=13.44 \\ & X_{8}=1189+024 X_{1} \\ & X_{8}=17.40-1.210 X_{2} \\ & X_{4}=15.08+046 X_{1}-1.396 X_{4} \end{aligned}$ | $\begin{aligned} & \sigma_{8}=2.51 \\ & \sigma_{6,1}=2.49 \\ & \sigma_{6.3}=2.29 \\ & \sigma_{6.2}=2.21 \end{aligned}$ | $\begin{aligned} & r_{61}=+134=062 \\ & r_{95}=-410=053 \\ & r_{6 \cdot \mathrm{~L}}=-478=049 \end{aligned}$ |
| $\mathrm{X}_{\mathrm{y}}$ (Clothing) ... | $\begin{aligned} & X_{7}=M_{y}=1085 \ldots \ddot{x}_{1} \\ & X_{7}=837+039 X_{1} \\ & X_{7}=1200-369 X_{2} \\ & X_{7}=966+048 X_{1}-561 X_{1} \end{aligned}$ | $\begin{aligned} & \sigma_{7}=2 \cdot 14 \\ & \sigma_{7,1}=2 \cdot 07 \\ & \sigma_{7,3}=212 \\ & \sigma_{7 \cdot 4}=2 \cdot 02 \end{aligned}$ | $\begin{aligned} & r_{n}=+251 \pm .059 \\ & r_{n}=-147 \pm .062 \\ & r_{7.15}=332 \pm 056 \end{aligned}$ |
| In (Household requisites). | $\begin{array}{ll} X_{x}=M_{s}=2 \cdot 65 & \ldots \\ X_{8}=121+023 X_{1} & \cdots \\ X_{5}=2 \cdot 68-009 X_{1} & \cdots \\ X_{6}=146+024 X_{1}-107 X_{4} & \cdots \end{array}$ | $\begin{aligned} & \sigma_{z}=93 \\ & \sigma_{8,1}=87 \\ & \sigma_{z \rightarrow t}=93 \\ & \sigma_{8 \cdot 13}=97 \end{aligned}$ | $\begin{aligned} & r_{\mathrm{a}}=+336 \pm 056 \\ & r_{\mathrm{z}}=-009 \pm 063 \\ & r_{\mathrm{B} \cdot \mathrm{E}}=349 \pm .056 \end{aligned}$ |
| $\mathrm{X}_{4}$ (Miscellancons) | $\begin{aligned} & X_{4}=M_{9}=1464 \\ & X_{2}=9.36+083 X_{1} \\ & X_{0}=21.90-2.219 X_{2} \\ & X_{0}=1590+125 X_{1}-2.725 X_{2} \end{aligned}$ | $\begin{aligned} & \sigma_{8}=3.67 \\ & \sigma_{9.1}=3.49 \\ & \sigma_{9,1}=3.15 \\ & \sigma_{0.1}=2.67 \end{aligned}$ | $\begin{aligned} & r_{91}=+312 \pm .057 \\ & r_{\mathrm{m}}=-515 \pm .046 \\ & r_{2-10}=687 \pm .033 \end{aligned}$ |
| $\mathbf{X}_{10}$ (Husband's clothing). |  | $\begin{aligned} & \sigma_{10}=1.43 \\ & \sigma_{101}=1.43 \\ & \sigma_{10.9}=1.06 \\ & \sigma_{10.18}=104 \end{aligned}$ | $\begin{aligned} & r_{\text {wid }}=-012 \pm 063 \\ & r_{\text {INE }}=-667 \pm .035 \\ & r_{1010}=686 \pm 034 \end{aligned}$ |
| $x_{1}$ (Wife's clothing). | $\begin{cases}X_{11}=M_{11}=3.38 & \cdots \\ X_{11}=385-007 X_{1} & \cdots \\ X_{11}=591-772 X_{7} & \cdots \\ X_{11}=567+005 X_{1}-792 X_{2}\end{cases}$ | $\begin{aligned} & \sigma_{\mathbf{1}}=1.07 \\ & \sigma_{1 \cdot 1}=1.06 \\ & \sigma_{11}=-84 \\ & \sigma_{1 \cdot 1}=.84 \end{aligned}$ | $\begin{aligned} & r_{112}=-095 \pm 063 \\ & r_{11}=-615=039 \\ & r_{112}=618=039 \end{aligned}$ |
| $\mathbf{X}_{12}$ (Children's clothing). |  | $\begin{aligned} & \sigma_{\mathrm{ut}}=2.06 \\ & \sigma_{\mathrm{va}}=1 \cdot 96 \\ & \sigma_{198}=1 \cdot 4 \cdot \\ & \sigma_{1 \times 13}=1 \cdot 40 \end{aligned}$ | $\begin{aligned} & r_{103}=+311 \pm .057 \\ & r_{103}=+721 \pm 030 \\ & r_{10}=+733 \pm 029 \end{aligned}$ |

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TABLE C.

## Partial Correlation Coefficients and Partial Regression Coefficients with

 their Standard Errors.| Estimated rariable.(1) | Partial correlation coefficients and partial regression coefficients when |  |
| :---: | :---: | :---: |
|  | $x_{2}$ (size of family) is canstant. <br> (2) | $\mathbf{X}_{1}$ (income of famity) is constant. <br> (3) |
| $x_{1}$ (Surplas) ... | $\begin{aligned} & r_{114}=+\cdot 537 \pm .045 \\ & b_{n 14}=+097 \pm \cdot 010 \end{aligned}$ | $\begin{aligned} & y_{2+3}=-561 \pm .043 \\ & b_{301}=-1.664 \pm 156 . \end{aligned}$ |
| $X_{4}$ (Food) | $\begin{aligned} & r_{\mathrm{ade}=-610 \pm .040}^{b_{\mathrm{ar}}=-210 \pm .017} \end{aligned}$ | $\begin{aligned} & r_{011}=+637 \pm \cdot 028 \\ & \delta_{011}=+3652 \pm 280 \end{aligned}$ |
| $x_{8}$ (Fuell | $\begin{aligned} & r_{\mathrm{g},-2}=-234 \pm \cdot 060 \\ & b_{\mathrm{s}, 4}=-.021 \pm .005 \end{aligned}$ | $\begin{aligned} & r_{t+1-1}=-201 \pm .061 \\ & s_{5+1 / 2}=-284 \pm .088 \end{aligned}$ |
| $\mathrm{X}_{4}$ (Real ${ }^{\text {a }}$... | $\begin{aligned} & r_{\mathrm{ay}}=+268 \pm \cdot 059 \\ & b_{\mathrm{ar} 7}=+046 \pm .010 \end{aligned}$ | $\begin{aligned} & r_{m-1}=-463 \pm .05 a \\ & b_{\infty 11}=-1.39 \pm 169 . \end{aligned}$ |
| $\mathrm{X}_{1}$ (Clotaing) - ... | $\begin{aligned} & \sigma_{n+}=+301 \pm .058 \\ & b_{n}=+.048 \pm 010 \end{aligned}$ | $\begin{aligned} & r_{r \rightarrow 1}=-223 \pm 060 \\ & b_{7 n+1}=-.561 \pm \cdot 155 . \end{aligned}$ |
| $X_{4}$ (Hoasehold requisites) | $\begin{aligned} & r_{129}=+349 \pm .056 \\ & b_{n 13}=+624 \pm .004 \end{aligned}$ | $\begin{aligned} & r_{a \cdot 1}=-101 \pm 063 . \\ & b_{0-1}=-107 \pm \cdot 067 . \end{aligned}$ |
| $\mathrm{X}_{4}$ (Miscellaneors) ... | $\begin{aligned} & r_{n \cdot}=+531 \pm \cdot 045 \\ & b_{n-2}=+125 \pm 013 \end{aligned}$ | $\begin{aligned} & r_{m-1}=-645 \pm \cdot 037 . \\ & b_{m+1}=-2725 \pm \cdot 204 . \end{aligned}$ |
| $\mathrm{X}_{10}$ (Husband's clothing) | $\begin{array}{ll} r_{\text {lat } 14}=+215 \pm 060 & \ldots \\ b_{\text {bat } 4}=+017 \pm 005 & \ldots \end{array}$ | $\begin{aligned} & r_{10 p-1}=-686 \pm \cdot 034 \\ & b_{10+1}=-1 \cdot 187 \pm .080 . \end{aligned}$ |
| $X_{u}$ (Wie's clothing) ... | $\begin{array}{ll} s_{\mathrm{B}, 2}=+077 \pm .063 & \therefore \\ b_{\mathrm{H}, 4}=+005 \pm \cdot 004 & \ldots \end{array}$ | $\begin{aligned} & r_{11+1}=-614 \pm 039 \\ & b_{11,+1}=-792 \pm .064 . \end{aligned}$ |
| $\mathrm{x}_{\mathrm{y}}$ (Children's ctothing) ... | $\begin{array}{ll} r_{\text {maty }}=+196 \pm 061 & \ldots . \\ b_{\text {mant }}=+021 \pm .007 & \ldots \end{array}$ | $\begin{aligned} & r_{\text {Ins-1 }}=+690 \pm \cdot 032 \\ & b_{t_{\text {max }}}=+1.658 \pm \cdot 107 . \end{aligned}$ |

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TABLE D.
The Values of $\$$ with their Standard Errors and the Ratios between them.

| Estimated variable. | Value of $\zeta$ <br> - (2) | Standard error. | Ratio. (4) | Value of 6 (5) | Stand ard error. $(6)$ | Ratio. <br> 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{X}_{8}$ (Surplus) ... ... | $\zeta_{11}=035$ | 024 | $1 \cdot 5$ | $C_{53}=-010$ | 013 | 8 |
| X. (róod) | $\zeta_{61}=034$ | ${ }^{\prime} 023$ | $1 \cdot 5$ | $\zeta_{62}=041$ | . 026 | 16 |
| $\mathbf{X}_{5}$ (Fuel) | $\Sigma_{51}=\cdot 016$ | . 016 | 10 | $\zeta_{5 s}=033$ | -023 | 1.4 |
| $\mathbf{X}_{6}$ (Rent) | $\zeta_{62}=08$ | -037 | $2 \cdot 3$ | $\zeta_{\text {cer }}=030$ | . 022 | 14 |
| $\mathbf{X}_{7}$ (Clothing) ... | $ك_{71}={ }^{\circ} 00$ | '010 | 6 | $\zeta_{78}=1062$ | $\cdot 032$ | $20:$ |
| $\mathbf{X}_{8}$ (Household requisites) ... | $\zeta_{81}={ }^{\circ} 01$ | 016 | 1:0 | $\zeta_{88}=\cdot 037$ | 025 | 15 |
| $\mathbf{X}_{0}$ (Miscellaneous) ... | $\zeta_{92}=013$ | 014 | 9 | $\zeta_{89}=-016$ | 016 | 10 |
| $\mathrm{X}_{10}$ (Husband's clothing) | $\zeta_{10+1}=\cdot 052$ | 029 | 18 | $\zeta_{30,}=1021$ | '019 | 12 |
| $\mathbf{X}_{11}$ (Wife's clothing) | $\zeta_{11,1}=019$ | 018 | 11 | $\delta_{11,}=10077$ | . 035 | 22 |
| $\mathrm{X}_{10}$ (Children's clothing) . | $\zeta_{13,1}=010$ | 03 | 8 | $\zeta_{181}=136$ | . 048 | 29 |
| $X_{i z}$ (Total clothing) :- (Husband's clothing). | * | ..* | $\cdots$ | $\zeta_{14,}=-231$ | . 061 | 38 |

TABLE E.
Estimates with their Standard Errors and the Corresponding Coefficients of Correlation.

| Estimated variable. <br> (1) | Estimate. (2) | Standard error of estimate. (3) | Coefficient of correlation, <br> (4) |
| :---: | :---: | :---: | :---: |
| $\mathbf{X}_{\text {g }}$ (Surplus) ... | $\mathrm{X}_{4}=-3.64+261 \mathrm{X}_{0} \quad . .$. | $\sigma_{3-0}=2 \cdot 13$ | $r_{s 0}=+\cdot 592 \pm .041$ |
| $X_{1}$ (Food) | $\mathrm{X}_{4}=66.94-673 \mathrm{X}_{6} \quad .$. | $\dot{\sigma}_{40}=3: 28$ | $r_{40}=-775 \pm 025$ |
| $\mathrm{X}_{6}$ (Fuel). ... | $\mathrm{X}_{5}=5 \cdot 30-6004 \mathrm{X}_{0}$ | $\sigma_{5-0}=1.22$ | $r_{50}=-002 \pm .063$ |
| $\mathrm{X}_{4}$ (Rent) .. | $\mathrm{X}_{4}=10.56+143 \mathrm{X}_{0}$ | $\sigma_{60}=2 \cdot 36$ | $\mathrm{r}_{50}=+340 \pm .056$ |
| $\mathrm{X}_{\mathrm{y}}$ (Clothing) ... | $\mathrm{X}_{7}=9.66+{ }^{\prime} 059 \mathrm{X}_{6}$ | $\sigma_{7-0}=2.11$ | $r_{70}=+165 \pm 062$ |
| $X_{8}$ (Household requisites). | X | $\sigma_{8 \cdot 0}=90$ | $r_{30}=+243 \pm .060$ |
| $\mathrm{X}_{0}$ (Miscellaneous) | $\mathrm{X}_{8}=5$ | $\sigma_{8 \cdot 0}=2.52$ | $r_{90}=+\cdot 727 \pm * 030$ |
| $\mathbf{X}_{10}$ (Husband's clothing). | $\mathrm{X}_{10}=1 \cdot 77+138 \mathrm{X}_{0} \quad \ldots$. | $\mathrm{F}_{10 \cdot 0}$ | $r_{10,0}=+\cdot 577 \pm .042$ |
| $X_{11}$ (Wife's clothingl. | $\mathrm{X}_{11}=161+088 \mathrm{X}_{0}$ | $\sigma_{110}=93$ | $\mathrm{F}_{11}, 0= \pm .491 \pm .048$ |
| $\mathrm{X}_{12}$ (Children's clothingt. | $\mathrm{X}_{12}=6.24-165 \mathbf{X}^{1}$, $\quad .$. | $\sigma_{12,0}=1.81$ | $\mathrm{r}_{14 \mathrm{O}} 0=-478 \pm .049$ |

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TABLE F.
Regrassion Coefficients with their Stardard Errors, and the Values of $\backslash$ with their Siandard Errors and the Ratios between them.


# PART II.-The Cost of Living in Rangoon. 

Section A.-Price Index Numbers in Grneral.

## 1.-Index Numbers.

142. The term "index number" has been defined by different writers in various ways. According to Day" it is a number designed to express the relative change or difference of a group of related variables. This is perhaps as simple a definition as any other. Index numbers should not be confused with relative numbers. If the annual production in Burma of any mineral, say tin, was under consideration, a series of relative numbers could be obtained by making the production of one particular year, called the base- year, equal to 100 . But if the annual production of all minerals in Burma were under consideration, and a series of numbers was needed to measure the output of minerals as a whole, such numbers would be termed index numbers. Relative numbers are sometimes referred to as index numbers, but it is better to restrict the latter term to figures which represent the combination of a number of series. If the original data are . prices the relative numbers are usually called price relatives.

## 2.-Price Index Numbers.

143. Index numbers have been used for measuring changes in a variety of phenomena, but it is chiefly in connection with prices that the technique of their construction has been developed. The first price index number appears to have been constructed by an Italian, G. R. Carlit, who reduced the prices paid for grain, wine and oil in 1750 to percentages of change from their prices in 1500 , added the percentages together and divided the sum by three, i.e., it'was an arithmetic average of three price relatives. The theory and practice of index numbers was chiefly developed in England. During the Napoleonic wars there were violent price fluctuations and several attempts were made to measure these fluctuations. But it was not till the second-half of the 19th century that index numbers of prices began to be published regularly in England. The earliest was that of the London Economist,
[^24]
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which was begun in 1869. Then came Sauerbeck's in 1886. Both these index numbers were for wholesale prices and were simple arithmetic averages of price relatives. Apparently reliable data were not then available for the determination of weights. Within recent years it has been realised that price movements are much more important in some commodities than in others, and the price relatives have usually been weighted according to their importance. Thus the present Board of Trade index of wholesale prices is a weighted geometric average of price relatives. Retail price index numbers and cost of living index numbers are of much more recent growth. Practically all the current cost of living index numbers have been compiled since the war.

## 3.-Weighted Arithmetic Averages of Price Relatives.

144. When price relatives are weighted the money value of the different commodities produced, exchanged or consumed is usually taken to be a measure of their importance. But this money value changes from one year to another and the problem at once arises as to when these values should be calculated. If the index compares prices at one date with those at another date ${ }^{*}$ the values might be calculated at either of the two dates. For instance, if $p_{0}{ }^{\prime}, \phi_{0}{ }^{\prime \prime}, p_{0}{ }^{\prime \prime \prime}$. . . are the prices of different commodities at date ' 0 ', the base date (the subscript in the $p^{\prime}$ ' indicates the date and the superscript, the different commodities) ; $q_{0}^{\prime} q_{0}^{\prime \prime} q_{0}^{\prime \prime \prime}$. . . the corresponding quantities ; $p_{1}^{\prime} p_{1}^{\prime \prime} p_{1}^{\prime \prime \prime}$ the prices of these commodities at date " 1 "-which will be referred to as the selected date; and $q_{1}^{\prime} q_{1}^{\prime \prime} q_{1}^{\prime \prime \prime}$. . . the corresponding quantities, then the values of the commodities will be $\phi_{0}^{\prime} q_{0}^{\prime}, p_{0}^{\prime \prime} q_{0}^{\prime \prime}, p_{0}^{\prime \prime \prime} q_{0}^{\prime \prime \prime}$. . at the base date and $p_{1}^{\prime} q_{1}^{\prime}, p_{1}^{\prime \prime} q_{1}^{\prime \prime}, p_{1}^{\prime \prime \prime} q_{1}^{\prime \prime \prime}$. : . at the selected date. A price index weighted with values at the base date will be-

$$
\frac{\frac{p_{1}^{\prime}}{p_{0}^{\prime}} p_{0}^{\prime} q_{0}^{\prime}+\frac{p_{1}^{\prime \prime}}{p_{0}^{\prime \prime}} p_{0}^{\prime \prime} q_{0}^{\prime \prime}+\frac{p_{1}^{\prime \prime \prime}}{p_{0}^{\prime \prime \prime}} p_{0}^{\prime \prime \prime} q_{0}^{\prime \prime \prime} \cdot \cdot \cdot}{p_{0}^{\prime} q_{0}^{\prime}+p_{0}^{\prime \prime} q_{0}^{\prime \prime}+p_{0}^{\prime \prime \prime} q^{\prime \prime \prime}} \cdot
$$

The price relatives (e.g., $\frac{p_{1}^{\prime}}{p_{0}^{\prime}}$ ) are here multiplied by the weights (e.g., $\left.p_{0}^{\prime} q_{0}^{\prime}\right)$, and the sum of the quantities so obtained is then divided by the sum of the weights. This fraction may be written $\frac{\Sigma \frac{p_{1}}{p_{0}} p_{0} q_{0}}{\Sigma p_{0} q_{0}}$. In this expression " $\Sigma$ ", the Greek letter Sigma or " $S$ " (the initial letter of sum), means "the sum of such terms as". Similarly a price-index weighted with values at the selected date will be $\frac{\Sigma \frac{p_{1}}{p_{1}} p_{1} q_{1}}{\Sigma p_{1} q_{1}}$

[^25]145. There are two other methods of weighting which are analogous to these. In one of them the weights are obtained by multiplying the prices at the base date by the quantities at the selected date, and in the other the prices at the selected date are multiplied by the quantities at the base date. These two formule are numbered II and III below ; formulæ I and IV have been described above :-

146. It can be shown that formula III is greater than formula $I$ and formula IV greater than formula II moless all the price relatives are equal." Formulx III and IV may be rejected as they possess what Irving Fisher calls "bias," i.e., they are subject to a foreseeable tendency to err in one particular direction. $\dagger$ The remaining formulse can be written-
$$
\frac{\sum p_{1} q_{p}}{\sum p_{1} q_{0}} \text { and } \frac{\Sigma p_{1} q_{1}}{\sum p_{1} q_{1}}
$$


The numerator $=\Sigma\left(x^{\prime} y^{\prime \prime} x^{\prime \prime} y^{\prime \prime} y^{\prime \prime}\right.$ wbere the summation extends to all pairs of commodities. Substitution of the original values gives-



As stated above the summation in the numerators extends to all pairs of commodities. These expressions are both positive unless all the price relatives are equal, in which case they vanish. As far as is znown, these expressions have never appeared before. Irving Fisher on page 384 (First Edition) of "The Maling of Inder Numbers" and F. C. Mills on pages 209-10 of "Statistical Methods" show that formula III will ordinarily be greater than formula I and formula IV greater than formula II, but they do not obtain mathematical expressions for the differences, or show that these differences vanish only when all the price relatives are equal.

+ See page 86 (first edition) of his "The Making of Index Numbera."

In these forms they are not averages of relatives at all but ratios of aggregates, i.e., each is the ratio between the cost of a fixed quantity of goods at the selected date to the cost at the base date. Practically all index numbers are either averages of relatives or ratios of aggregates." Just as a price relative may be considered as measuring either the percentage change in the price of a commodity from one date to another or the ratio of the cost of a fixed amount of the commodity at one date to that at another, so a price index may be considered as measuring either the average percentage change in the prices of certain commodities from one date to another, i.e., an average of price relatives, or the ratio of the cost of a fixed amount of commodities at one date to that at another, i.e., a ratio of aggregates. Each conception appears appropriate for certain purposes. A cost of living index is perhaps best regarded as a ratio of aggregates.
147. Any arithmetic average of price relatives, simple or weighted, can, of course, be expressed as a ratio of aggregates, inasmuch as $\underset{\sum_{p_{0}}}{\stackrel{p_{1}}{ } \text { w }}$ can be written $\frac{\Sigma_{\phi_{1}} \cdot \frac{w_{0}}{\phi_{0}}}{\Sigma_{p_{0}} \cdot \frac{w_{0}}{\phi_{0}}}$ Other things being equal an index expressed as a ratio of aggregates is to be preferred to one expressed as a weighted arithmetic average of price relatives, since its meaning can be more easily grasped.

## 4.-Other Averages of Price Relatives.

148. In the preceding paragraph arithmetic averages of price relatives have been discussed. Other averages are, however, in use. The most common are the geometric average, weighted or simple, and the median. In fact, if data are not available for the determination of weights the simple geometric average and median are generally to be preferred to the simple arithmetic average. This is because frequency distributions $\dagger$ of price relatives are often-especially if the dates far apartasymmetrical or skew. This is due to the fact that a price relative has no upper limit-an increase of 100,500 or 1,000 per cent. or more is possible-but 100 per cent. is the maximum decline possible, which occurs when the price falls to zero. If, however, the logarithms of the price relatives are plotted instead of the actual values, or what amounts to the same thing, if the actual values are plotted on a ratio or logarithmic chart, a much more symmetrical distribution is obtained. This tendency

[^26]for price relatives to follow a geometric law of dispersion is a strong argument for the use of the geometric average in taking simple averages of these relatives. Weighting the price relatives of course alters things to a certain extent, but ordinarily, whenever percentages of change are being averaged, the use of the geometric mean, either simple or weighted, would appear to be advisable. It should be noted that in skew distributions the arithmetic mean is usually farther from the mode than either the geometric mean or medign, and is therefore not so representative. The nature of a distribution of price relatives may have a definite bearing on the selection of the appropriate average. It will be seen later that the purpose the index number has to serve may also govern the type of average used.

## 5.-Ratios of Aggregates.

149. In paragraph 146 two ratios of aggregates bave been given, namely, $\frac{\Sigma p_{1} q_{0}}{\Sigma p_{0} q_{0}}$ and $\frac{\Sigma p_{1} q_{1}}{\Sigma \not q_{0} q_{i}}$. In the first formula the weights are based on the quantities of the base year, and in the second, on those of the selected year. They are the two fundamental forms and there appears to be no teason for preferring one to the other. A comprömise is usually effected, such as :-

$$
\sqrt{\frac{\Sigma_{p_{1} q_{0}}}{\Sigma_{p_{0} q_{0}}} \times \frac{\Sigma_{p_{1} q_{1}}}{\Sigma_{p_{0} q_{1}}}}
$$

which is the geometric mean. This is Itiving Fisher's "ideal "index number." Another compromise may be effected by taking the arithmetic mean of the weights, namely $\frac{\Sigma_{p_{b}}\left(\frac{q_{0}+q_{1}}{2}\right)}{\Sigma_{p_{0}}\left(\frac{q_{0}+q_{2}}{2}\right)}$, i.e., $\frac{\sum p_{1}\left(q_{0}+q_{1}\right)}{\Sigma f_{0}\left(q_{0}+q_{3}\right)}$.
150. When accuracy, simplicity and rapidity of calculation are all baken into account this last formula is perhaps as good as any other index number for comparing the prices at one date with those at another, when quantities are available for both dates. Usually, however, a price index number has to serve for several dates, e.g., it might have to express the change in the level of prices over a period of ten years or so. In such a case a series of what are called chain index numbers could be computed in which the weights and prices are those of contiguous years. But it has been shownt that the errors involved infollowing this method are cumulative and may be serious if the links are chained for a number of years. It is also open to the objection that both prices and quantities are changed in each application of the formula and it is almost impossible to say what proportion of the final result is accounted for by changes in

[^27]
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prices and what part by changes in quantities : it is a composite which represents neither price movements nor quantity changes separately: As a rule the purpose of a price index number is to measure the hovement of prices only. There is also the practical objection that, except in special cases, yearly, to say nothing of monthly, weights arte not usually available. In general, therefore, it is better to use a Formula with fixed weights when an index number is required for a number of years. Such an index number measures the change in one factor only, namely, the price, and is therefore more easily understood.
151. If the weights are those of the base year the aggregative type of index number, $2 . e$., one which is a ratio of aggregates, becomes $\frac{\sum p_{1} \psi_{p}}{\sum p_{0} q_{9}}$. If other weights are chosen it may be written $\frac{\Sigma p_{1} w}{\Sigma p_{0} w}$. The aggregative index with constant weights is particularly suitable for cost of living index numbers ; it measures the change in the cost of a fixed quantity of goods. These fixed weights musi, of course, be fairly representative throughout the period, and a change made as soon as they cease to be. This point is discussed later in paragraphs 155 to 160.

## 6.-Purpose of Price Index Numbers.

152. One of the first points to be decided in the construction of an index number is the purpose to be served by it, since this determines what commodities have to be selected, and it may also have some bearing on the type of average employed. To give an illustration; the National Bank of Commerce in New York has constructed a price index, which it publishes monthly in the Commerce Monihly, the purpose of which is to construct an indicator which will respond with the utmost promptness and sensitiveness to the varying fortunes of buisiness. It is not intended to picture the general price level but to show in what direction those prices most closely related to business activity are moving. It is therefore restricted to the more basic raw materials, as they dre widely traded in and feel economic pressure quickly; informatioh as to their prices is also definitely and speedily available. Such an findex has to combine great sensitiveness to price change with ability to escape, in some measure at least, the distorting effects both of abnormal fuctuation and immobility, and this has been accomplished by employing an averaging process based on a modified median. $\dagger$
153. Index numbers are sometimes constructed with no clearly defined purpose. For instance, most of the wholesale price index numbers purport to measure the general level of prices or the purchasing pdwèr

[^28]of money. Such an index ought strictly to include representative data from all the various goods and services for which money is exchanged, e.g., rents, wages, salaries, discount and interest rates, prices of stocks and shares, besides the various other commodities which are sold at retail as well as wholesale rates. As far as is known no index at present does this.
154. In general the total field of prices to be covered by an index number can be divided into groups, each with its own characteristic price fluctuations. It is difficult to isolate these groups as the interrelations which prevail within the price system are extremely complicated. But it must be remembered that most, if not all, index numbers are made from samples, and if the index is to be of any value it must be a representative sample, and include commodities from all the various groups which have characteristic peculiarities of fluctuation. Ordinarily, the greater the number of commodities which can be included in a sample, the more likely are the results to be representative. This is one of the most important, as well as difficult, aspects of the problem of index number construction and, unfortunately, has not been given the attention it deserves.

## 7.-Accuracy of Price Index Numbers.

155. It has been seen that most index numbers are made from samples and they are, therefore, subject to the errors due to sampling. These are errors due to incompleteness of data. In the case of unweighted averages the calculation of the probable error is not very difficult, but for other averages it is very troublesome.*
156. But there are also errors in index numbers caused by errors in the data. It is commonly believed that errors in weights are not so important as errors in prices and it is perhaps worth while examining this to see how far it is true. The aggregative type of index number $\frac{\Sigma p_{1} w}{\Sigma p_{b} w}$ will be used. This formula, or what amounts to be the same thing, the weighted arithmetic average of price relatives, is used in practically all cost of living index numbers.
[^29]
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157. To use the methods of the differential calculus; if $\delta I$ is the change produced in the index number I by a change $\delta p_{1}^{\prime}$ in the price $p_{1}^{\prime}$ of a particular commodity in the selected year, then-

$$
\begin{gathered}
\mathrm{I}+\delta \mathrm{I}=\frac{\Sigma p_{1} w+w^{\prime} \partial p_{1}^{\prime}}{\Sigma p_{0} w} \\
\text { and } \therefore \delta \mathrm{I}=\frac{w^{\prime} \partial p_{1}^{\prime}}{\Sigma p_{0} w}=\frac{\hat{p}_{1}^{\prime} w^{\prime}}{\Sigma p_{0} w} \frac{\partial p_{1}^{\prime}}{p_{1}^{\prime}} \\
\text { which gives } \frac{\partial I}{I}=\frac{p_{1}^{\prime} w^{\prime}}{\Sigma p_{1} w} \cdot \frac{\partial p_{1}^{\prime}}{p_{1}^{\prime}}
\end{gathered}
$$

Thus the ratio of the percentage error in the index, namely $\frac{\partial I}{1}$, to the percentage error in the price of a commodity in the selected year, namely $\frac{\partial p_{1}^{\prime}}{p_{1}^{\prime}}$, is equal to the ratio between the cost of this commodity in the aggregate, namely ${p_{1}^{\prime}}^{\prime} w_{1}^{\prime}$, to the total cost of the aggregate in the selected year, namely $\Sigma_{p_{1}} w$.
158. Similarly the error produced in I by an errorin $\phi_{0}^{\prime}$ is given by

$$
\begin{aligned}
& \mathbf{I}+\delta \mathrm{I}=\frac{\sum p_{1} w}{\Sigma p_{0} w+w^{\prime} \delta p_{0}^{\prime}}=\frac{\Sigma p_{1} w}{\sum p_{0} w\left(1+\frac{w^{\prime} \delta p_{0}^{\prime}}{\sum p_{0} w}\right)} \\
& =\frac{\Sigma p_{1} w}{\Sigma p_{0} w}\left\{1-\frac{w^{\prime} \delta p_{0}^{\prime}}{\Sigma p_{0} w}\right\} \text { approximately, if the error is small. } \\
& \text { This gives } \delta I=-\frac{\Sigma p_{1} w}{\sum p_{0} w} \cdot \frac{w^{\prime} d p_{0}^{\prime}}{\sum p_{0} w} \\
& \text { and } \therefore \frac{\partial \mathrm{I}}{\mathrm{I}}=-\frac{w^{\prime} \partial \nu_{0}^{\prime}}{\sum p_{0} w} \\
& =-\frac{p_{0}^{\prime} w^{2}}{\Sigma p_{0} w} \cdot \frac{\partial p_{0}^{\prime}}{p_{0}^{\prime}}
\end{aligned}
$$

This is similar to the first result except that it has a negative sign, which means that I decreases if $\boldsymbol{p}_{0}^{\prime}$ increases, and vice versa. This relation of course holds, and then only approximately, only when the error is small.

## ( 64 )

159. The effect of an error in the weiglits has now to be considered. It is given by-

$$
\begin{aligned}
\delta \mathbf{I} & =-\frac{\Sigma p_{1} w+p_{1}^{\prime} \partial w^{\prime}}{\Sigma p_{0} w+p_{0}^{\prime} \delta w^{\prime}}-\frac{\sum p_{1} w}{\Sigma p_{0} w} \\
& =\frac{\left.p_{1}^{\prime} \Sigma \bar{p}_{0} w=\bar{p}_{0}^{\prime} \Sigma p_{1} w\right) \delta w^{\prime}}{\Sigma p_{0} w\left(\Sigma p_{0} w+p_{0}^{\prime} \delta w^{\prime}\right)}
\end{aligned}
$$

This gives $\frac{\partial \dot{I}}{I}=\frac{\left(\frac{p_{1}^{\prime} w^{\prime}}{\Sigma p_{1} w}-\frac{\phi_{0}^{\prime} w w^{\prime}}{\Sigma p_{0} w}\right) \frac{\partial w^{\prime}}{w^{\prime}}}{\left(1+\frac{\bar{p}_{0}^{\prime} \partial w^{\prime}}{\sum p_{0} w}\right)}$
which may be written $\frac{\delta I}{I}=\frac{\frac{p_{0}^{\prime} w^{\prime}}{\sum p_{1} w}\left(\frac{p_{1}^{\prime}}{p_{0}^{\prime}}-\frac{\sum p_{1} w}{\sum p_{0} w}\right) \frac{\delta w^{\prime}}{w^{\prime}}}{\left(1+\frac{p_{0}^{\prime} \delta w^{\prime}}{\sum \phi_{0} w}\right)}$

$$
\begin{aligned}
& =\frac{\frac{p_{0}^{\prime} w^{\prime}}{\sum p_{1} w}\left\{\frac{p_{1}^{\prime}}{p_{0}^{\prime}}-\mathbf{I}\right\} \frac{\Delta w^{\prime}}{w^{\prime}}}{\left(1+\frac{p_{0}^{\prime} \delta w^{\prime}}{\Sigma p_{0} w}\right)} \\
& =\frac{\dot{p}_{0}^{\prime} w^{t}}{\sum p_{1} w}\left\{\frac{p_{1}^{\prime}}{p_{0}^{\prime}}-I\right\} \frac{b w^{\prime}}{w^{\prime}},
\end{aligned}
$$

approximately, if the error in weights is small. -Thus in addition to the reducing factor $\frac{p_{0}^{*} w^{\prime}}{\Sigma p_{1} w^{\prime}}$ there is, in addition, the factor $\left(\frac{p_{1}^{\prime}}{p_{0}^{\prime}}-1\right)$ which will ordinarily be considerably less than unity and may be very small indeed. Thus a commodity may be a very important one but if its price relative does not differ much from the index it is not necessary for its weight to be determined with any great accuracy. In normal times, if the interval between the dates is not great, the price relatives should not differ a great deal from themselves and therefore from the index, and accuracy in weighting is not of very great importance. An index calculated with weights belonging to one of the two dates will therefore not differ greatly from one based on weights belonging to the other date. It is for this reason that it is possible in normal times to obtain an accurate price index, even though the consumption of the commodities may have altered somewhat between the two dates.

## 8.-Continuity of Price Index Numbers.

160. It has been shown that if a price index number is to measure only changes in prices the weights used must be constant over the period covered by the index. But it is also necessary that these weights

[^30]should be representative over this period. It follows that prices at two dates can be compared only if the consumption of the commodities at the two dates is sensibly the same, since it is only in such cases that fixed weights can be obtained which are traly representative. Changes in the consumption of commodities may be very small from year to year but may become appreciable over a period of, say, 50 years. In comparing prices over such a long period the position is also aggravated by the fact that the price relatives will probably be very divergent, and this makes the need for accuracy in weighting all the greater." It becomes necessary therefore to change the weights from time to time. The frequency with which this should be done depends on how quickly conditions change. Ordinarily it is advisable, even in normal times, to test the weights at regular intervals, since changes in the production of commodities and the demand for them take place so quickly that some commodities rise to importance and others drop out of it within a decade.

## Section B.-Cost of Living Index Numbers for Rangoon.

## 1.-Introduction.

161. The term "cost of living " is not always used in the same sense. For instance, the statement is often made that the cost of living is higher now than it was before the war. If made by a workman this may mean that his wages now do not buy as much as his wages did before the war. $t$ With this meaning there are two variable elements, namely, wages and prices. Or again it may mean that the money cost of maintaining the workman's present standard of living is greater than the cost of maintaining his standard of living before the war. With this interpretation the

[^31]variable elements are prices and the standard of living. Or again it may mean that the money cost of maintaining a certain fixed standard of living, possibly that before the war, is greater now than it was before the war. In this case there is only one variable element, namely prices. It may also mean-though the workman might not admit it-that he has now greater difficulty in maintaining his present standard of living on his present wages than he had before the war in maintaining his standard of living then on his wages at the time. Here there are three variable elements, namely, prices, wages and the standard of living. There are possibly other interpretations.
162. Measurements of each of these changes might be useful for different purposes. For instance, a measurement of the quantities of goods and services which wages will buy now with what wages would have bought before the war (the first interpretation) would measure the change in real wages. A comparison between the cost in 1918 of maintaining the actual standard of living in 1918 with the cost in 1914 of maintaining the actual standard of living in 1914 (the second interpretation) was made by the Sumner Committee in $1918^{*}$. But it is only for measuring the changes in the cost of living caused by changes in prices only (the third interpretation) that cost of living index numbers have been used.

## 2.-Cost of Living Index Numbers.

163. A cost of living index is a price index in which the weights of the commodities are determined according to the importance of those commodities in consumption, and it has been shown that if a price index is to measure only changes in prices the weights must be constant over the period for which the index is required. Thus, if the changes in the cost of living of a particular family are being measured the weights of the commodities must be based on the importance of these commodities in the consumption of this family. And if fixed weights can be obtained which are roughly representative of this family's consumption throughout the period for which the index is required, then the corresponding index will measure fairly accurately the changes in its cost of living over this period, particularly if the dispersion of the price relatives is not great (see paragraph 159). Similarly if fixed weights can be obtained which are roughly representative of the consumption of several families, i.e., of a section of the community, then the corresponding cost of living index will measure fairly accurately the changes in the cost of living of this section of the community.
164. In many countries cost of living index nambers bave been constructed for the whole community composed of families of very

[^32]different standards of living, but the more homogeneous the section of the community and the more restricted the area (since prices vary from place to place) the more likely is it that a cost of living index will measure accurately the changes in the cost of living of the families included. A cost of living index constructed for a particular class of the community should therefore not be used for measuring the changes in the cost of living of any other class unless there are reasonable grounds for thinking that the standards of living of the two classes are not very dissimilar. For example, the British Government has been severely criticised because it has used the Ministry of Labour cost of living index which is based on the expenditure of a working class family, to measure the changes in the cost of living of civil servants and retired officers of the Army and Navy for the purpose of fixing their pay or pensions.
165. It should also be borne in mind that the increase in the cost of living from one date to another has not one definite value, like the length of a stick. Certain weights are used in the calculation of the index number which measures this increase and these weights are a compromise between weights representative of the consumption at each date. This compromise can be effected in many ways, and although some compromises might be better than others it cannot be said that any one index is absolutely correct and that the others are only approximations to it. It might perhaps be thought useless to attempt to measure a fictitious thing which has no definite value. But if the "living" at the two dates is comparable, and information as to prices and quantities at the two dates is available, then the cost of living index numbers obtained by taking the various compromises will ordinarily not differ a great deal from one"another-provided, of course, a reliable formula has been used-and for all practical purposes any one of them might be taken to measure the change in the cost of living. At the same time it should be remembered that the value of an index number is dependent on the weights used in calculating it.

## 3.-Dëtermination of Weights.

166. The most satisfactory way of determining the average consumption of a number of families is by means of a budget enquiry. This method is equally appropriate for the community as a whole or for any class or group of the community. What is sometimes called the aggregate expenditure method has also been used when the object has been to measure the change in the cost of living of the community as a whole. When this method is used the aggregate consumption of certain articles by the whole community is obtained, usually by adding imports to production and subtracting exports. But accurate values can be
obtained only for a very limited number of articles, and as a rule this method is now used only when no data are available from budget studies.
167. In the present enquiry separate cost of living index numbers have been calculated for (a) Burmese, (b) Tamils, Telugus and Uriyas, (c) Hindustanis and (d) Chittagonians, and the budgets collected for these races have been used to determine the weights. The formula used for calculating the index numbers may be written $\frac{\Sigma p_{1} q}{\Sigma p_{0} q}$. In this formula the prices $p_{0}$ are the prices at date " 0 ," the base date, which has been taken to be the year 1913. The quantities " $q$," which are the weights, represent the consumption during the years 1926 and 1927 since these were the years in which the budgets were collected. The prices " $p_{1}$ " are the prices at any selected date " 1 " for which the index number is required. The formula may also be written $\frac{\sum \frac{p_{1}}{\rho_{0}} p_{0} q}{\sum p_{0} q}$ which is a weighted arithmetic average of price relatives in which the weights are So $_{0} q$, i.e., prices in the base year 1913 multiplied by quantities representative of the consumption during 1926-27.
168. The weights are given in Table XLII. This table also shows how the index numbers are calculated. These weights are based on the monthly consumption of a single individual (Indian races) or of a family (Burmese) but they must not 6 e taken to represent the actual consumption of the commodities in question. Some commodities have been omitted and others have been combined and represented by one commodity. Two kinds of rice have been included for the Burmese and Hindustanis sipce both are consumed in fair quantities. Only one kind of pulses has been included although in some cases more than one are consumed. Potatoes and onions have been included but no fruit or other vegetables since it was impossible to obtain reliable prices. Clothing and household requisites have been taken together since bedding and clothing are made of similar materials. The articles made of cotton included in the index have been taken to represent all articles made of cotton, and similarly for articles made of sill. In the miscellaneous'group the only items included are soap, cheroots, and, in the case of the Tamils, Telugus and Uriyas, liquor also. Under cheroots is included all expenditure on tobacco. The commodities included in the different index numbers represent more than 80 per cent. of the actual expenditure.

## 4.-Collection of Prices.

169. The collection of monthly retail prices since 1913 of the different articles included in the cost of living index numbers bas been an exceedingly difficult task. Ordinarily retail shop keepers do not keep
accounts of sales, and even when they do, the accounts are usually destroyed after a few years. But after a diligent search some reliable shops were at last found in which records were available since 1913. These records were often mixed up with other matter and many weary hours were spent by the investigators in picking ont what was wanted. For some of the commodities the prices collected by the Corporation were used.
170. In the case of rents some difficulty was experienced since the increase has not been the same in all quarters. In the case of the Indian races who, when they are not given free quarters by employers, occupy the registered lodging houses in the centre of the town, the increase has been greater than for the Burmese who prefer to live farther out. As regards the houses occupied by Burmese families, many are more or less of a temporary nature, being composed of planks, mat and dhanni and it was impossible to find out the rent of these buildings in 1913 since they were not then in existence. The figures for rent were obtained from Mr. C. B. Rennick, F.S.I., Assessor to the Corporation, who very kindly went through the assessment records since 1913 and worked out two sets of index numbers-one for Indians, based on the increase in rents in the centre of the town and the other for the Burmese based on the increase in areas a little farther out.
171. As regards current prices these are collected by the investigators from certain shops. In many of the shops from which the working classes buy their goods there is no recognised price. The seller fixes his price according to the knowledge of the buyer. A Telugu coolie bas very little idea of what he ought to pay and usually pays much more than the proper price. From many shopkeepers it is impossible to obtain reliable prices of anything. Adulteration is common, in fact, anything which can be adulterated is adulterated. A large number of shops has therefore bad to be ruled out because the goods sold there are not fixed in quality or grade or because there is no regular selling price. The shops from which prices are now collected sell goods of recognised qualities or grades and their prices are fixed. The number of such shops is not as large as might have been desirable but a few reliable prices were considered to be better than a large number of unreliable ones.
172. The number of quotations taken during the month from each shop varies for the different commodities. For instance, in the case of rice, chillies, potatoes, onions, fish, beef, the prices of which change fairly rapidly, ten quotations are taken during the month but for cheroots only two quotations are taken. In all cases the simple arithmetic average of the different quotations is taken.
$\square$
5.-Index Numbers for Rangoon.
173. The cost of living index numbers are given in Table XLIII. Separate index numbers are also given for the main groups of expenditure and for cereals. For the Hindustanis both rice and wheat flour are included under cereals but for the other races only rice is included. During the early years of the war the retail price of rice was abnormally low, particularly in 1917 and the early months of 1918. It began to rise towards the end of 1918, and reached a maximum about the end of 1921. In 1922 it fell. The price of clothing began to rise towards the end of 1915 and reached a maximum in 1919 and 1920. In these years cotton goods were about treble the prewar price. Since 1920 the price of cotton goods has been falling gradually. Very little increase in rents appears to have taken place between 1913 and 1915, but from 1916 there was a steady increase which was checked by the Rent Control Act in 1920. There was a further increase in rents in January 1927 when rent control ceased. The prices of the articles in the miscellaneous group, namely soap (country cake), tobacco and liquor (country), have risen very little above their prewar values and the index for this group is therefore appreciably below the cost of living index.
174. It will be noticed that the cost of living has increased more for the Hindustanis than for the other races. This is mainly due to the fact that they use ghee which has gone up appreciably in price, whereas. the othet races use only sesamum or mustard oil which have not gone up so much. Also they eat more arhar dhal and wheat flour. Fresif fish is consumed by all races, particularly by the Burmese. During. the rains it is very scarce and the price rises accordingly. This causes the Burmese index number to rise several points. It is not known whether the working class families continue to buy the same quantity of fish at the enhanced price : if they do, then the index number will represent the increased cost. But it is probable that they buy something cheaper, e.g. beef, and yet obtain the same amount of nutriment. It is natural to avoid commodities which have risen much in price and substitute others which have risen less, and this process of substitution can often be carried on within certain limits without any reduction of standard. But of course no account can be taken of such substitutions in the cost of living index. The weights in the index numbers represent the consumption during 1926-27, but it is believed that there has been very little change since 1913 in the commodities consumed by the working classes.
175. The following table gives the percentage group expenditure in the base year $1913:$

Percentage Group Expenditure.

| Group. | Burmese. | Tamils, Telogus and Uriyas. | Hindustanis. | Chittagonians. |
| :---: | :---: | :---: | :---: | :---: |
| Food ... | 59.2 | 507 | 61-8 | 61.6 |
| Clothing and Housebola Requisites. | 113 | 65 | 81 | 8'1 |
| Rent ... ... ... | 139 | 80 | 110 | 91 |
| Fuel and Lighting ... | 49 | 57 | 78 | 51 |
| Miscellaneous . | 107 | 29.1 | 11.4 | 162 |
| Total | $100 \%$ | 1000 | 1000 | 1000 |

176. The changes in the cost of living of the different races have been illustrated graphically in Cbart E. These diagrams have been drawn on a logarithmic or ratio scale and the reason for using this scale will now be explained. Ordinarily, a ratio scale is used and not a natural scale when the object is to méasure the proportional increase rather than the actual increase. An example will perhaps make the meaning clearer. In Chart F two diagrams have been drawn, one on the natural scale and the other on the ratio scale. The one on the natural scale has been taken from Diagram No. 17 opposite page 315 of "India in 1925-26 :" it shows the variations in the values of the exports of (i) jute, raw and manufactures and (ii) metals and ores during three recent years as compared with the averages of the prewar and war periods." The other chart illustrates the same information but is drawn on a ratio scale.
177. If it was desired to show the actual increase in the total value of exports contributed by the different articles of export then this would be brought out quite clearly by the diagram on the natural scale, since on this scale equal increases are represented by equal vertical distances. If, on the other hand, it was desired to compare the rates at which the exports of different articles were increasing, this would not be shown clearly by the diagram on the natural scale : one might perhaps imagine from the fact that the graph for metals and ores in this diagram is nearly parallel to the base, while that for jute is decidedly oblique to it, that

[^33]the exports of metals and ores had not increased as fast as those of jute. The comparison between the rates of increase is shown clearly in the diagram on the ratio scale. In this diagram the vertical spacing has been so chosen that equal vertical distances do not represent equal absolute increments but equal proportional increments, i.e., equal rates of change. Thus, equal rates of increase aré represented by equal slopes, whether the line occurs at the top of the diagram or at the bottom. It will be seen from the diagram on the ratio scale that since the pre-war period the exports of metals and ores have increased at a much greater rate than those of jute.
178. Ordinarily the movements of prices are best represented on a ratio scale since it is the proportional changes rather than the absolute changes, which are important. As a rule, it is the proportional changes in prices rather than the absolute changes, which are most highly correlated with changes in economic conditions. In fact, it may be said, in general, that a relation is more likely to be found between the proportional changes in quantities than between their absolute changes. Relations can sometimes be found to exist between quantities simply by drawing them on a ratio chart.*
179. The errors produced in the index numbers by errors in the prices and weights are given in Table XLIV. It will be noticed that the percentage errors produced in the index by a 10 per cent error in the weights are much less than those produced by a similar error in the prices. In very few of the commodities does even 100 per cent error in the weight produce more than 1 per cent error in the index.

[^34]
## CHART E.

Showing the change in the cost of living of the working classes In Rangoon since 1913
A. BURMESE.



## CHART E.

Showing the change in the cost of living of the working classes in Rangeon since 1013-contd.

An BURMESE,-contd.


## Bcale of Percentage decreases

## CHART E.

Showing the change in the cost of living of the working classes in Rangoon since 1913 -contd.
B. TAMILS, TELUGUS AND URIYAS.



## CHART E.

Showing the ohange in the cost of living of the working classes in Rangoon since 1913-contd.
B. TAMILS, TELUGUS AND URIYASmcontd.



## CHARTE.

Showing the change in the cost of living of the working classes in Rangoon
since 1913-contd.
C. Hindustanis.



## CHART E.

Showing the change in the cost of living of the workint classes in Rangoon since 1913-contd.
C. HUNDUSTANIS-contd.


## CHART E.

Showing the change in the cost of living of the working clàsses in Rangoon since 1913-contd.
D. CHITTTACONIANS.


$$
\begin{gathered}
\text { Scale of } \\
\text { Percentage } \\
\text { increasen } \\
350 \\
200 \\
\hline
\end{gathered}
$$

- chart E.

Showing the change in the cost of living of the working classes in Rangoon since 1913-contd.
D. CHITTAGONIANS-contd.


## CHART F.

showing the variations in the values of the exports from Britiah India of (I) Jute, raw and manufactures and (ii) metals and ores.


## PART III.-Conditions of Labour in Rangoon.

## 1.-Introduction.

180. In this section it is proposed to deal with the labonr onty in those industries or occupations in which a sabstantial number of workers is engaged. It may conveniently be divided into (1) Factory labour ; (2) Labour employed outside factories, e.g., shipping and transport labour and labour employed by public bodies; and (3) Casual labour which includes rickshaw and handcart pullers and sampan-wallas. Factory labour will be dealt with first.

## 2-Factory Labour.

(a) Laboitr in Rice Mills.
(i) Size of the Industry.
181. Rice milling is the most important industry in Rangoon. In 1926 according to the annual report of the Chief Inspector of Factories the number of rice mills in Rangoon was 51. It is a seasonal industry and the number employed in it varies somewhat during the year. Except for a small number of mea required to look after the mill machinery, efc., who are mainly Chittagonians and are paid direct by the employer, practically alp the labourers employed in rice mills are maistry coolies, if., coolies who are recruited and paid by the employers' labour contractors or maistries. During the busy season which extends from January to Aprii, the number of Chittagonians employed is about 2,000 and the number of maistry coolies about 14,000 , of whom about 10,000 are Telugus and about 4,000 Tamils. There are also some Hindustanis among the maistry coolies but their number is small. Most of the Chittagonians and about o,000 Telugus and 2,000 Tamils stay on in the mill barracks during the slack season. The Chittagonians are recruited locally and paid direct by the employers and no special interest attaches to them. But the manner of recruitment of most of the maistry coolies is peculiar to rice mills and on account of the special interest attached to this class of labour it is discussed in some detail in the following pages.
(ii) Nature of the Contrach.
182. The general practice in all rice mills of any size is for the employer to enter into 2 contract with a maistry for the supply of unskilled labour for the various operations carriedon from the point at which paddy arrives at the mill to the point at which rice is shipped into cargo boats
for export. In most contracts no mention is made of the number of workmen required : the maistry agrees to supply sufficient labour as and when required day or night at the piece rates laid down. in the contract. A sum of money usually between Rs. 3,000 and Rs. 5,000 is always deposited by the maistry with the firm as security for the due performance of his duties under the contract, and this deposit is liable to be forfeited if the maistry fails to discharge his obligations. In some cases the person who obtains the contract does not carry out any part of the work himself, but gives it out to another contractor. This sub-contractor has, of course, to pay a substantial sum for obtaining the work. The existence of this sub-contractor may not be known to the employer who deals only with the person who signs his contract.
183. The main branches of work provided for in the contract are :-
(1) Carrying paddy in baskets from boat or rail to godowns ;
(2) Carrying paddy in baskets from godowns to hopper (feeding the hopper) ;
(3) Bagging and weighing the rice on the mill floor, and dragging the bags of rice to the stitching place ;
(4) Stitching the bags of rice ;
(5) Carrying the bags to godowns and stacking them there; and
(6) Carrying the bags from the godowns to the jetty and shipping them into cargo boats.
The coolies engaged in these operations will be referred to as paddy carriers [classes (1) and (2) ], bagging coolies [class (3)], stitching coolies [class (4) ] and bag carriers [classes (5) and (6)]. About twothirds of the maistry coolies in rice mills are paddy carriers, about onefith bag carriers and the remairder are about equally divided between bagging and stitching coolies.
184. The person who arranges for the supply of the labour at the mill is generally. known as the head maistry. In most mills the bag carriers are recruited, paid and supervised by the head maistry himself, but in the case of the other coolies this is usually done by sub-maistries. Sometimes a head maistry may have a few of his own paddy carriers, and very occasionally there are sub-maistries for the bag carriers. The head maistry is ordinarily paid a premium by each of the sub-maistries in charge of bagging and stitching for the privilege of getting the work. In a mill which runs for the greater part of the year and where the outturn is fairly large; this premium may be as much as Rs. 500 per year. No such payment is made by the sub-maistries in charge of paddy' carriers.

## (iii) Recruitment of Labour.

: 185. Most of the paddy carriers are recruited in India. The submaistries either themselves go to India or send their agents there about Ootober to negotiate with prospective recruits. These recruits are

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generally well-known to the sub-maistries and are often residents of the same or a neighbouring village. Advances are paid to them, about Rs. 25 being the usual amount, but as mach as Rs. 100 may be paid if the recruit has a little property. With this advance the recruit may pay off any small debt outstanding; he also leaves a certain amount with his, family to cover their maintenance charges for some weeks. The recruits are then brought to Rangoon by the sub-maistries or their agents whobear all the expenses for the journey. On arrival in the mill the recruits. are usually made to sign their names or give their thumb impressions on a printed form of agreement or on a piece of blank paper. The amount is afterwards entered by the maistries. Sometimes they are made to sign promissory notes for sums never less than the total amount spent on them.
186. In addition to the men recruited in India a fairly large numberof paddy carriers is recruited locally. These coolies have usually come to Rangoon independently of the maistries. They divide themseives into gangs each of which nominates a leader from among its members and they visit the mills just before they begin to get busy, see the head maistry and come to an understanding with him about the wages to be paid. They usually remain in the mill during the busy months only and are ordinarily given what is known as backsheesh. This backsheesh which is first given as a loan is eventually treated as a gift if the men receiving it serve under the head maistry until the close of the busy season. The head maistry holds the leader responsible for all his men. The practice in respect of backsheesh in almost all mills is for the head maistry to get the leader to sign an on-demand promissory note, in which no amount is entered or a higher amount than the backsheesh received is shown. This promissory note is returned or destroyed at the end of the busy season, provided, of course, the men do not run away. The amount of backsheesh varies with the number of men in the gang, one containing 25 men being paid about Rs. 250 or Rs. 300, which works out to between Rs. 10 and Rs. 12 for each man. These backsheesh coolies get paid at the same rates as the coolies recruited in India. In some cases these locally recruited gangs are not given' backsintesh and are then paid at slightly higher ratés.
187. In addition to these two classes of paddy carriers who are paid at piece rates a few coolies are sometimes obtained locally by the head maistry and paid at daily rates. This usually happens only when the mill is very busy and the number so employed is ordinarily very small.
188. Practically all the bagging and stitching coolies are recruited locally by the bagging and stitching sub-maistries respectively who give them loans which are recovered from their wages. Ordinarily about Rs, 50 is advanced to each cooly at the begitning of the year.
189. The majority of the bag carriers are recruited locally by the head maistry. In the large mills in Kanaungto each man is given a backshecsh of Rs. 95. In the mills on the Paxandaung creek backsheesh, when given, is Rs. 65 or Rs. 70. When it is not given the bag carriers are paid at higher rates.
(iv) Payments by Employer.
190. The following are the rates usually paid by the employer to the head maistry for the more important kinds of work in rice mills :-

| Landing paddy | ... | From R | Rs. 0-15.0 | to Re. 1-40 |  | cets. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Feeding the hopper |  | From | Rs, 0.60 | to Rs. 0-9.0 |  |  |
| Bagging, weighing an | stitc | ouble) | Rs. $1-60$ |  |  | bag |
| Stacking | ... | From | Rs. 1-40 | to Rs. 1-12-0 |  |  |
| Shipping | ... | From | Rs. 3-0,0 | to Rs. 400 |  |  |

The different rates for the same kind of work are due to the different distances the bags or baskets have to be carried. In the case of landing paddy from boats, the depth of the boats is also taken into account. As a rule a combined rate is given for bagging, weighing and stitching. In one or two mills the contract does not prescribe a tariff but an overhead rate for all operations. In addition to these rates, all the big rice millers pay the hèad maistry a percentage surcharge on the amount of the bill. This surcharge was introduced in 1920 because the head maistries represented to the millers that they were sustaining losses. This surcharge was 25 per cent. in 1920-22, 10 per cent. in 1923-25 and 20 per cent. in 1926 and 1927. It is understood that the surcharge has been reduced to 15 per cent. this year.

## (v) Deductions by the Head Maistry.

191. The head maistry always keeps the surcharge for himself, but in addition he makes other deductions from the amount he receives from the employer. For instance, he either pays at lower rates than those at which the employer has paid him or he takes a percentage commission. In some cases he makes deductions in both ways. Other petty deductions are also made. For instance in the work done by paddy carriers and bagging and stitching coolies the head maistry takes zccount only of multiples of fifty. Thus if 2,947 baskets of paddy are landed from a boat he pays for only 2,900 , although the employer pays bim for 2,947 . In the case of stacking and shipping bags of rice mulfiples of ten only are taken into account. In the case of paddy landed from a boat the amount due for unloading each boat is calculated. For other operations the amount due for work done is calculated every week. The head maistry also keeps for himself any odd annas and pies, i.e., if the amount due to a sub-maistry comes to Rs. 197-13-9, the head maistry pays him only Rs. 197.

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192. In the case of the paddy coolies who usually have sub-maistries, the amount deducted by the head maistry before payment to the submaistry varies from about 6 per cent. (in the busy season) to about 12 per cent. (in the slack season) of the amount (excluding the surcharge) received from the employer. The percentage deducted by the head maistry before paying the bagging and stitching sub-maistries is the same all the year round and varies from about 10 to 15 . The bag carriers are usually the head maistry's own coolies and the percentage deducted by him is about 10 per cent. for the coolies who receive no backshecsh and about 30 per cent. for those who do. These bag carriers have to do very heavy work and are assally in great demand.

## (vi) Deductions by Sub-maistriss.

193. The dedactions made by the sub-maistries are similar to those made by the head maistry. The sub-maistry either pays at lower rates than those at which the head maistry has paid him or he charges a percentage commission. Annas and pies are also neglected and in distribating the amount among all the coolies he takes two or more shares for himself. The nature and amount of the deductions made by the head maistry and sub-maistries may be illustrated by an example. The figures given are for a week's outturn by the bagging and stitching coolies in a fairly large mill during the busy season and are believed to be somewhere near the truth, but the deductions vary considerably in the different mills.

[^35]Less-
5 per cent. commission on Re. 214-15-0 Rs. A. P.

| Rs. 10-12-0 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wages of clerk | ... | ... | Rs. 1-0-0 |  | 12 | 0 |
| Balance ... | ... | . | $\ldots$ | 203 | 3 | 0 |
| Amount received by the |  | stitching sub-maistry |  | 203 | 0 | 0 * |

Amount received by stitching coolies from the sub-maistry. 4,550 bags (single) @ Rs. $0-8-0$ per 100 bags ... 22120 31,650 bags (double) © Rs. 0-8-0 per 100 bags ... $158 \quad 40$

18100
This is distributed among 34 coolies but the sub-maistry counts himself as 6 so the amount is divided by 40 which comes to about Rs, 4-8-5 and as odd pies are not paid each coolie gets Rs. 4-8-0.

Amount received by stitching coolies (34) $\quad$|  | $\quad$. | Rs. | A. | P. |
| :--- | :--- | :--- | :--- | :--- |
| 153 | 0 | 0 |  |  |

Amount received by the bagging sub-maistry from the head maistry.
Rs. A. $\mathbf{P}$.

| 4,550 (single) @ Rs. $0-10-0$ per 100 bags 31,650 (double) © Rs. $0-10-0$ per 100 bags |  |  | ... | Rs. 28 197 | A. 7 7 | P. 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | ... | 197 | 13 | 0 |
|  |  |  |  | 226 | 4 | 0 |
| Less- Rs. A. |  |  |  |  |  |  |
| 5 per cent. commission on |  |  |  |  |  |  |
| Rs. 226-4-0 | ... 11 | 50 |  |  |  |  |
| Wages of clerk | 1 | 00 |  | 12 | 5 | 0 |
|  |  |  |  | 213 | 15 | 0 |
| Amount received by the weighing sub-maistry |  |  |  | 213 | 0 | $0^{*}$ |

Amount received by bagging coolies from the sub-maistry.
The bagging sub-maistry deducts 5 per cent. from the amount received by him (Rs. 213) which leaves Rs. 202-5-7 or Rs. 202 neglecting annas and pies. There were 34 bagging coolies so this amount is divided by 36 (the sub-maistry counting himself as 2 coolies) which comes to Rs. 5-9-9 or Rs. 5-9-0 when pies are neglected.

Amount received by bagging coolies (34) ... Rs. 189-2-0.

- Any odd annas and pies are subtracted from the amount dae.

Thus the Rs. 591-4-9 paid by the mill for weighing, bagging and stitching bags is distribnted as follows:-

194. There are other ways in which the head maistry and submaistries make a little out of the coolies. For instance, in almost all mills -at any rate in the busy season-the sub-maistries themselves run a mess or arrange with cooks to supply the coolies with food. In both cases the messing charges are deducted by the sub-maistries from the wages of the coolies, and they naturally see that they don't lose over it. There is also a custom according to which the proceeds of a week's bill every year-usually before the close of the busy season-are kept by the head maistry. In return for this he pays for the messing charges of the submaistries and coolies, which, of course, are much less than he ordinarily pays them. Wages in the busy season are usually paid by the head maistry and sub-maistries once a fortnight although the head maistry is paid by the employer every week. During the slack season there is no regular payment of wages to the coolies. They are given a rupee or two now and then just to keep them from starving.
(vii) Indebtedness of the Coolies.
195. Practically all the paddy carriers and the bagging and stitching coolies are indebted to their sub-maistries. The general practice is for the employer to advance money to the head maistry at the beginning of the season, and he makes advances to the sub-maistries of the paddy carriers, who in turn make advances to the coolies. The sub-maistries of the bagging and stitching coolies do not as a rule take advances from the head maistry. The paddy carriers recruited in India always arrive in this country indebted to the sub-maistries and usually remain so for the rest of their lives. Whenever they want to return to India the sub-maistry allows them only on condition that they come back when required. After some months' stay they usually return after getting $a$ fresh advance to defray expenses on the way. The submaistry keeps in touch with the coolies when they are in India and if they refuse to come back he threatens to sue them for the debt and attach their property. Thus many of these paddy carriers are men who have worked for the sub-maistry for a number of years. The bagging and stitching coolies usually pay off their advances towards the end of the year and then obtain fresh advances.
196. Repayments of advances by the coolies to the sub-maistries or by the sub-maistries to the head maistries, are usally made only when the mill is fairly busy, say from January to July or August. In the other months earnings are not ordinarily sufficient to allow of any repayments of advances being made.
197. Accounts are not regularly kept by the sub-maistries and the coolies never know the exact extent of their indebtedness. The advances received by the head maistry from the employer are always paid off before the end of the busy season. The employer deducts an instalment from each weekly bill submitted by the head maistry. The sub-maistries pay advances to the coolies in order to retain a hold on them. They prefer coolies from their own or neighbouring villages so that if the coolies run away their property can be more easily attached. The coolies too are often at the end of their resources and are willing to do anything in order to raise a little ready money. Backsheesh is usually demanded by coolies as they want to make sure of at least part of their wages.

## (viii) Attitude of the Employers.

198. As a rule the employers know little or nothing about the relations between the maistries and their coolies. The coolies are afraid to represent their grievances to the employers and the employers, on the other hand, do not think it is their business to interfere. The main concern of the employers is, of course, to get the work done with as little trouble as possible. They do not claim that the maistry system has no faults or that it is not expensive, but the majority are of the opinion that on the whole it works satisfactorily. They think they would have very great difficulty in obtaining their labour requirements except through these maistries and without paying advances and they are naturally reluctant to change over from a system, which though it may have drawbacks, at any rate works.
199. When the system of obtaining labour for rice mills through maistries was first introduced many years ago coolies were not coming in as freely as they do now and it was difficult to inducecoolies to come to Burma without paying advances. But conditions have changed considerably in recent years. At the present time large numbers of coolies come over from Madras paying their own way independently of maistries and find employment as stevedore and wharf coolies, rickshaw and handcart pullers or in factories other than rice mills. These factories pay their labour direct and have no difficulty in obtaining their requirements locally. Most of the casual workers would prefer to work in rice mills if they could be paid by the employers. With the exception of bag carrying which is of a strenuous nature practically all the labour in rice

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mills can be done by any unskilled coolie. The demand for labour in rice mills is not the same all the year round but the work conld probably be spread over the year more evenly than is done at present.
200. The position has also been affected by the repeal of the Workmen's Breach of Contract Act. As this becomes more widely known the number of coolies running away is bound to increase, with resultant losses to the maistries who will naturally ask for increased rates from the employers. But the employers cannot afford to pay increased rates for milling. As a matter of fact exporters are now finding it increasingly difficult to compete with other rice-producing countries. A reduction in the cost of milling as well as'in the cost of production of paddy appears to be called for, and it might be worth while for the owners of large mills to consider whether a less expensive system of obtaining their labour requirements cannot be evolved. The tendency in most civilised countries is for labour to be paid direct by the employer. It is the only satisfactory method of payment.

## (b) Labour in Saw Mills.

201. Next in importance is the saw milling industry. According to the report of the Chief Inspector of Factories there were 37 saw mills in Rangoon in 1926. The number of workmen employed in saw mills is about 7,500 , of whom about 1,600 are skilled. Of the skilled workmen about 600 are Telugus, 100 Uriyas, 250 Chittagonians, 600 Burmese and about 50 Chinese. Of the unskilled about 4,000 are Telugus, 700 Uriyas, 600 Chittagonians and about 600 Hindustanis. The skilled Telugus and Uriyas are usually sawyers and beltmen and the unskilled carry timber inside the mill. Telugus are also employed for shipping the timber into cargo boats. The skilled Chittagonians look after the engines and the unskilled are timber watchmen and raftsmen. The Burmese workmen are usually fitters, carpenters and sawyers. The Chinese are all carpenters and the Hindustanis usually peons or durwans.
202. All the skilled and the unskilled workers other than Telugus and Uriyas are recruited direct by the saw mills themselves. The Telagu and Uriya coolies who carry timber inside the mills are obtained through maistries who are the paid servants of the mills and whose duty it is to reep the staff up to strength. In the bigger saw mills a carrier is paid a monthly wage of Rs. 17 glus a bonus of Rs. 2 if he works for 25 days in 2 month. For every day's absence he loses besides the wage for that day, Rs. $0-4-0$ out of the Rs. 2 bonus. The pay of the maistry paries in different mills from Rs 30 to $\mathrm{Rs}_{3} 70$.


#### Abstract

203. In alli bige saw mills the worl of transperting timber from the gociowns, tio the wharf ancw shippiag it into cargo boats is ontrusted to a separate maintry amd nod to any of these is charge of the coolies insife the mill. In one or two mills the maistry in charge of shipping as well as the coolies are paid monthly salaries, but often the maistry is on a contract with the employer at piece rates. Shipping timber is of a strenuous nature and a coolie doing this kind of work is usually paid Rs. 30 per month. Where the shipping maistry is a paid servant of the employer his pay is roundabout Rs. 45 per month.


204. The wages of the shipping coolies in saw mills are always paid through their maistry. All other skilled and unskilled workers are paid direct by the employer.
205. The shipping coolies are all Telugus, mostly from the Godavari zind Kistna districts, while the Uriya and Telagu carriers come from tixe Ganjarr and Vizagapatam districts of the Madras Presidency.

## (c) Labour in other Factories.

206. Of the other factories in Rangeon employing a large number of workmen, the more important ones are the Burma Oil Co's Installation and Workshop at Dunneedaw, Adamjee Hajee Dawood's Match Factory, Upper Pazundaung and the Irrawaddy Flotilla Co.'s Dockyard at Dalla and Foundry at Ahlone. In these four establishments alone about 7,500 workmen find employment of whom about 3,000 are skilled. Of the skilled workmen about 1,000 are Burmese, 275 Telugus, 550 Uriyas, 465 Chittagoniars, 250 Chinese, about 450 belonging to other Indian races and a few Anglo-Indrans. Of the onskilled about 640 are Burmese 27375 Telugas, 650 Eriyas, 130 Chittagonians, the remainder belonging to ofther Indian races. The unskilled Burmese are mainly employed in the matcil factory for filing boxes with matches. Except for a small limmber of workers who are paid by piece through their maistries or squad leaders, payment of wages is made direct to all workmen.

## 3.-Labour employed Outside Factories.

(a) Shipping Labour.

## (i) Geweral Remavks.

207. Except rice and timber which are brought incargo hoats from the mills to the steamers all inaportant exporte find their way iste the steamers through the wharves. The goods are moved from the Port Commissioners' godowns to the crane at the whonf head and atsached to the sling by the coolies employed by their laboar contractorn. In the

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*ase of rice and timber the miff emters into a contract with a cargo boat owner for the supply of the neeessary boats, and tie boats are loaded by the coolies on the mill establishments. On arrival alongside the :ship the exewr of the beat faskens the goods on to the sling coming down from the ship and there their duty ends. The work of lifting the cargo from tbe wharf or cargo boat, as the case may be, lowering it into the ship and packing it in the hold, is done by the stevedare's coolies.
208. As regares imports all cargo other than coal and salt is dischanged frow steaners on to the wharf head. This is done by the stevedore coolies. The carge is then moved into the Port Commissioners' godowns by the coolies employed by their labour contracter. Coal and salt are handled in a different manner, and the weri is done by a separate set of coolies.
209. Shipping labour in Rangoon has therefore been taken to include stevedore coolies, wharif coolies, cango boatmen; and coal and salt coolies and is discussed separately under these heads.
(ii) Slevedore Coolies.
210. All the shipping companies,except the British India Steam Navi-* gation Company, enter into a contract with a stevedore for the proper storage in the hold or the discharge out of it of the cargo carried by their steamers. The stevedone obtains his labour requirements through his head maistry who is in some cases on: a contract with bim. The British India Steam: Navigation Company, off the other handi, have a Cargo Superintendent whe does this work and he' is given a head maistry and a labour clerk on fixed salanjes.
-
2I1. Stevedore coolies work in gangs, the strength of eache gangr varying with the commodity handled. Ordinarily theve it one gang for each hatch, made up as follows:-

| Gang maistry | $\ldots$ | 1 |
| :--- | :---: | :---: |
| Wincthmen | $\ldots$ | 2 |
| Kamalis | $\ldots$ | 4 |
| Coolies | $\ldots$ | 14 † |

212. The rates usually paid by stevedores to the head maistry are :-


Coolies $\quad . .1$ From Rs, 1-46. to Rs, 1-90 pet stifit:
Except in. one firm of stepedores, head maibtriess sute not paid anything by the stevedores. They usually mavedadictionsof orter anna per head from the nates given them by thestevedopest hetwhare

[^36]coolies are paid only Rs. 1-8-6 per shift a deduction of only half an anna is made. These are the main sources of the head maistry's income. Head maistries are also said to obtain money from their winchmen, kamalis and gang maistries for bazaar expenses and charities but it is very difficult to obtain any reliable information from the labourers on this point.
213. Except in the Cargo Department of the British India Steam Navigation Company where he is paid a daily wage of Rs. 1-13-0 the gang maistry is treated as a coolie in respect of wage. But there is a custom whereby the number of coolies actually working in a gang is one short of the number ordered by the stevedore, and the wages of this coolieare also taken by the gang maistry. Except in the case of the BritishIndia Steam Navigation Company, where gang maistries and winchmen are paid direct by the Cargo Superintendent, payment of wages is made to the head maistry who distributes them to the gang maistries, winchmen and kamalis. The gang maistry disburses the wages to the: coolies.
214. The deduction of one anna per head from the wage of each class of labourer and the short employment of a gang by one are admitted by the head maistry and known to the stevedore. Not infrequently, however, the number of men employed short is more than one.
215. Stevedore gangs work in shifts, one from 6 or 7 a m. to 5 p.m. and the other from 6 or 7 p.m. to 5 a.m, i.e. from 10 to 11 hours a day. The work goes on without any break, the operatives taking a short timeoff by turn for refreshments, etc. The demand for stevedore labour is not uniform, the busy ceason being from January to April when there is a heavy export trade in rice. The other exports and imports provide more or less uniform work to the stevedores throughout the year. A stevedore coolie works on an average about 4 or 5 days a week. The number of coolies engaged in stevedoring is between 3,000 and 4,000, the majority of whom are Telugus from the Godavari and Kistna districts of the Madras Presidency.

## (iii) Wharf Coolies.

216. As explained already the labourers dealt with in this paragraph are on the establishment of the labour contractor of the Port Commissioners and work in conjunction with the stevedore coolies. The contractor is under an agreement with the Port Commissioners for the performance of the work at the wharves on a prescribed tariff. He employs for the purpose 16 permanent gangs of 15 men each including themaistry. The maistries are paid. Rs, 40 per mensem and the coolies Ks. 30 to Rs. 35. Besides these 240 labourers, he has about 60 gangs of similar composition who are engaged when required. In these gangs the
maistries are paid Rs. 3 per cay and the coolies Rs. 1-8-0. All these wharf coolies are Telugus, most of them coming from the Godavari and Kistna districts of the Madras Presidency but a few come also from the Vizagapatam district.
217. Stevedore and wharf coolies are recruited locally. Normally no advances are given, but small amounts are paid in advance to gang maistries in the busy rice milling season with the object of obtaining a hold on them. These advances are recovered from their bills.

## (iv) Cargo Boatmen,

218. In 1927 the number of cargo boats registered was 770 and the crew prescribed for these on the basis of tonnage capacity was 6,432 . But very few, if any, cargo boats have their full complement. As a rule cargo boats contain about three-quarters of the number for which the owner pays, the wages of the absent men being shared by the tindal and his assistants. Taking this into consideration, the number of men employed in cargo boats in Kangoon may be estimated at 4,800 . They are mostly Telugus from Coromandel ports and are recruited locally. During the busy season-January to February or March-tindals are usually paid Rs. 25 and the crew Rs. 18 per mensem, and for the rest of the year Rs. 20 and Rs. 14 respectively.
(v) Coal and Salt Coolves.
219. Coal and salt work is included in the contracts entered into by the shipping companies with the stevedore. The latter obtains his supply of labour from a maistry whom he pays at so much per ton handled. This maistry is different from the stevedore's head maistry.
220. When coal is discharged, from 14 to 20 men (Tamils) are employed at each hatch. The two winchmen and the foreman are paid by the maistry a daily wage between Rs. 2-4-0 to Rs. $3^{2}$ each. Ten or twelve men stay in the hold filling the tubs, while two stand at the edge of the steamer and pour the contents of the tub into the boat These men are given Rs. 2 each per day.
221. For shifting coal from the hold to the bunker, boys are usually employed as the low roof of the hold does not admit of grown-up adults moving about with ease. These boys are usually paid a rupee each per day while the men who trim the coal in the bunker receive Rs. 2 each per day.
222. Salt is discharged in the same way ascoal except that each tub is weighed before the contents leave the ship. In addition to the foreman and winchmen between 25 and 30 men are employed at each hatch.

They are usually Telugus and are paid Rs. 1.890 a day. There is nochange in the personnel or wage afthp, foreman and winohmen, whether caal or salt is handled, as the same maigtry soes the mort in both: cases.
223. The operations conpected with the transpont of coal or salt between the steamer and the depôts or godowns on the shoreare carriet out by a boat owner who enters into a contract with the importers for the purpose. For landing coal frem the boats, Tamils and Uriyas areordinarily employed. They are usually recruited from India and the methods of payment adopted are very similar to those described in the case of paddy carriers in rice mills. The salt coolies, on the other hand, are asually Telugus and are recruited locally. They are paid at dailyrates which vary from Re. 1 to Rs. 1-8-0. The number men engagea' in handling coal (including those at discharging and thunkering coal) isabout 2,000 of whom about two-thirds are Tamils and the rest Uriyas.

## (b) Labonk kmployed by Publac Bodies.

224. The Corporation is the largest employer of labour among the public bodies in Rangoon, the number of workmen being about $5,000^{\circ}$ most of whom are Telugus. They are mainly engaged in conservancy and anti-plague operations and in the maintenance of roads and sewers. About 3,800 Telugus are employed in the Conservancy Department alone.
225. The Commissioners for the Port of Rangoon employ about $2,250^{*}$ workmen, about 1,750 being in the Engineering Department and the remainder on the launches, barges, etc. About 1,250 are Telugus, 600 Chittagonians, 200 Uriyas and the remainder mainly Indians of other races. Particulars of the labour employed by the labour contractor of the Port Commissioners are given in paragraph 216.
226. The work carried out by the Development Trust is usually done by contractors, only a small number of workmen being employed direct
(c) Transport Labour.
227. The only important organised transport service in Rangoon is maintained by the Rangoon Electric Tramways and Supply Company, Which provides employment for about $1,500^{*}$ skilled and $1,100^{*}$ unskilled (workers. Of these about 840 are Uriygs ( 440 skilled), about 740 Telugus: ( 190 skilled), about 380 Burmans (practically all skilled), about 240 Chittagoniars ( 140 skilled), about 75 Anglo-Indians (skilled) and 75 Chinese (skilled). The remainder belong to other Indian races. No contract labour is employed by this company, all its operatives being recruited locally and paid direct.


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## 4.-Casual Labour.

(a) Rickshaw Pullezg.

228. All the rickshaw pullers are Telugus and monst of them come from the Vizagapatam district of the Madras Presidency though flieve are alsoa few from the neighbourhood of Nellore. The number of ricksinatw puller licenses at the end of 1927 was 8,140 . Makibg allowarces ${ }^{4}$ for those who sesort to rickshaw pulling as a-subsidiary cocupation. for those who cease pulling shortly after taking out licenses, and for thwose who pull withaut a license, the number of puilers as the end of 1927 may be roughly estimated at somewhere roundabout 7,000 .
229. The present type of rickshaw with rabber tyres first made its appearance on the streets in large numbers in 1914 consequent on the introfuction of a rule in that year insisting on the rickshaw being so equipped. Formerly the majority had iron tyres. From 1;167 at the end of 1914 the number of licensed rickshaws rose steadily to $\mathbf{2 , 8 1 2}$ in 1920. 'Complaints were then received that the increasing number of rickshaws was interfering with other traffic, and it was decided to restrict the number to 2,000 . With this end in view a gradual process of reduction in the number of licenses issued was introduced and by April 1921 the figure decreased to 2,224. This resulted in licensed rickshaws obtaining artificial values, in some cases amounting to three times their actual cost. The hire denmanded by the owner also went up enormously. This led to public agitation against restriction, and it was then decided to allow a gradual increase in licenses with a view to the final abolition of the limitation after the owners who had paid exorbitant prices had had time to adjust themselves to the change in the position. Towards the end of 1923 all restriction was removed and the number of licensed rickshaws then rose to 3,413 . In 1924 the number of licenses issued reached the record figure of 4,982 , but in the next year the number fell to 3,785 . At the end of 1926 there were 4,280 licensed rickshaws in Rangoon, the increase being probably due to the introduction of a hire purchase system by the importers. By this time mator buses in large numbers had arrived in Rangoon. The earnings of the rickshaw pullers dropped rapidly and the number of licensed vehicles on the 1st January 1928 was ònly 3,881 , i.e. a fall of 400 in the course of 1927. The medical examination of rickshaw pullers was first introduced in June 1926.
230. For every rickshaw there are two pullers, one from $6 \mathrm{a}, \mathrm{m}$. to 2 or 3 p.m., and the other from 2 or 3 p.m, till day break. The hire charged for a new rickshaw is Re. 0-14-0 rduring the day and Re. 1 for the night. For the older xickshaws the rates are less by two to four amass. During December and January when many Telugas go eut to the quady fields for harsesting, a redaction in the cates is marde.

Since the arrival of the motor buses, owners have not been so strict about exacting the full rate from pullers and not infrequently are satisfied with 8 or 10 annas.
231. The usefulness of the rickshaw in Rangoon as a comfortable mode of conveyance for the person of modest means, particularly in the rainy season, is generally admitted and it is doubtful whether the motor buses will succeed in driving them off the streets entirely. Although as an occupation rickshaw pulling has certain objectional features, for the puller it provides a means of livelihood when probably no other is available, and other considerations do not apparently weigh much with him.

## (b) Handcart Pullers.

232. Handcart pullers are mainly Telugus from the Vizagapatam and Godavari districts of the Madras Presidency, though there are also a" few Tamils from the sonthern districts of Madras engaged in this work. From 1921 onwards there have always been about 2,000 handcarts licensed to ply for hire in Rangoon. This excludes about 700 private carts owned by big firms for the conveyance of their own goods from wharves to godowns or from godowns to railway goods sheds or other places. Ordinarily each cart has three men, but two men are sometimes seen at work with a cart which is nol fully loaded and occasionally also there are more than three men when the load is heavy. The number of handcart pullers in Rangoon may therefore be roughly estimated at 8,000 .
233. Since the termination of the war the number of handcarts in Rangoon has risen steadily while the number of bullock-carts has decreased from 2,200 in 1921-22 to 805 in 1927-28. The bullock-carts have felt the competition of the motor-lorries, but the handcarts appear to be holding their own. They are very suitable for short distances in the centre of the town.
234. The handcart-men are usually out with their carts by 7 a-m. and they return home about dusk. The hire charged by the owner for a handcart is Rs. 2 per week. The band-cartmen have to carry beavy burdens in loading and unloading the cart in addition to pulling. They are stronger, healthier and earn more than the rickshaw pullers.

## (c) Sampanwallas.

235. The only other casual occupation in which a substantial number of men is engaged is that of the sampanwalla. The number of sampans registered in 1927 was 4,415. Except for a small number of Tamils and Burmans plying in the Kanoungto and Pazundaung Creeks, the
sampanwallas in Rangoon are all Chittagonians and their number may be taken to be about 5,000 since there are occasionally two men to each sampan.

## 5.-Employment of Women and Children.

236. There are not many women and children employed in factories in Rangoon. A few Tamil women work as paddy carriers in rice mills and as coal carriers in depots, and there are also some Burmese women in match factories. A few lads are employed as paddy carriers in rice mills and as "saw dust boys" in saw mills, but most of them are over 15 years of age.

## 6.-Supply and Demand.

237. The supply of labour in Rangoon is usually adequate. In December and January there is sometimes a shortage of paddy carriers in rice mills as the coolies have not yet returned from the fields, while in the rains there is usually a surplus. In Appendix $E$ is given the number of deck passengers which passed between Rangoon and ports in India during the years 1921-25 inclusive. It will be noticed that November and December are the heaviest months for immigrant traffic and March, April and May the heaviest for emigrant traffic. The majority of Indian labourers come to Burma because of economic pressure, a bad harvest in Madras being usually followed by a heavy influx of immigrants. The labourers who come in November and December do not ordinarily go back in the ensuing April-May. Their object in coming to Burma is to save as much as possible and as a rule they stay for two or three years or for even longer periods before going back. In the majority of the occupations open to the immigrant a regular income is not assured and there is therefore very keen competition for jobs in establishments in which wages are paid regularly. Maistries in these establishments often have to pay heavy premiums for securing their positions, and they in turn extort premiums and monthly contributions from the coolies under them.

## 7.-Housing.

238. In the large mills and factories some sort of housing accommodation is usually provided for the majority of workers, but in the smaller mills and factories housing is either not provided at all or, if provided, can accommodate only a very small proportion. The accommodation provided is usually in the form of barracks which are snitable only for single men. In most of the rice mills married workers are employed but in practically all of them married quarters are not provided. These families put up improvised gunny, plank or mat partitions for
purpeses of grivacy. Not hasing been provided for in the originwt plans as passed by the Butridings Bopartment of fle Corperation, they are often objected to by the Corporation authorities.
239. The Indian working classes who are not provided with auarters. by employers usually obtain accommodation in the buildings registered in the Municipal books as lodging houses. It is mot umusual to find a tenement roons $12 \frac{1}{\prime}^{\prime} \times 40^{\prime}$ occupied by as mony as 40 or 50 people. The. gractice is for the noom to be taken out by a maistry at a fixed rentand with 2 view to makinue as much profit as possible he cmans it with ass many coolies as it will hold. In some rovns there are two sets of tenants, one set occupying it during the day and the other during the night. Families are often found in these lodging houses, gunny-bag partitions being erected to secure a certain amount of privacy. In thedry season the men usually sleep on the footpaths and pavements and ase the rooms only for cooding food and for storing their belongingsssually a deal-wood bor. But during the rains they crowd into theselodging houses antil there is hardly an inch of space left either inside theroom or outside on the stairs. In wiew of its important bearing on the general health of the city, this matber has recently been investigated and reported on by a Special Comenrittee appointed by the Lacal Government to enquire into the Public Health of Rangoon.

## 8.-Sanitation and Medical Relief.

240. Except in three or four big factories where a resident doctor is. employed, very little is done in the way of providing medical assistanceto the labourers. In the other large factories there is ussally a visiting doctor but he pays very little attention to the coelies, and in many caser. does mot know the lanpuages spoken by them. In the smaller factorien. there is $n 0$ doctor at all.

## 9.-Social Conditions.

241. Most of the married Indian labourers who come to Burma leavetheir wives and families in India. They naturally do not want to be bothered with their wives and childres in a new country where they arenot certain of obtaining work and where they do not intend to residepromaneatly. There is also the caste prejudice against travelling by sea which is particularly strong with Uriyas. Then there is the difficulty of finding suitable accommodation since married quarters are ordinarily not provided infactories and rents in the towna are very high. It will be seen from the table given in paragraph 9 of the Main Budget Emqoiny that the ratio of mades to fernales (ell classes) at the 1921 Census varied from about 2: 1 in the case of Samils to about $40: 1$ tor Chittagorimers. Tarnits do not appear to be so strict recgarding their caste ws the other

Indianraces. The majonity of Indian imbonnershaye therefore practically no home life cruning their sojection in Busma and this is capparentily largely responsible for insany of their vioes heve. The presence of a large aumber of men living zway from their families gizes rise to traffic in women and aprostitation. In the adosence of their families they take more readily to drinking and to a certain extert to opionn eating also.

## 10.-Competition between Indian and Bummese labour in Industry.

242. In 1921 a Special Industrial Ceasus was taken of establishments in which ten or mare persons wene employ'ed. The following statemset gives the number of labourers, skilled and uaskilled, in the swole province:-

Number of labourers in industrial establishments employing len or more persons.


It will be seen that Indians supplied 55 per cent. and home races 36 . per cent. of the skilled labour, white in the case of unskilled labour Indians supplied 73 per cent. and the home races onily 23 per cent. Taking skilled and unskilled labour together Indians supplied 69 per cent. and the home races 26 per cent.
243. In order to understand why Indians have oltained such a harge share in the industrial life of the provinoe it will be necessary to go badk number of years. It is clear from the Census Reports for 1901 and 1911 that after the amnexation there was a large amount of waste land in the province available for cultivation at very little cost, and that thring the next twenty years or so there was a gradual extension of the cultivated. area, the increase being particularly rapid between 1000 and 1906. These years were marked by a movement of the indigenous population from the towns to these uncultivated aweas. This increased quricultural prosperity of the country was reflected in the industries, most of which were conoerned with the disposal of its agricultural produce, and as theindigenous population was confming itself largelyto aqricaltaral extension
the deficiency of labour in the commercial and industrial occupations was filled by immigrant races, mainly Indian, who were quite prepared to undertake the mechanical and routine occupations of modern industry. There was also, in some years, a deficiency of agricultural iabour at harvest time, and the cultivator in the Delta came to rely more and more on Indian labour for the reaping of his crop, rather than depend on the labourers from Upper Burma who came down only when they bad had a bad harvest. Indian capital also played a part in financing these extensions of cultivation.
244. Conditions now appear to have changed. The land has not the same attraction for the Burman as it used to have. According to the Season and Crop Reports there is still a large amount of culturable waste land, but this does not represent the area which can be cultivated at a profit or without a large expenditure of capital. It is probable therefore that unless the methods of agriculture are improved a keener competition will take place between the Burman and the Indian for a share in the urban life of the province especially in the more skilled occupations such as engineering for which the Burman is very well fitted, but which he has hitherto, owing to being engaged in agricultural pursuits, largely abandoned to the Indian. But although the Burman may be expected to take an increasing. share in industry the province will be dependent on Indian labour for many years to come especially for the hard, monotonous unskilled work which is so distasteful to the Burman. In Rangoon, Burmese unskilled labour is practically non-existent and it is difficult to imagine how industry could be carried on without the disciplined gangs of Indian coolies.
245. Every year there is a large excess of Indian immigrants over emigrants and it might be imagined that this excess comes into direct conflict with the indigenous population in competing for work in the variaus spheres of employment. The bulk of the Indian traffic passes through Rangoon or Akyab district. In the case of Akyab in addition to the traffic by sea between Chittagong and Akyab there is also overland traffic. No figures appear to be available of this overland traffic, but according to the Akyab District Gazetteer immigration from Chittagong into Akyab is proceeding faster than emigration. As regards Rangoon, during the years 1905-24 inclusive the number of passengers who arrived in Rangoon exceeded the number who left it by $1,056,308$, which is about 53,000 per year. Since something like 90 per cent of the traffic through Rangoon is between Rangoon and India and more than 95 per cent of the passengers to and from India are Indians, 40,000 would appear to be a conservative estimate of the annual average increase in the Indian population between 1905-24 due to immigration, But the actual increase in the Indian population is much smaller than this. The Indian population at the last three census dates has beed

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calculated by Mr. Grantham. It is given in the following table (see marginal table 22 on page 223 of the 1921 Census Report) :-

| Census. | Indians in Burna (nearest whole thousand). |  |  | Percentage of females to total population. |
| :---: | :---: | :---: | :---: | :---: |
|  | Persons. | Males. | Females. |  |
| 1921 ... | 887 | 654 | 233 | 26.27 |
| 1911 ... | 745 | 558 | 187 | 25:10 |
| 1901 ... | 590 | 442 | 148 | 25.08 |

It will be seen that the average yearly increase between 1901 and 1921 is about 15,000 which is a much smaller figure than 40,000 . The reason for this is the high death rate and low birth rate among the Indian population. The low birth rate is due to the small percentage of females (see table above). The Indian population in Burma tends to decrease naturally and the greater the population the greater is the decrease. If the birth and death rates and the excess of immigrants over emigrants remain unaltered a state of equilibrium will be reached when the decrease in the population due to natural causes is equal to the excess of immigrants over emigrants. For the same reason the population of Rangoon tends to decrease naturally, since the percentage of females-due to the larger number of Indian males than females-is small. For the last three census dates this percentage was about 30 , The population is maintained by immigration from outside, mainly India.-

## Acknowledgment.

246. I should like: fo express my thanks to all those who have assisted in this enquiry: Information has been collected from a number of sources and' witbout the willing co-operation oft those who were in a position to supply this information it would not have been possible to complete the enquiry. I am particularly indebted ta Mr. C. B. Rennick, F.S.I., Assessor to the Rangoon Corporation, for his assistance in calculating the increase in rents, and to Mr. J. E. Marshall, C.I.E., I.C.S., and Mr. W. H. C. Prideaus, A.M.I.E.E., both of whom. read parts of the draft Report and made valuable suggestions. I am also grateful to Lieutenant-Colonel R. McCarrison, C.I.E., I.M.S., Lieutenant-Colonel J. Taylor, D.S.O., I.M.S., and Lieutenant-Colonel G. G. Jolly, C.I.E., I.M.S.; for thein help: in connection with food valnes, antif to Professor H.S: Jevens. I.E.S. Ackenowledgmentr ist also dure to the Director of Public Health, the Commissiones of. Excise, the Commissioner of Settlements and Land Records, the Commissioner of Police, the Superintendeat of Cotthge Industries, the Corporation of Rangoon, the Commibsioners for the Port of Rangocni, and to the many employers laboun contractors and merchants from whem information was obtained
247. As regards the staff of this office, Mr. S. Bhattacharyya, the Senior Investigator, has been with me from the beginning and has been. of invaluable assistance, particularly in the compilation of the tables. Mr. K. V. V. Iyer, the Telugp Investigator, whe came in October 1926, has been responsible for the collection of information regarding conditions of labour in Rangoon, and Part III of the Report is based. chiefly on drafts submilted by him. U Po Wun, the Burmese Investigator, also came in October 1926. He supervised the collection of the Burmese budgets and did very good work in connection with the supplementary Burmese enquiry. My Assistant Mr. Dharmaraj came only in June 1927. His previous experience in the Secretariat came in useful.
248. My grateful thanks are also due to Mr. R. W. Bishop, Snperintendent of Government Printing, for the promptness with which the Report bas been printed.

J. J. BENNISON, Officer-in-Charge.

[^37]STATISTICAL TABLES.
A.-Burmese Family Budgets.

TABLE
Average Monthly Incone
(Burmese

| Income per unit. |  | Number of |  |  |  | Average monthly income from |  |  | Total income. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 荡 |  |  |  | Men. | Women. | Children |  |
| Under Rs. 15 ... | 167 | 138 | $1 \cdot 47$ | 250 |  | $\left\|\begin{array}{lll} R s & \text { A. } & \text { P. } \\ 48 & 3 & 5 \end{array}\right\|$ | $\left\|\begin{array}{ccc} R s & A & P \\ 5 & 10 & 8 \end{array}\right\|$ | Rs. A. P. | Rs. A. $\mathbf{P}$ |
| Rs. 15 and under Rs. 20. | 325 | 1.27 | 1.38 | 1.40 |  | $\|4914 \quad 5\|$ | 6117 | 0311 | 561311 |
| Rs. 20 and under Rs. 25. | 280 | 1 115 | 119 | '93 |  | $\left\|\begin{array}{lll} 53 & 2 & 5 \end{array}\right\|$ | $5 \cdot 15 \quad 1$ | 019 | 593 |
| Rs. 25 and under Rs. 30. | 122 | 1.06 | 114 1.01 | $\begin{aligned} & 48 \\ & 48 \end{aligned}$ | 2.24 1.99 | $\left\|\begin{array}{lll} 55 & 13 & 3 \\ 62 & 10 & 0 \end{array}\right\|$ |  | *** |  |
|  | 98 | 104 | 102 | 6 |  | 6210 | 338 | ... | 6513 |
| All incomes .. | 992 | $1 \cdot 21$ | $1 \cdot 28$ | $1 \cdot 22$ | 3.01 | 528 | 51111 | 04 | 388 |

Incomes and Expenditures Expressed

| Under Rs. 15 ... |  | $88 \cdot 1$ | 10\%4 | 1.5 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rs. 15 and under |  | 87.7 | 118 | $\cdot 4$ | 100 |
| Rs. 20. Rs. 20 and under |  | 89\%8 | 100 | $\cdot 2$ | 100 |
| Rs. 25. |  |  |  |  |  |
| Es: 25 and under | - | 921 | 79 | $\cdots$ | $\because 100$ |
| Rs: 30 and above |  | 9512 | 49 | $\cdots$ | 100 |
| All incomes ... |  | $89 \cdot 8$ | 98 | $\cdot 4$ | 100 |

Percentage Expend
Under Rs. 15
Rs. 15 and under Rs. 20.
Rs. 20 and under Rs. 25.
Rs. 25 and under Rs. 30
Rs. 30 and above

All incomes
...

$$
\text { ( } 97 \text { ) }
$$

1. 

## and Group Expenditure.

## Families.)


as Percentages of Total Income.

| 58.3 | $10 \cdot 3$ | 12.1 | 51 | $2 \cdot 2$ | 12.7 | 100'6 | -6 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54.0 | 103 | 12.6 | 5.1 | $2 \cdot 4$ | 13.6 | 98.1 | 19 | 3 |
| $49 \cdot 8$ | 102 | 140 | 50 | 26 | 14.6 | 96.2 | 3.8 | 1 |
| $45 \cdot 8$ | 10.1 | 149 | 50 | 27 | 15.8 | $94 \cdot 3$ | 57 | 16. |
| $42 \cdot 3$ | 10.3 | 148 | 48 | $2 \cdot 8$ | 178 | 92.7 | 73 | 27 |
| 51/1 | 10.2 | 13.5 | 50 | $2 \cdot 5$ | 14.5 | 96.9 | $3 \cdot 1$ | $: 7$ |

ture on Groups.


TABLE
Average Quantily and Cost of Frood
(Eummese

11.

## comsumed per monith ber Family.

Families.) -


TABLE ${ }^{-}$
Average Quantity and Cost of Food ${ }^{\text {- }}$
(Burmese

| Income per anit. | Under Rs. 15. | $\begin{gathered} \text { Rs. } 15 \\ \text { and } \\ \text { under } \\ \text { Rs. } 20 . \end{gathered}$ | $\begin{gathered} \text { Rs. } 20 \\ \text { and } \\ \text { under } \\ \text { Rs. } 25 . \end{gathered}$ | Rs. 25 and under Rs. 30. | $\begin{gathered} \text { Rs. } 30 \\ \text { and } \\ \text { above. } \end{gathered}$ | All incomes: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families | 167 | 325 | 280 | 122 | 98 | 992. |
| Average number of units ... | $4 \cdot 24$ | 3.28 | $2 \cdot 65$ | 2.24 | 1.99 | 301 |
| Average monthly income ... |  |  |  |  |  |  |
|  | Quantity consumed per month per unil. |  |  |  |  |  |
| Rice ... Viss | $8 \cdot 83$ | 9.02 | $9 \cdot 69$ | 10.13 | 1042 | 9.34 |
| Pulses ... | '03 | . 05 | . 06 | 07 | $\cdot 12$ | . 05 |
| Sugar, refined :... ,* | . 02 | . 04 | . 15 | '14 | $\cdot 14$ | -08. |
| Gur ... * | 01 | . 01 | -01 | - 01 | 01 | '01 |
| Tea ... jbs | $\cdot 07$ | -07 | $\cdot 14$ | 13 | $\cdot 11$ | 10 |
| Coffee ... Ticals | . 02 | . 06 | '20 | '45 | - 30 | -10, |
| Fish, fresh ... Viss | 101 | 123 | 1-32 | 141 | 1.58 | 1.24 |
| Fish, salted, dry ... $\%$ | O8 | $\cdot 13$ | - 15 | 18 | ${ }^{20}$ | 13 |
| Fish, salted, wet. (ngapi) | '22 | $\cdot 25$ | '28 | 27 | '31 | 263 |
| Beef $\quad .$. | -49 | 77 | '90 | -98 | 113 | 78: |
| Mutton $\quad .$. | ... | "01 | $\because$ | 01 | . 01 |  |
| Fowls $\quad . .$. | $\cdots$ | 01 | $\cdot 02$ | . 04 | . 6 | . 02 |
| Pork ... * | . 03 | -06 | -10 | -12 | 17 | \% ${ }^{08}$ |
| Duck ... " | -00 |  | 01 | -01 |  |  |
| Dried meat ... | -03 | . 03 | . 02 | 04 | 04 | . 03 |
| Eggs ${ }^{\text {... No. }}$ | -06 | '29 | $\cdot 55$ | 79 | -59 | -36 |
| Mill ${ }_{\text {S }}$ condensed $\cdots$-. | -14 | ${ }^{-18}$ | 7.21 | -32 | $\cdots$ | -.48. |
| Salt $\quad \ldots$... Viss | .14 |  | -21 | ${ }_{\cdot} \cdot 13$ | '24 | 20 10 |
| Spices and other condiments | - | - | - | - | - | - |
| Potatoes . ... Viss | $\cdot 11$ | '17 | -19 | -24 | 24 | 17 |
| Onions la, | '35 | $\cdot 45$ | -56 | 63 | 67 | 48 |
| Fruit and other vegetables | - | - | $\cdots$ | - | - |  |
| Sesamum oil $\quad \ldots$ Viss | $\cdot 39$ | $\cdot 48$ | $\cdot 44$ | 61 | 70 | 47 |
| Other food ... ... | - | - | - | - | - |  |
| Food bought and consumed away from home:Tea <br> ... Cups | 8 | 12 | 16 | 17 | 21 | 13 |
| Coffee ... | $\cdots$ | $\ldots$ | .* | $\cdots$ | $\cdots$ | *** |
| Others | - | - | - | $=$ | - |  |
| - Total Food | - | -. | - | - | - | - |

NoTE -1 viss $=3.60$ lbs, and 1 tical $=0 i$ viss.
111.
consumed per month per Unit.
Families.)

| Under Rs. 15. | Rs. 15 and under Rs. 20. | $\begin{gathered} \text { Rs. } 20 \\ \text { and under } \\ \text { Rs. } 25 . \end{gathered}$ | Rs. 25 and under Rs. 30. | Rs. 30 and above. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 167 | 325 | 280 | 122 | 98 | 992 |
| $4 \cdot 24$ | $3 \cdot 28$ | 265 | 224 | 1.99 | 301 |
| Rs. A. $\mathbf{P}$. <br> 54115 | Rs. A. $P$, <br> 561311 | Rs. A. P.  <br> 59 3 3 | Rs. A. P. <br> 6010 | Rs. A. $\mathbf{P}$. <br> 65138 | Rs. A. P. <br> 5883 |
| Cost per month per unit. |  |  |  |  |  |
| 21111 | 21310 | 328 | 363 | 389 | 301 |
| 003 | 004 | 004 | 006 | 0011 | 004 |
| $0 \quad 02$ | 005 | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 017 | 017 | 0010 |
| 001 | 001 | 001 | 001 | 0 O 01 | 001 |
| 0010 | 011 | 0111 | 0111 | 0111 | 014 |
| $\cdots$ | - ${ }^{-}$ | 0 O 01 | 005 | 003 | 001 |
| 1006 | 159 | 1881 | 1106 | 1159 | 162 |
| 020 | 039 | 0411 | 0511 | 069 | 040 |
| 0310 | 047 | 054 | 0510 | 063 | 0410 |
| 084 | 0131 | 0157 | 115 | 1385 | 0135 |
| $\cdots$ | 001 | ... | 0 0 04 | 004 | 001 |
| 001 | 0 0 03 | 0 O 08 | 016 | 020 | 007 |
| 012 | 022 | 037 | 048 | 060 | 0210 |
| 0 0 01 | 002 | 003 | 005 | 001 | 002 |
| 008 | 009 | 009 | 0114 | 015 | - 010 |
| 0 0 01 | 003 | 0 O 0 | 088 | $00_{0} 07$ | 004 |
| 0 0 03 | 007 | 025 | 0211 | 036 | 015 |
| 005 | 006 | 008 | $0 \cdot 10$ | 009 | 007 |
| $0 \quad 07$ | 0 O 8 | 009 | 0011 | 010 | 009 |
| 024 | 0211 | $\begin{array}{lll}0 & 3 & 7\end{array}$ | 0410 |  |  |
| $0{ }_{0} 0$ | 0011 | 011 | 015 | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 0011 |
| 0110 | 025 | 030 | 034 | $\begin{array}{lll}0 & 3 & 3\end{array}$ | $\begin{array}{llll}0 & 2 & 7\end{array}$ |
| $\begin{array}{lll}0 & 6 & 5 \\ 0 & 9 & 3\end{array}$ | $\begin{array}{lrrr}0 & 8 & 5 \\ 0 & 11 & 4 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{rrrr}0 & 10 & 8 \\ 0 & 13 & 9 \\ 0 & 0 & 3\end{array}$ | $\begin{array}{lrr}0 & 12 & 2 \\ 0 & 14 & 9 \\ 0 & 0 & 4\end{array}$ | $\begin{array}{rrrr}0 & 14 & 2 \\ 1 & 0 & 8 \\ 0 & 0 & 10\end{array}$ | $\begin{array}{lrrr}0 & 9 & 3 \\ 0 & 12 & 3 \\ 0 & 0 & 3\end{array}$ |
| 067 | 01010 | 0138 | 0146 | 1211 | 0113 |
| 001 | ... | 001 | 00.5 | 002 | 001 |
| 0140 | 106 | 1 17 | 128 | 151 | 108 |
| 788 | 9511 | 11111 | 1262 | 131510 | 9150 |

Average Number of Arlicles of CLolning purchased per year Family
(Burmese

| Income per anit. | Under Rs. 15. | $\begin{aligned} & \text { Rer } 15 \\ & \text { and } \\ & \text { monder } \\ & \text { Rs. } 20 . \end{aligned}$ | Rs. 20 and minder Rs. 25. | Ans. 85 and under Rs. 30. | $\begin{gathered} \text { Rs. } 30 \\ \text { and } \end{gathered}$ abowe. | An |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families | 167 | 325 | 280 | 122 | 98 | 992 |
| Average number of men .. | 138 | 127 | 1.15 | 106 | 1.04 | 121 |
| Average number of women | 1.47 | 1.38 | 119 | 114 | 101 | 128 |
| Average number of children | 2-50 | 1.40 | 93 | -48 | -18 | 122 |
| Average monthly income ... |  |  |  |  |  |  |


IV.
awd Amerage Monthly Eypendilare por Family on theso Articles. Families.)

| Under Rs. 15. | $\begin{gathered} \text { Rs. } 15 \text { and } \\ \text { under Rs. } 20 \end{gathered}$ | Rs. 20 and under Rs. 25. | Re. 25 and under Rs. 30. | Rs. 30 and above. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 167 | 325 | 280 | 122 | 98 | 992 |
| 1.38 | 127 | $1 \cdot 15$ | 1.06 | 104 | 121 |
| 147 | 1.38 | 119 | 114 | 101 | $1 \cdot 28$ |
| $2-50$ | 1.40 | '93 | $\cdot 48$ | -18 | 122 |
| $\begin{array}{lll}\text { Rs. A. } & \text { P. } \\ 54 & 11 & 5\end{array}$ | $\begin{aligned} & \text { Rs. A. P. } \\ & 561311 \end{aligned}$ | Rs. A. <br> $\mathbf{P r}$  <br> $\mathbf{5 9}$ $\mathbf{3}$ | $\begin{aligned} & \text { Rs. A. P. } \\ & 60 \mathrm{~A} \end{aligned}$ | $\begin{array}{rrrr}\text { Rs. } & \text { A. } & \text { P. } \\ 65 & 13 & 8\end{array}$ | $\begin{gathered} \text { Rs. A. } \\ 58.8 \end{gathered}$ |
| Monthly expenditure per family. |  |  |  |  |  |
| $\begin{array}{lcc} \text { Rs } & \text { A. } & \text { P. } \\ 0 & 4 & 4 \\ 0 & 8 & 5 \\ 3 & 2 & 9 \\ 0 & 8 & 1 \\ 0 & 6 & 7 \\ 0 & 2 & 7 \\ 0 & 0 & 8 \\ 0 & 1 & 3 \\ 0 & 0 & 7 \\ 0 & 0 & 10 \\ 0 & 0 & 6 \end{array}$ | $\begin{array}{ccc}\text { Rs. } & \text { A. } & \text { P. } \\ 0 & 7 & 7 \\ 0 & 8 & 8 \\ 0 & 2 & 9 \\ 0 & 8 & 7 \\ 0 & 8 & 8 \\ 0 & 2 & 7 \\ 0 & 1 & 0 \\ 0 & 1 & 10 \\ 0 & 0 & 7 \\ 0 & 1 & 2 \\ 0 & 0 & 9\end{array}$ | $\begin{array}{cccc}\mathrm{Fa} & \text { A. } \\ 0 & 8 & 3 \\ 0 & 9 & 4 \\ 0 & 3 & 3 \\ 0 & 8 & 9 \\ 0 & 9 & 0 \\ 0 & 2 & 9 \\ 0 & 1 & 2 \\ 0 & 1 & 11 \\ 0 & 0 & 8 \\ 0 & 1 & 4 \\ 0 & 1 & 1\end{array}$ | $\begin{array}{cccc}\text { Rs. } & \text { L } & \text { P. } \\ 0 & 8 & 8 \\ 0 & 9 & 5 \\ 0 & 3 & 6 \\ 0 & 8 & 10 \\ 0 & 9 & 2 \\ 0 & 2 & 10 \\ 0 & 2 & 0 \\ 0 & 2 & 4 \\ 0 & 0 & 8 \\ 0 & 1 & 4 \\ 0 & 1 & 7\end{array}$ | $\begin{array}{rrrr}\text { Rs. } & \text { A. } & \text { P. } \\ 0 & 10 & 6 \\ 0 & 10 & 1 \\ 0 & 3 & 8 \\ 0 & 10 & 0 \\ 0 & 10 & 8 \\ 0 & 3 & 0 \\ 0 & 3 & 3 \\ 0 & 2 & 7 \\ 0 & 0 & 9 \\ 0 & 1 & 10 \\ 0 & 2 & 0\end{array}$ | $\begin{array}{rcc} \text { Rs. } & \text { R. } \\ 0 & 7 & 8 \\ 0 & 9 & 1 \\ 0 & 3 & 1 \\ 0 & 8 & 9 \\ 0 & 8 & 8 \\ 0 & 2 & 7 \\ 0 & 1 & 4 \\ 0 & 1 & 11 \\ 0 & 0 & 7 \\ 0 & 1 & 3 \\ 0 & 1 & 1 \end{array}$ |
| 246 | 2122 | 2156 | 324 | 3104 | 2140 |
| $\begin{array}{rrr}0 & 4 & 8 \\ 0 & 8 & 4 \\ 0 & 3 & 9 \\ 0 & 8 & 11 \\ 0 & 1 & 11 \\ 0 & 1 & 6 \\ 0 & 0 & 8 \\ 0 & 0 & -4 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{lll}0 & 7 & 0 \\ 0 & 8 & 9 \\ 0 & 4 & 2 \\ 0 & 9 & 8 \\ 0 & 2 & 8 \\ 0 & 2 & 3 \\ 0 & 0 & 8 \\ 0 & 0 & 6 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{rrrr}0 & 7 & 11 \\ 0 & 8 & 4 \\ 0 & 4 & 3 \\ 0 & 9 & 7 \\ 0 & 2 & 8 \\ 0 & 2 & 5 \\ 0 & 0 & 6 \\ 0 & 0 & 7 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{ccc}0 & 9 & 1 \\ 0 & 8 & 8 \\ 0 & 4 & 8 \\ 0 & 9 & 10 \\ 0 & 2 & 11 \\ 0 & 2 & 11 \\ 0 & 0 & 5 \\ 0 & 0 & 9 \\ 0 & 0 & 4\end{array}$ | $\begin{array}{rrrr}0 & 10 & 2 \\ 0 & 8 & 3 \\ 0 & 5 & 6 \\ 0 & 10 & 7 \\ 0 & 3 & 1 \\ 0 & 3 & 0 \\ 0 & 0 & 4 \\ 0 & 0 & 9 \\ 0 & 0 & 4\end{array}$ | $\begin{array}{lll}0 & 7 & 5 \\ 0 & 8 & 6 \\ 0 & 4 & 4 \\ 0 & 9 & 7 \\ 0 & 2 & 7 \\ 0 & 2 & 4 \\ 0 & 0 & 7 \\ 0 & 0 & 7 \\ 0 & 0 & 2\end{array}$ |
| 1142 | 2310 | 245 | 277 | 2100 | 241 |
| $\begin{array}{lll}0 & 1 & 7 \\ 0 & 5 & 7 \\ 0 & 1 & 6 \\ 0 & 3 & 8 \\ 0 & 1 & 4 \\ 0 & 3 & 4 \\ 0 & 3 & 6 \\ 0 & 1 & 4 \\ 0 & 0 & 9 \\ 0 & 0 & 11 \\ 0 & 0 & 3 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{rrr}0 & 1 & 11 \\ 0 & 3 & 7 \\ 0 & 0 & 7 \\ 0 & 1 & 6 \\ 0 & 0 & 6 \\ 0 & 2 & 2 \\ 0 & 1 & 10 \\ 0 & 0 & 4 \\ 0 & 0 & 5 \\ 0 & 0 & 7 \\ 0 & 0 & 2 \\ 0 & 0 & 1 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{lll} 0 & 1 & 8 \\ 0 & 3 & 4 \\ 0 & 0 & 6 \\ 0 & 1 & 4 \\ 0 & 0 & 4 \\ 0 & 2 & 0 \\ 0 & 1 & 8 \\ 0 & 0 & 4 \\ 0 & 0 & 5 \\ 0 & 0 & 5 \\ 0 & 0 & 1 \\ 0 & 0 & 1 \\ 0 & 0 & 1 \end{array}$ | $\begin{array}{lll}0 & 1 & 2 \\ 0 & 1 & 6 \\ 0 & 0 & 2 \\ 0 & 1 & 3 \\ 0 & 0 & 2 \\ 0 & 1 & 3 \\ 0 & 1 & 3 \\ 0 & 0 & 4 \\ 0 & 0 & 5 \\ 0 & 0 & 4 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{lll}0 & 1 & 2 \\ 0 & 1 & 5 \\ 0 & 0 & 2 \\ 0 & 1 & 1 \\ 0 & 0 & 2 \\ 0 & 1 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 3 \\ 0 & 0 & 6 \\ 0 & 0 & 6 \\ 0 & 0 & 1 \\ 0 & 0 & 1 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{lll}0 & 1 & 8 \\ 0 & 3 & 5 \\ 0 & 0 & 7 \\ 0 & 1 & 8 \\ 0 & 0 & 6 \\ 0 & 2 & 1 \\ 0 & 1 & 11 \\ 0 & 0 & 6 \\ 0 & 0 & 6 \\ 0 & 0 & 7 \\ 0 & 0 & 2 \\ 0 & 0 & 1 \\ 0 & 0 & 1\end{array}$ |
| 1710 | 0139 | 0124 | 0711 | 079 | 0139 |

[^38]TABLE
Average Number of Articles of Clothing purchased per year per Man, per per Man, per Woman
(Burmese

| Income per unit. | Under <br> Rs. 15. |  | Rs. 20 and under Rs. 25 |  | $\text { Rs. } 30$ and above. | $\underset{\text { Ancomes. }}{\text { All }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families ... | 167 | 325 | 280 | 122 | 98 | 992 |
| Average number of men ... | 138 | 127 | 115 | 106 | 104 | 122 |
| Average number of women | 147 | 138 | 119 | 114 | 101 | 128 |
| Average number of children | $2 \cdot 50$ | 140 | -93 | '48 | -18 | 1.22 |
| Average monthly income ... |  |  |  |  |  |  |
| MEn's Clote | Number of articles pùrchased per year per man. |  |  |  |  |  |
| Longyis, silk .as. No. | -20 | $\cdot 38$ | -44 | -49 | '56 | 39 |
| Longyis, cotton ... , | 3.33 | $3 \cdot 51$ | 368 | 3.61 | $3 \cdot 81$ | $3 \cdot 55$ |
| Banians ... ., | 176 | 1.82 | $2 \cdot 18$ | $2 \cdot 50$ | $2 \cdot 61$ | 2.05 |
| Shirts ... . | 2.36 | 2.72 | 2.85 | 296 | $3 \cdot 32$ | $2 \cdot 76$ |
| Jackets $\quad .$. | -88 | 112 | $1 \cdot 12$ | $1 \cdot 23$ | 1.45 | 111 |
| Gaungbaungs ... | $\cdot 66$ | $\cdot 70$ | -78 | -85 | '90 | $\cdot 71$ |
| Sboes | -10 | $\cdot 10$ | $\cdot 13$ | 19 | $\cdot 25$ | $\cdot 13$ |
| Sandals, leather* ... | 47 | 70 | 78 | 101 | 1.08 | $\cdot 74$ |
| Sandals, wooden ... | 91 | -95 | 1.28 | $1 \cdot 39$ | 1-59 | 106 |
| Umbrellas $\quad .$. No. | $\cdot 17$ | -26 | -31 | $\cdot 30$ | . 35 | $\cdot 27$ |
| Other clothing ... |  |  | - | - | - | - |
| Total Men's Clothing | - |  | - | - | - | - |
| - | Number of articles purchased per year per worman. |  |  |  |  |  |
| Wourn's Clothing. ${ }_{\text {Longis, }}$ | -22 | $\cdot 35$ | $\cdot 45$ | '51 | 63 | -39 |
| Longyis, sily | 3.07 | $3 \cdot 37$ | 370 | 3.96 | 411 | 3.51 |
| $\begin{array}{ll}\text { Longyis, coton } \\ \text { Bodices } & \text {... } \\ \end{array}$ | 259 | 288 | $3 \cdot 33$ | 3.66 | $4 \cdot 70$ | $3 \cdot 18$ |
| Jackets | 3.29 | $3 \cdot 44$ | 382 | 4.04 | 468 | 364 |
| Pawas ... | -29 | '40 | 45 | 50 | $\cdot 55$ | -41 |
| Sandals, leather* ... Pairs | -56 | -81 | 100 | 123 | 1.43 | 91 |
| Sandals, wooden ... , | 100 | 1.00 | -83 | . 66 | $\cdot 52$ | . 92 |
| Umbrellas ... No. | $\cdot 11$ | $\cdot 15$ | '19 | -21 |  | $\pm$ |
| Other clothing ... |  | - | - |  |  |  |
| Total Women's Cluthing - | - | - | - | - | - | - |
|  | Number of articles purchased per year per child. |  |  |  |  |  |
| Chlldren's Clothing. <br> Longyis, silk ... No. | 08 | $\cdot 18$ | $\cdot 22$ | -28 | - 62 | 17 |
| Longyis, cotton ... ." | 1.96 | $2 \cdot 16$ | 2.95 | $2 \cdot 46$ | 608 | $2 \cdot 37$ |
| Eanians ... ", | -85 | -58. | 72 | '32 | 94 | . 66 |
| Shirts ... | 1.07 | 75 | -87 | 122 | 274 | -88 |
| Bodices ... " | $\cdot 85$ | -56 | 3 | $\cdot 30$ | 91 | -58 |
| Jackets ... " | 117 | 1.24 | 163 | 173 | 364 | 1.35 |
| Baby frocis . ... | 252 | $2 \cdot 11$ | 2.54 | 296 | 6.45 | $\begin{array}{r}2.42 \\ \hline 19\end{array}$ |
| Baby caps ... | 27 | 11 | $\cdot 18$ | 25 | - 53 | $\cdot 19$ |
| Shoes - ... Pairs | $\cdot 12$ | -11 | $\cdot 18$ | $\cdot 25$ | $\cdot 56$ | $\cdot 15$ |
| Sandals, leather* ... | 27 | $\cdot 30$ | $\cdot 32$ | -38 | 139 | -34 |
| Sandals, wooden ... | $\cdot 28$ | $\cdot 31$ | $\cdot 22$ | $\cdot 25$ | 1.33 | -39 |
| Umbrellas $\quad .$. No. | '01 | . 02 | '02 | 02 | $\cdot 14$ | 02 |
| Other clothing ... | - | - | - | - | $\cdots$ |  |
| . Total Children's Clothing | - |  | - | - | - | - |

V.

Woman and per Child, and Average Monithly Expenditure on these Articles and per Child.
Families.)

| Under Rs. 15. | Rs. 15 and under Rs. 20. | Rs. 20 and under Rs. 25. | Rs. 25 and under Rs. 30. | Rs. 30 and above. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 167 | 323 | 280 | 122 | 98 | 992 |
| 1.38 | 127 | 115 | 206 | 104 | $:-21$ |
| 144 | 1.38 | 119 | 114 | 101 | 1-28 |
| 250 | 140 | 93 | $\cdot 48$ | $\cdot 18$ | 122 |
| $\begin{array}{crr}\text { Rs. A. } & \text { P. } \\ \text { 54. } & 11 & 5\end{array}$ |  | $\begin{array}{llll}\text { Rs. A. } & \text { P. } \\ 59 & 3 & 5\end{array}$ | $\begin{array}{ccc}\text { Rs. A. } & \text { P } \\ 60 & 10 & 2\end{array}$ | $\begin{aligned} & \text { Rs. A. P. } \\ & 65138 \end{aligned}$ | $\begin{array}{lll} \text { Rs. } & \text { A. } \\ 58 & 8 & 3 \end{array}$ |
| Monthly erpenditure per man. |  |  |  |  |  |
| $\begin{array}{rrr} 0 & 3 & 1 \\ 0 & 6 & 1 \\ 0 & 2 & 0 \\ 0 & 5 & 10 \\ 0 & 4 & 9 \\ 0 & 1 & 11 \\ 0 & 0 & 6 \\ 0 & 0 & 11 \\ 0 & 0 & 5 \\ 0 & 0 & 7 \\ 0 & 0 & 4 \end{array}$ | $\begin{array}{llr} 0 & 6 & 0 \\ 0 & 6 & 10 \\ 0 & 2 & 2 \\ 0 & 6 & 9 \\ 0 & 6 & 10 \\ 0 & 2 & 0 \\ 0 & 0 & 9 \\ 0 & 1 & 5 \\ 0 & 0 & 5 \\ 0 & 0 & 11 \\ 0 & 0 & \pi \end{array}$ | $\begin{array}{ccc} 0 & 7 & 2 \\ 0 & 8 & 1 \\ 0 & 2 & 10 \\ 0 & 7 & 7 \\ 0 & 7 & 10 \\ 0 & 2 & 5 \\ 0 & 1 & 1 \\ 0 & 1 & 8 \\ 0 & 0 & 7 \\ 0 & 1 & 2 \\ 0 & 0 & 11 \end{array}$ | $\begin{array}{rrr}0 & 8 & 2 \\ 0 & 8 & 11 \\ 0 & 3 & 4 \\ 0 & 8 & 4 \\ 0 & 8 & 8 \\ 0 & 2 & 8 \\ 0 & 1 & 11 \\ 0 & 2 & 3 \\ 0 & 0 & 7 \\ 0 & 1 & 3 \\ 0 & 1 & 6\end{array}$ | $\begin{array}{rrr} 0 & 10 & 1 \\ 0 & 9 & 8 \\ 0 & 3 & 7 \\ 0 & 9 & 7 \\ 0 & 10 & 3 \\ 0 & 2 & 11 \\ 0 & 3 & 2 \\ 0 & 2 & 6 \\ 0 & 0 & 9 \\ 0 & 1 & 9 \\ 0 & 1 & 11 \end{array}$ | $\begin{array}{lll} 0 & 6 & 4 \\ 0 & 7 & 6 \\ 0 & 2 & 7 \\ 0 & 7 & 3 \\ 0 & 7 & 2 \\ 0 & 2 & 2 \\ 0 & 1 & 1 \\ 0 & 1 & 7 \\ 0 & 0 & 6 \\ 0 & 1 & 0 \\ 0 & 0 & 11 \end{array}$ |
| 1105 | 229 | 294 | 2156 | 381 | 260 |


| Monthly expenditure per woman. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 031 | 050 | 068 | 0711 | 0101 | 0510 |
| 0 O 58 | . 064 | 070 | 077 | 082 | 068 |
| 027 | 030 | 037 | 041 | 055 | 035 |
| 061 | 0611 | 0881 | 087 | 0106 | 076 |
| 0 I 4 | 0111 | 023 | 027 | 031 | 020 |
| 010 | 017 | 021 | 026 | 030 | 0110 |
| 005 | 006 | 005 | 005 | 004 | 005 |
| 003 | 004 | 006 | 008 | 009 | 005 |
| 001 | 002 | 002 | 003 | 004 | 0 0 1 |
| 147 | 1100 | 1147 | 229 | 297 | 1122 |
| Monthly expenditure per child. |  |  |  |  |  |
| 0 0 08 | $0 \begin{array}{lll}0 & 1 & 4\end{array}$ | 0110 | 025 | 066 | 014 |
| 023 | 027 | - 37 | 032 | 0711 | 0210 |
| $\begin{array}{lll}0 & 0 & 7\end{array}$ | 0 O 05 | 006 | 004 | 0011 | 066 |
| 016 | 011 | 015 | 027 | 060 | 015 |
| 086 | 004 | 004 | 004 | 0011 | 005 |
| $\begin{array}{lll}0 & 1 & 4\end{array}$ | 017 | 022 | 027 | 060 | 018 |
| 015 | 0114 | 0110 | 027 | 060 | 017 |
| 006 | 0 0 03 | $\begin{array}{llll}0 & 0 & 4\end{array}$ | 088 | 015 | 005 |
| 0 0 0 | 0 0 4 | 005 | 0010 | $\bigcirc 29$ | 005 |
| 005 | 0 0 0 | 005 | 008 | 029 | 006 |
| 01 | 0 0 01 | 0 0 1 | 002 | 005 | 002 |
| ... | 001 | 0 |  | 005 | 001 |
|  | 00 | 001 | .. | 0011 | 001 |
| 096 | 0910 | 0133 | 106 | 2111 | 0113 |

alippers.

TABLE VI.
Average Monthly Expenditure per Family on Rent, Fuel and Lightimg Household Requisites and Miscellaneous Ilems.
(Burmese Families.)

| Income per unit. | Under <br> Rs. 15. | $\left\|\begin{array}{c} \text { Rs. } 15 \\ \text { and under } \\ \text { Rs. } 20 . \end{array}\right\|$ | Rs. 20 and under Rs. 25 . | $\begin{gathered} \text { Rs. } 25 \\ \text { and under } \\ \text { Rs. } 30 . \end{gathered}$ | $\begin{aligned} & \text { Rs. } 30 \\ & \text { and } \\ & \text { above. } \end{aligned}$ | AH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families ... | 167 | 325 | 280 | 122 | 98 | 992 |
| Average number of units | 434 | 328 | 265 | 224 | 199 | 3.01 |
| Average monthly income | $\begin{array}{ll\|l} \hline \text { Rs. } & \text { A. } & \text { P. } \\ 54 & 11 & 5 \end{array}$ | Rs. A. P. <br> 561311 | $\begin{array}{ccc} \text { Rs. } & \text { A. } \\ \mathbf{5 9} & \mathbf{P} & 3 \end{array}$ | $\begin{array}{lc} \text { Rs. A. } & P \\ 60 & 10 \\ 2 \end{array}$ | $\begin{array}{ccc} \text { Rs. A. } & \text { P. } \\ 65 & 13 & 8 \end{array}$ | $\begin{array}{rll} R 3 & A & P \\ 58 & 8 & 3 \end{array}$ |

Monthly expenditure per family.

| Rent | 699 | 730 | 8411 | 9608 | 912 | 7143 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Firewood | 1910 | 111 | 1117 | 112 | 113 | 111 |
| Kerosene oil | 0136 | 0147 | 015 | 0150 | 015 | 014 |
| Electric light | 015 | 00 | 00 | 00 | 01 | 0.0 |
| Other fuel and lighting | 036 | 04 | 04 | 05 | 04 | 04 |
| Total Fuel and Lighting | 212 | 214 | 215 | 3011 | 32 | 215 |
| Cots or charpoys | $\begin{array}{ll}0 & 0 \\ 0 & 3\end{array}$ | $\begin{array}{llll}0 & 0 & 1 \\ 0 & 2 & 10\end{array}$ | $\begin{array}{ccc}0 & 0 & 2 \\ 0 & 2 & 10\end{array}$ | $\begin{array}{llll}0 & 0 & 3 \\ 0 & 2 & 11\end{array}$ | $\begin{array}{lll}0 & 0 & 6 \\ 0 & 3 & 3\end{array}$ | $\begin{array}{llll}0 & 0 & 2 \\ 0 & 2 & 11\end{array}$ |
| Mattresses | 087 | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 0 1 8 | 02 | 02 | $0 \cdot 1$ |
| Blanke | 042 | 03 | 035 | 03 | 03 | 03 |
| Sheets | $\begin{array}{llll}0 & 0 & 9\end{array}$ | 01 | $0 \cdot 15$ | 01 | 04 | 0 |
| Pillows and pillow cases | $\begin{array}{ll}0 & 3\end{array}$ | 03 | 03 | $\begin{array}{llll}0 & 3 & 8\end{array}$ | 04 | 0 |
| Mosquite nets | 01 | 01 | 02 | 02 | 0211 | 0 |
| Cooking pots | 042 | 04 | 04 | 04 | 0411 | 0 |
| Furniture | 023 | 03 | 046 | 05 | 05 | 0 |
| Total Household Requisites. | 13 | 16 | 18 | 110 | 113 | 17 |
| Barber ... ... | 05 | 0311 | 39 | 3 | 0310 | 0311 |
| Dhobi (washerman) | 07 | 0108 | 01111 | 013 | 122 | 0118 |
| Soap and soaprut | 08 | 08 | 072 | 07 | 08 | 079 |
| Cheroots | 0 \% | 080 | 0710 | 05 | 07 | 075 |
| Sebawleik | 110 | 111 | 1125 | 115 | 115 | 1124 |
| Cigarettes | 00 | 00 | 022 | 04 | 06 | 0.114 |
| Other preparations of tobacco | $002$ |  |  | 022 |  |  |
| Betel | 0117 | 0124 | 011 9, | 0114 | 013 | 0120 |
| Amusements | 055 | 07 | 0138 | 112 | 18 | 0118 |
| Hair oil | 03 | 04 | 036 | 04 | 0310 | 0310 |
| Interest on debts | 06 | (1) 3 | 07 \% | 075 | 063 | 0511 |
| Religious festivals | 01310 | 106 | 108 | 10011 | 145 | 106 |
| \#tedicires | 01 | 01 | 020 | 02 | 026 | 019 |
| Education | 04 | 052 | (1)1 | 03 | 020 | 042 |
| Travelling expenses to and from work) | 09 | 01210 | 10 | 013 | $\begin{array}{llll}1 & 8 & 3\end{array}$ | 0145 |
| Others | 00 | 0111 | 0 I | 010 | 0105 | 036 |
| Total Míscellaneous ... | 15 | 1 | \% 10 | 98 | It it 4 | 879 |

## TABLE VII.

Average Monthly Expenditure per Unit on Reni, Fual and Lighling, Household Requisites and Miscellaneous Items.

## (Burmese Families.)

| Income per unit. | Under Rs. 15. | Rs. 15 and under ks. 20. | Rs. 20 and under Rs. 25. | Rs, 25 and under Rs. 30. | $\left\lvert\, \begin{gathered} \text { Rs. } 30 \\ \text { and above } \end{gathered}\right.$ | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families | 167 | 325 | 280 | 122 | 98 | 992 |
| Average number of units | 424 | 328 | 2.65 | 224 | 159 | $90 \%$ |
| Average monthly income | $\begin{aligned} & \text { Rs. A. } \\ & 5411 \\ & 54 \end{aligned}$ | Rs. A.  <br> 56  <br> 56 13 | $\begin{array}{lll} \text { Rs. } & A_{1} & \text { P } \\ 59 & 3 & 3 \end{array}$ | $\begin{aligned} & \text { Rs. A. P. } \\ & 6010 \quad 2 \end{aligned}$ | $\begin{array}{lll} \text { Rs. } & \text { A. } & \text { P. } \\ 65 & 13 & 8 \end{array}$ | $\begin{array}{lll} \text { Rs. } & \text { A. } \\ \hline 58 & 8 & 3 \end{array}$ |

Monthly expenditare per unit.

| Rent | 1811 |  | 322 | 407 | 4147 | 2 | 911 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Firewood | 06 | 08 | 0105 | 0128 | 01410 | 0 | 91 |
| Kerosene oil :.. | $\begin{array}{llll}0 & 3 & 2\end{array}$ | 0 | $\begin{array}{llll}0 & 5 & 8\end{array}$ | 06 | 0711 | 0 | 411 |
| Etectric light | $\begin{array}{llll}0 & 0 & 4\end{array}$ | $\begin{array}{llll}0 & 0 & 1\end{array}$ | 0 | 00 | 0 | 0 | 03 |
| Olher fuel and lighting <br> Total Frel and Lighting | 00010 | $\begin{array}{lll}0 & 1 & 3\end{array}$ | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 02 | 023 | 0 | 1. 5 |
|  | 0105 | 014 | 110 | 1510 | 196 |  | 15 |
| Cots or charpoys Mats | 0 | 010 | $\begin{array}{ll}0 & 0 \\ 0 & 1\end{array}$ | $\begin{array}{ll}0 & 0 \\ 0 & 1\end{array}$ | $\begin{array}{lll}0 & 0 & 3 \\ 0 & 1 & 8\end{array}$ | 0 | $\begin{array}{ll}0.1 \\ 1 & \\ 0\end{array}$ |
| Mattresses | $\begin{array}{lll}0 & 0 & 2\end{array}$ | 0 | 0 | $\begin{array}{llll}0 & 1 & 0 & 11\end{array}$ | 0 |  | 1 0 |
| Blankets | 010 |  | $\begin{array}{llll}0 & 1 & 3\end{array}$ | 016 | 0.110 | 0 | 13. |
| Sheets | 002 | 0 O 0 | 000 | 0 0 9 | 010 | 0 | 05 |
| Pillows and pillow cases | 0010 | 0 | 0 1 14 | 0 1-8 | 02 | 0 | 1 |
| Mosquito nets | 0 | 006 | 0 0111 | 012 | 01 | 0 | 08 |
| Cooking pots | 010 | 01 | $\begin{array}{lll}0 & 1 & 8\end{array}$ | 0220 | 02.5 | 0 | 16 |
| Furniture | $0 \quad 06$ | 01 | $\begin{array}{lll}0 & 1 & 8\end{array}$ | $\begin{array}{llll}0 & 2 & 4\end{array}$ | $\bigcirc 2^{*} 9$ | 0 | 14 |
| Tolal Household Requisites | 047 | 69 | 092 | 0119 | 0148 | 0 | 710 |
| Barber ...: | $\begin{array}{llll}0 & 1 & 2\end{array}$ | $\begin{array}{lll}0 & 1 & 2 \\ 0 & 3 & \end{array}$ | $\begin{array}{lll}0 & 1 & 5\end{array}$ | 01 | 0111 | 0 | ${ }^{1} 4$ |
| Dhobi (washerman) | $\begin{array}{llll}0 & 1 & 10\end{array}$ | $\begin{array}{llll}0 & 3 & 3\end{array}$ | 0848 | 06 | 092 | 0 | 315 |
| Soap and soapnut | 0 | 026 | $\begin{array}{llll}0 & 2 & 9\end{array}$ | 03 | 040 | 0 | 27 |
| Cheroots. | 0 O 1111 | $\begin{array}{lll}0 & 2 & 5 \\ 0\end{array}$ | 02111 | $\begin{array}{llll}0 & 2 & 5\end{array}$ | 0 | 0 | 26 |
| Sebawleik | 0663 | 0 \% | 0109 | 01311 | 01510 | 0 | 95 |
| Cigarettes . $\quad$. |  | 0 O 01 | 0010 | 0111 | 0 | 0 | 08 |
| Other preparations of tobacco |  | $0 \cdot 0$ |  |  | 02 |  | 03 |
| Betel | $\begin{array}{lll}0 & 2 & 9\end{array}$ | 039 | 045 | $0 \begin{array}{lll}0 & 5 & 1\end{array}$ | 068 |  |  |
| Amusements | $\begin{array}{llll}0 & 1 & 3\end{array}$ | $\begin{array}{lll}0 & 2 & 2\end{array}$ | $\begin{array}{llll}0 & 5 & 2\end{array}$ | $\begin{array}{lll}0 & 7 & 8\end{array}$ | 0123 |  | 311 |
| Hair oil | 0 | $\begin{array}{llll}0 & 1 & 3\end{array}$ | $0_{0}^{0} 12145$ | 0 | 0111 |  | 13 |
| Interest on debts | $\begin{array}{llll}0 & 1 & 5\end{array}$ | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 0211 | 03 | 03 | 0 | 20 |
| Religious festivals | $\begin{array}{lll}0 & 3 & 3\end{array}$ | 0 | 064 | 07 | 010 |  | 5 |
| Medicines | $\begin{array}{llll}0 & 0 & 3\end{array}$ | 006 | 009 | 010 | $\begin{array}{llll}0 & 1 & 3\end{array}$ | 0 | 07 |
| Education | $\begin{array}{llll}0 & 1 & 0\end{array}$ | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 016 | 01 | 0 1 0 | 0 | 15 |
| Travelling expenses (to and from work! | $\begin{array}{llll}0 & 2 & 2\end{array}$ |  | $\begin{array}{lll} 0 & 6 & 2 \end{array}$ | 060 | 0122 | , | 49 |
| Others | 0001 | $0 \quad 07$ | 00 | 0410 | 05 | 0 | 2 |
| Total Miscellaneous ... | 1102 |  | 34 | 447 | 5140 |  | 131 |

## ( 108 )

TABLE VIII.
Average Quantity and Cost of Food consumed per month per Family, averages being given for all Families and for Families Purchasing the Article.
(Burmese Families.)

| Number of families | $\ldots$ | $\ldots$ | ... | 992 |
| :--- | :--- | :--- | :--- | :--- |
| Average number of units | $\ldots$ | $\ldots$ | ... | 301 |
| Average monthly income | $\ldots$ | $\ldots$ | $\ldots$ | Rs. $58-8-3$ |


| Item. | All families. |  | Price of article. | Families purchasing. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity consumed per month per family | Monthly expenditure per family. |  | Percentage of all families. | Quantity consumed per month per family | Monthly expenditure per family. |
|  |  | Rs. A. P. | Rs. A. P. |  |  | Rs. A. P. |
| -Rice ... Viss | 28.10 | $9{ }^{9}$ | $\begin{array}{lll}0 & 5 & 2\end{array}$ | 1000 | 28.10 | 908 |
| -Sugar, refined ... | . 23 | 026 | 01010 | 157 | 148 | 0159 |
| Gur | .03 | 0 | 0884 | 12.9 | -24 | 018 |
| Tea $\quad . .0$ lbs. | -29 | 041 | 0142 | $35 \cdot 2$ | . 82 | 0118 |
| Coffee ... Ticals | 40 | $\begin{array}{llll}0 & 0 & 3\end{array}$ | 008 | $3 \cdot 8$ | 11.00 | 07 |
| . Fish, fresh ... Viss | 3.74 | $4 \begin{array}{llll}4 & 2 & 9\end{array}$ | 1110 | 998 | 3.75 | 4211 |
| Fish, salter, dry | 40 | 0122 | 1145 | 687 | $\cdot 58$ | 118 |
| Fish, salted, wet (ngapi) | $\cdot 77$ | 0145 | 129 | 99.0 | 78 | 0147 |
| Beef | $2 \cdot 35$ | 285 | $1 \begin{array}{lll}1 & 1 & 2\end{array}$ | 82.6 | 285 | 3011 |
| Mutton | . 01 | 004 | 2184 | 1.0 | 70 | 1136 |
| Fowls | -05 | 0 188 | $2 \begin{array}{lll}2 & 1 & 4\end{array}$ | 8.4 | '56 | 1311 |
| Pork | 23 | 0885 |  | 41.6 | $\cdot 55$ | 143 |
| 'Duck | 01 | $\begin{array}{lll}0 & 0 & 7\end{array}$ | 3104 | 29 | 42 | 126 |
| Dried meat | . 09 | 025 | ( 1010 | 22.9 | . 38 | 0108 |
| Eggs $\ldots$ No. | 107 | 0011 | 0010 | 10.3 | 1056 | 087 |
| Milk, condensed - | - | 0 | - | 107 | - | 269 |
| Salt ... Viss | $\checkmark 39$ | $\begin{array}{lll}0 & 1 & 9\end{array}$ | 0300 | 98.5 | -54 | 019 |
| Tamarind ... | -29 | 022 | 076 | 91.5 | $\cdot 32$ | 024 |
| -Spices and other condiments ... | - | 0910 |  | $100 \cdot 0$ | - | 0910 |
| Potatoes . ... Viss | -51 | 029 | 0 | 65.6 | 78 | $0{ }_{0} 4^{4}$ |
| Onions ... | 146 | 0710 | 054 | 99.4 | 1.47 | 0710 |
| Fruit and other vegetables | - | 11110 | - | 98.7 | - | 1122 |
| Sesamum oil ... Viss | 142 | $\begin{array}{llll}2 & 4 & 5\end{array}$ | $19 *$ | 99.8 | 143 | 246 |
| Other food | - | -18 | - | - | - | - |
| Food bought and consumed away from home :- |  |  |  |  |  |  |
| Tea ... Cups | 39 | $2 \begin{array}{lll}2 & 2\end{array}$ | 0 | 67.5 | 58 | 326 |
| Coffee ... | ... | $\begin{array}{llll}0 & 0 & 4 \\ 3 & \end{array}$ | 0011 | 11 | 33 | 1150 |
| Others |  | 322 | - | 971 | - | 338 |
| Total Food - | - | 29146 | - | 一. | - | - |

Notr. -1 viss $=\mathbf{3}^{\mathbf{6}} \mathbf{6 0} \mathrm{lbs}$. and 1 tical $=\mathbf{0 1}$ viss.

TABLE IX.
Average Number of Articles of Clothing purchased per year per Family. and Average Monthly Expendilure per Family on these Articles; -averages being given for all Families and for Families purchasing the Article.
(Burmese Families.)


## TABLE $\mathbf{X}$

Average Mouthiy Expendilure per Family on Rent, Fuel, and Lighting, Household Requiaites and corscin Miscellaneous Items, averages being given for all Families and for Families purchasing the Article.
(Burmese Families.)


STATISTICAL TABLES.
B.-Indian Single Budgets.


Percentage Expendi

| Under Rs. 20 |  | $55 \cdot 5$ | 71 | 68 |
| :---: | :---: | :---: | :---: | :---: |
| Rs. 20 and under Rs. 25 ... |  | 55.8 | $6 \%$ | $7 \cdot 4$ |
| Rs. 25 and under Rs. 30 |  | 53.5 | 64 | $7 \cdot 4$ |
| Rs. 30 and under Rs. 35 |  | 53.3 | 60 | $7 \cdot 4$ |
| Rs. 35 and under Rs. 40 |  | 52.4 | 60 | $7 \cdot 4$ |
| Above Rs. 40 |  | 50.4 | 56 | $7 \cdot 8$ |
| All incomes (Tamils, Telugus and Uriyas). |  | 53.4 | 6.2 | $7 \cdot 4$ |
| All incomes (Tamils) |  | 540 | 5.9 | $7 \cdot 4$ |
| All incomes (Telugus) |  | 53.6 | 62 | 7.4 |
| All incomes (Uriyas) |  | 51.2 | 67 | 79 |

XI.

Expendilure of Single Men.
and Uriyas.)

| expenditure on |  |  | Total expenditure. | Balance of income over expenditure. | Remittance to dependants. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fuel and Lighting. | Household Requisites. | Miscellaneous. |  |  |  |
| Rs. A. P. | Rs. A. P. | Rs. Ar P. | Rs. A. P. | Rs. A. P. | Rs. A. P. |
| 0127 | $\begin{array}{lll}0 & 4 & 5\end{array}$ | 349 | 14211 | 3147 | 372 |
| 0133 | 0554 | 3131 | 1678 | 5663 | $3{ }^{3} 48$ |
| 0148 | 061 | $4{ }^{4} 97$ | 1818 | 861 | 6108 |
| 0157 | 066 | 51011 | 21.34 | $\begin{array}{lll}10 & 4 & 3\end{array}$ | 8.13 |
| 103 | 072 | 5154 | 21120 | 1497 | 1062 |
| 126 | 079 | 8910 | 28 514 | 1815 | 13124 |
| 0150 | 063 | 522 | 19910 | 91011 | 778 |
|  | 067 | 482 | 17123 | 9115 | $611 \cdot 4$ |
| 0150 | 063 | 526 | 191110 | 930 | $7 \cdot 4 \cdot 9$ |
| 0155 | 068 | 581 | 2028 | 14137 | $10 \quad 37$ |

Percentages of Income.

| $4 \cdot 3$ | 1.5 | 182 | 78.4 | 21.6 | 19.1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3 \cdot 8$ | $1 \cdot 5$ | 17.5 | $75 \cdot 4$ | 24.6 | $15 \%$ |
| $3 \cdot 5$ | 14 | 17.4 | $68 \cdot 3$ | 317 | 25.2 |
| 31 | $1 \cdot 3$ | 161 | 67.4 | 32.6 | $25 \cdot 7$ |
| 2.8 | 12 | 164 | 5978 | 402 | 28.6 |
| $2 \cdot 5$ | 10 | 18.6 | 61.0 | 39.0 | 29.7 |
| 3.2 | 1.3 | $12 \cdot 5$ | 670 | 331 | 25.5 |
| $3 \cdot 2$ | 15 | 16.4 | 64.7 | 35.3 | $24 \cdot 4$ |
| $3 \cdot 2$ | 1.4 | 178 | 682 | 31.8 | $25 \cdot 2$ |
| 28 | 1.2 | $15 \%$ | 576 | $42 \cdot 4$ | 29.2 |

ture on Groups.


TABLE
Average Monthly Income and Group
(Hindu


Percentage Expen


XI-contu.

## Expanditurc of Single Men.

stanis.)

| expenditure on |  |  | Miscellaneons. | Total expenditure. | Ealance of income oner expendifure. | Remitance to dependants. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| House rent. | Fuel and Lighting. | Houschold Requisites. |  |  |  |  |
| Keta. P. | Rs A. P. | Rs. A P. | Res. A. P | Fts. A. P. | Ks.a. P . | RS. A. P. |
| 0153 | 0128 | 050 | 128 | $\begin{array}{lll}12 & 2 & 5\end{array}$ | 6310 | 4147 |
| 162 | 0.146 | 0511 | 176 | 14210 | 856 | 639 |
| $\begin{array}{lll}1 & 7 & 2\end{array}$ | 0236 | 092 | 1.94 | 1490 | 11145 | 929 |
| 1149 | 01411 | 069 | 1139 | $\begin{array}{llll}16 & 8 & 9\end{array}$ | 15110 | 11106 |
| 1157 | 0150 | 078 | $\begin{array}{lll}2 & 3 & 5\end{array}$ | 18411 | 1989 | 1449 |
| 316 | 0155 | 085 | 310 | 21157 | 2988 | 2590 |
| 182 | 0142 | 062 | 1910 | 14135 | 1128 | 8100 |

as Percentages of Income.

| 5*3 | 43 | 17 | 6.7 | 66.1 | 33:9. | 367 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| 62 | 40 | 1.6 | 05 | 629 | 371 | 27.7 |
| 5.5 | $3 \cdot 2$ | 1.5 | 00 | 55.0 | 450 | 347 |
| 5.7 | 29 | 13 | 6.3 | $52 \cdot 3$ | 4977 | 368 |
| 52 | 25 | $1 \cdot 3$ | $5 \cdot 8$ | 48.4 | $51 \% 6$ | 378 |
| 60 | 19 | 10 | .5'9 | 42.7 | 573 | 496 |
| 58 | 34 | 15 | 62 | 5711 | 42.9 | 33.2 |

diture on Groups.

| 80 | 6.5 | $2 \%$ | 96 | 100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 98 | 14 | $2 \cdot 3$ | 10.4 | 100 |  |
| 973 | 58 | 2.6 | 109 | 100 |  |
| 109 | 5\% | 2.5 | 120 | 100 |  |
| 10.8 | 5:1 | 26 | 12.1 | 100 |  |
| $11^{1} 1$ | 44 | 3.4 | 13.9 | 100 |  |
| 182 | 59 | 20 | 109 | 100 |  |

TABLE
Average Monthly Income and Group


XI-concld.
Expenditure of Single Men.
gonians.)

| monthly expenditure on |  |  |  | Tokal expenciture. | Ralance of income over expenditare. <br> 111) | Remittance to deperdints.112) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| House rent. | Fael and Lighting. <br> (7) | Household Reguisites. <br> (8) | Miscel. laneors. <br> (9) |  |  |  |
| $\begin{array}{ccc} \text { Rs. } & \text { A. } & \text { P. } \\ 0 & 12 & 4 \\ 0 & 15 & 7 \\ 1 & 4 & 3 \\ 1 & 6 & 8 \\ 1 & 10 & 11 \\ 2 & 3 & 5 \end{array}$ | R3. A. $\mathbf{P}$. <br> 0124 <br> 0126 <br> 01211 <br> 0130 <br> 0129 <br> 01310 | $\begin{array}{ccc} \text { Rs. } & \mathbf{A} & \mathrm{P} \\ 0 & 5 & 0 \\ 0 & 5 & 2 \\ 0 & 5 & 8 \\ 0 & 6 & 4 \\ 0 & 7 & 3 \\ 0 & 9 & 1 \end{array}$ | Rs. A. P. <br> 11311 <br> 228 <br> 2510 <br> 2138 <br> 31210 <br> 554 | $\begin{array}{ccc} \text { Rs. } & \text { A. } & P \\ 14 & 1 & 8 \\ 14 & 14 & 8 \\ 16 & 6 & 8 \\ 18 & 1 & 2 \\ 20 & 4 & 6 \\ 25 & 9 & 9 \end{array}$ | Rs. A P. <br> 4 12 5 <br> 7 15 10 <br> 9 15 1 <br> 13 2 4 <br> 16 4 7 <br> 29 2 9 | $\begin{array}{ccc} \text { Rs. } & \text { A } & \text { P } \\ 3 & 14 & 4 \\ 6 & 0 & 2 \\ 7 & 9 & 2 \\ 9 & 14 & 2 \\ 12 & 2 & 3 \\ 21 & 7 & 11 \end{array}$ |
| 1 410 | 01210 | 061 | 2124 | $\begin{array}{lll}17 & 5 & 1\end{array}$ | 1202 | 903 |

as Percentages of Income.

| $4 \cdot 1$ | 4.1 | 17 | 99 | 747 | 253 | 206 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 42 | $3 \cdot 4$ | 1.4 | 95 | 651 | 349 | 262 |
| 48 | 3-1 | 13 | 90 | $62 \cdot 3$ | 377 | 287 |
| $4 \cdot 5$ | 2.6 | 13 | 91 | 579 | 42.1 | 317 |
| 46 | 22 | 12 | 10.4 | 55.5 | $44 \cdot 5$ | $33 \cdot 2$ |
| 40 | 16 | 10 | 97 | 468 | 532 | 39-2 |
| 44 | 27 | 13 | $9 \cdot 4$ | 590 | 410 | 307 |

diture on Groups.


TABLE
Average Quantity and Cost of Food (Tamils, Telugus

| Incoite class. | $\begin{aligned} & \text { Under } \\ & \text { Rs. } 20 . \end{aligned}$ | $\begin{gathered} \text { Rs. } 20 \\ \text { and } \\ \text { sinder } \\ \text { Rs. } 2 \mathbf{5 .} . \end{gathered}$ | Rs. 25 and under | Rs. 30 and under Rs 35. | Rs. 35 and under Rs. 40. | Above Rs. 40 | $\begin{gathered} \text { All } \\ \text { incomes. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of burdets | 58 | 367 | 491 | 300 | $2+3$ | 140 | 1,599 |
| Average monthly income. |  | . |  |  |  |  |  |

Quäntity consumed per tnonth.


Note -1 viss $=360 \mathrm{lbs}$. and 1 tical $=0$ wiss.
XII.
consumed per indoth hy Single Men.
and Uriyas.)


TABLE
Average Quantily and Cost of Food
(Hindu

| Income class. | Under <br> Rs. 20. | $\begin{gathered} \text { Rs. } 20 \\ \text { and } \\ \text { under } \\ \text { Rs. } 25 \end{gathered}$ | Rs. 25 and under Rs, 30. | $\begin{gathered} \text { Rs. } 30 \\ \text { and } \\ \text { under } \\ \text { Rs. } 35 . \end{gathered}$ | $\left(\begin{array}{c} \text { Rs. } 35 \\ \text { znd } \\ \text { under } \\ \text { Rs. } 40 . \end{array}\right)$ | Above <br> Rs. 40. | $\begin{gathered} \text { All } \\ \text { incomes. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of budgets | 94 | 354 | 175 | 62 | 44 | 39 | 768 |
| Average monthly income. |  |  |  |  |  |  |  |
|  | Quantity consumed per month. |  |  |  |  |  |  |
| Rice ... Viss | 8.34 | 726 | $8 \cdot 16$ | 7.54 | 6.41 | 6.41 | 7.53 |
| Wheat flour ... " | $3 \cdot 52$ | 479 | $4 \cdot 30$ | 506 | $5 \cdot 94$ | $6 \cdot 11$ | $4 \cdot 67$ |
| Arhar ... | 212 | 2.21 | 200 | 185 | 193 | 180 | 2.08 |
| Urad ... ", | $\cdot 18$ | $\cdot 10$ | $\cdot 10$ | . 09 | 14 | $\cdot 14$ | $\cdot 12$ |
| Moong ... . | 01 | -10 | 02 | . 09 | $\cdot 04$ | $\cdot 08$ | 07 |
| Musur $\quad$.. | ... | 02 | 01 | .13 | ... | -01 | $\cdot 02$ |
| Chana | $\cdot 10$ | $\cdot 15$ | -23 | -23 | $\cdot 28$ | $\cdot 22$ | 18 |
| Sugar, refined... | '01 | $\cdot 04$ | $\cdot 05$ | -08 | -19 | - 16 | . 05 |
| $\begin{array}{lll}\text { Gar } & \text { Tea } & \ldots . \\ \text { Te" } & \text { lbs. }\end{array}$ | . 01 | . 02 | $\stackrel{01}{01}$ | $\because 001$ | $\because 04$ | $\because 03$ | 01 |
| Fish, fresh ... Viss | $\cdot \cdot 13$ | $\cdot 12$ -01 | $\cdot 27$ | $\cdot 24$ $\cdot 02$ | $\cdot 39$ | $\cdot 29$ | -19 |
| Beef $\quad$..* | -03 | 01 | 01 | '02 | '01 | -04 | -01 |
| Matton $\quad .$. | 01 | -01 | 07 | 06 | -08 | 04 | 03 |
| Fowls ... " | . 01 | ... | ... | -01 | , 01 | . 03 | ... |
| Milk, fresh ... | .01 | $\cdot 11$ | $-15$ | -60 | 1.28 .38 | 2.02 | -31 |
| Ghee ... " | $\cdot 24$ | $\cdot 28$ | *27 | $\cdot 32$ | -38 | -45 | 28 |
| Salt $\quad$.. | *40 | -42 | $\cdot 48$ | $\cdot 51$ | $\cdot 51$ | -53 | -45 |
| Spices and other ... condiments | - | - | $\checkmark$ | - | - | - |  |
| Polatoes $\ldots$. Viss <br> Onions $\ldots$.  | 78 -19 | 114 $\cdot 19$ | 1.43 $\cdot 30$ | $\begin{array}{r}1.56 \\ \hline \cdot 32\end{array}$ | 1.66 .37 | ${ }^{1.65}$ | 125 -24 |
| Fruit and other vegetables <br> Mustard oil ... Viss | $\cdot 20$ | -16 | -17 | $\cdot 15$ | -18 | -14 | . 16 |
| Food bought and consumed away from home :Tea .... Cups | ... | $1$ | 2 | 5 | 5 | 9 | 2 |
| Total Food ... | - | - | - | - | - | - | - |

Note- 1 viss $=360$ lbs.

## XII-contd.

consumed per Month by Single Men.
stanis.)

| Under <br> Rs. 20. | $\begin{aligned} & \text { Rs. } 20 \\ & \text { and under } \\ & \text { Rs. } 25 . \end{aligned}$ | Rs. 25 and under Rs. 30. | Rs. 30 and under Rs. 35. | Rs. 35 and under Rs. 40. | Above <br> Rs. 40. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 94 | 354 | 175 | 62 | 44 | 39 | 768 |
| Rs. A. $P$. <br> 1863 | $\begin{array}{ccc} \text { Rs. A. P. } \\ 228 & 8 \end{array}$ | $\begin{array}{ll} \text { Rs. A. } & \text { P } \\ 26 \quad 7 \quad 5 \end{array}$ | Rs. A. $\mathbf{P}$. $31107$ | Rs. A. P. <br> 37138 | $\begin{array}{ccc} \text { Rs. A. P. } \\ 51 & 8 & 3 \end{array}$ | $\begin{array}{lll} \text { Rs. A. } & \text { P. } \\ 26 & 0 & 1 \end{array}$ |
| Cost per month. |  |  |  |  |  |  |
| 274 | $2 \begin{array}{lll}2 & 3 & 6\end{array}$ | 2911 | 269 | $\begin{array}{llll}2 & 1 & 7\end{array}$ | $2 \begin{array}{lll}2 & 1 & 3\end{array}$ | 255 |
| 1711 | 215 | 1124 | 214 | 278 | 2.81 | 1159 |
| 0152 | 1004 | 0146 | 0138 | 0146 | 0134 | 0153 |
| 012 | 0 0 0 | 007 | 006 | 0010 | 0010 | 009 |
| 001 | $\begin{array}{rrrr}0 & 0 & 10 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{lll}0 & 0 & 3 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{lll}0 & 0 & 10 \\ 0 & 0 & 10\end{array}$ | 004 | $\begin{array}{lll}0 & 0 & 7 \\ 0 & 0 & 1\end{array}$ | $\begin{array}{lll}0 & 0 & 6 \\ 0 & 0 & 2\end{array}$ |
| $\begin{array}{lll}0 & 0 & 7\end{array}$ | $\begin{array}{llll}0 & 0 & 10\end{array}$ | $\begin{array}{lll}0 & 1 & 2\end{array}$ | $\begin{array}{lll}0 & 1 & 3\end{array}$ | 0816 | 012 | 010 |
| 001 | 0 0 0 4 | 006 | 008 | 018 | 015 | 006 |
| 0 0 01 | $\begin{array}{lll}0 & 0 & 2\end{array}$ | 0002 |  |  |  | 002 |
| 0 0 0 | $\begin{array}{lll}0 & 0 & 4\end{array}$ | 001 | 0 O 2 | 003 | 006 | 003 |
| 024 | $\begin{array}{lll}0 & 2 & 6\end{array}$ | 053 | $\begin{array}{lll}0 & 5 & 3\end{array}$ | $\begin{array}{lll}0 & 7 & 7\end{array}$ | 078 | 0311 |
| 007 | 002 | 0 O 1 | 0 0 05 | 003 | $0 \quad 09$ | $0 \quad 0$ |
| 0 0 04 | 006 | 025 | 028 | 0211 | 016 | 013 |
| 003 | ... | ... | 006 | 0 0 06 | 014 | 002 |
| 0 O 1 | $\begin{array}{lll}0 & 1 & 2\end{array}$ | 0110 | $\begin{array}{lll}0 & 7 & 2\end{array}$ | 0149 | 188 | 038 |
| 104 | $\begin{array}{lll}1 & 3 & 7\end{array}$ | 126 | 160 | 1105 | 213 | 142 |
| 012 | $\begin{array}{lll}0 & 1 & 3\end{array}$ | $\begin{array}{llll}0 & 1 & 4\end{array}$ | $\begin{array}{lll}0 & 1 & 5\end{array}$ | 016 | 017 | 014 |
| 046 | 049 | 0411 | 052 | $\begin{array}{llll}0 & 5 & 7\end{array}$ | 055 | 0411 |
| $0 \cdot 35$ | 050 | - 511 | 067 | 0610 | 068 | 054 |
| 0011 | 0011 | 016 | 017. | 0110 | 019 | 012 |
| 074 | 0811 | 056 | 065 | 073 | 078 | 076 |
| 053 | 042 | 042 | 036 | 047 | 037 | 043 |
|  |  |  |  |  |  | 017 |
|  | . 0.006 | $\begin{array}{llll}0 & 2 & 0\end{array}$ | 1 $\begin{array}{llll}0 & 4 & 1\end{array}$ | $\begin{array}{llll}0 & 3 & 10\end{array}$ | $\begin{array}{lll}0 & 7 & 1\end{array}$ |  |
| 007 | 7101 | 0111 | 019 | $0 \begin{array}{llll}0 & 1 & 3\end{array}$ | 052 | 017 |
| 71110 | 1811 0 | 8149 | 99145 | 1117 | 126.6 | 909 |

TABLE
Average Quantily and Cosit of Food
Chitta

| Income class | Under <br> Rs. 20. | $\begin{gathered} \text { Rs. } 20 \\ \text { and } \\ \text { minder } \\ \text { Rs. } 25 . \end{gathered}$ | Rs. 25 ant under Rs. 30. | Rs. 30 and: under Rs. 35. | $\begin{gathered} \text { Rs. } 35 \\ \text { and } \\ \text { undtr } \\ \text { Rs. } 40 . \end{gathered}$ | Above Rs', 40. | $\underset{\text { Ancomes. }}{\text { All }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of budgets. | 27 | 228 | 150 | 129 | 63 | 57 | $654 *$ |
| Average monthly income. |  |  |  |  |  |  |  |
|  | Quantity consumed per month. |  |  |  |  |  |  |
| Rice . $\quad . . \mathrm{Viss}$ | 11:20 | 1090 | 11.30 | 1F:0 | 1 r 20 | 11.10 | 1100 |
| Arhar $\quad .$. , | - 17 | -28 | 23 | $\cdot 22$ | -29 | $\cdot 25$ | $\cdot 25$ |
| Urad ... . | $\checkmark 57$ | '31 | $\cdot 38$ | $\cdot 39$ | 43 | 46 | -38 |
| Moong $\quad .$. | '52 | '58 | $\cdot 61$ | 63 | -59 | 61 | 60 |
| Musur ${ }^{\text {a.. }}$ | 03 | $\cdot 09$ | '08 | 06 | 08 | '0\% | 08 |
| Chama ... | '01 | $\cdot 10$ | '21 | $\cdot 20$ | '18 | ${ }^{1} 6$ | 16 |
| Kish, iresh . ${ }^{\text {a }}$ | 1.04 | 118 | 133 | 143 | 128 | 143 | 1.29 |
| Fish, salted, dry " | '32 | '28 | $\cdot 27$ | '26 | $\cdot 26$ | $\cdot 27$ | $\cdot 27$ |
| Beef ... ., | '13 | $\cdot 21$ | $\cdot 21$ | '20 | '18 | 21 | $\cdot 20$ |
| Mútoon ... , | 03 | 01 | 01 | '01 | . 02 | .04 | . 01 |
| Fowls $\quad . .$. | -09 | $\cdot 10$ | . 08 | $\cdot 10$ | -19 | $\cdot 26$ | -12 |
| Milk, frésh ... | - | - | - | . 02 | 0 ) | -64 | 07 |
| Salt $\quad$ " | $\cdot 50$ | 49 | -52 | $\cdot 52$ | $\cdot 51$ | '53 | . 51 |
| Sices and ohe: condiments $\ldots$ - | - | - | - | - | - | - | - |
| Potatoes ... Viss | $1 \cdot 20$ | $1 \cdot 10$ | $1 \cdot 20$ | $1 \cdot 30$ | $1 \cdot 30$ | $1 \cdot 30$ | 120 |
|  | -47 | 45 | $\cdot 44$ | $\cdot 43$ | 42 | 46 | 44 |
| Freit and other vijesbles ... - | - | - | - | - | - | - |  |
| Mustird oil ... Viss | $\cdot 37$ | '28 | '28 | $\cdot 25$ | $\cdot 26$ | $\cdot 27$ | -28 |
| Other food ... - | - | - | - | - | - | - | - |
| Food bought and consumec away from home :Tea <br> ... Cups | 22 | 20 | 21 | 29 | 35 | 50 | 26 |
| Others ... - | - | - | - | - | - | - | - |
| Total Food | - | - | - | - | - | - | - |

Note. -1 viss $=3.60 \mathrm{lbs}$.

XII-concht.
consumed per month by Single İfen.
gonians.)

| Under <br> Rs. 20. | Rs. 20 and under Rs. 25. | Rs. 35 and under Rs. 30. |  and under Ps. 35. | Rs. 35 and under Rs. 40. | Abave fis. 40. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | 228 | 150 | 129 | $63$ | 57 | $654$ |
| Rs. A. P. <br> $1814 \quad 1$ | Rs. A. P. 22146 | Rs. A. $P$. <br> $\begin{array}{lll}26 & 5 & 9\end{array}$ | Rs. A. $\mathbf{P}$. <br> 3136 | RF. A. P. $36 \quad 9 \quad 1$ | Rs. A. $P$. <br> 34126 | Rs. A. $P$. <br> 2953 |
| Cost per month. |  |  |  |  |  |  |
| 314 | 3 0 3 | $3 \quad 39$ | 3211 | 330 | $3 \begin{array}{lll}3 & 3 & 2\end{array}$ | 322 |
| $\begin{array}{lll}0 & 1 & 4\end{array}$ | $\begin{array}{lll}0 & 2 & 1\end{array}$ | 019 | $\begin{array}{lll}0 & 1 & 8\end{array}$ | 023 | 0111 | 0111 |
| $0 \cdot 31$ | 0110 | 023 | 025 | 027 | 0210 | 025 |
| $\begin{array}{llll}0 & 4 & 3\end{array}$ | 048 | 0 5.2 | 054 | 0411 | 051 | 0411 |
| $0 \quad 02$ | $\begin{array}{llll}0 & 0 & 8\end{array}$ | $\begin{array}{llll}0 & 0 & 8\end{array}$ | 006 | 007 | 006 | 007 |
| $\begin{array}{lll}0 & 0 & 1\end{array}$ | 006 | $\begin{array}{lll}0 & 1\end{array}$ | 010 | 0011 | 0010 | $0 \quad 010$ |
| $1{ }^{1} 28$ | $\begin{array}{lll}1 & 6 & 2\end{array}$ | 1111 | 1138 | 11010 | 1142 | 1 910 |
| 088 | 090 | $\begin{array}{llll}0 & 8 & 7\end{array}$ | $\begin{array}{llll}0 & 8 & 1\end{array}$ | 081 | 088 | 087 |
| 0210 | 044 | 045 | 041 | $\begin{array}{lll}0 & 3 & -8\end{array}$ | 0483 | 042 |
| $\begin{array}{lll}0 & 1 & 3 \\ 0 & 3 & 6\end{array}$ | $\begin{array}{llll}0 & 0 & 5 \\ 0 & 3 & 11\end{array}$ | $\begin{array}{lll}0 & 0 & 7 \\ 0 & 3 & 4\end{array}$ | 0 0 2 <br> 0 $\frac{2}{4}$  | $\begin{array}{lll}0 & 9 & 9 \\ 0 & 8 & 9\end{array}$ | $\begin{array}{lll}0 & 1 & 3 \\ 0 & 12 & 0\end{array}$ | $\begin{array}{lll}0 & 0 & 6 \\ 0 & 5 & 1\end{array}$ |
| - | - | - | $0 \quad 0 \quad 3$ | $0 \quad 011$ | -069 | 009 |
| 0 116 | 016 | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 017 | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 017 | 016 |
| 071 | $\begin{array}{llll}0 & 6 & 8\end{array}$ | 068 | 069 | 068 | 972 | 069 |
| 063 | 050 | 058 | 059 | 060 | 060 | 057 |
| 026 | $\begin{array}{lll}0 & 2 & 3\end{array}$ | 0 212 | 0 1 11 | 020 | 0 0 2 | 027 |
| $\begin{array}{lll}0 & 5 & 7\end{array}$ | 0 \% 56 | 057 | 0510 | 052 | d 57 | 057 |
| 092 | 074 | 072 | 067 | 0611 | 072 | 072 |
| - | 0 | - | $\begin{array}{lll}0 & 0 & 1\end{array}$ | - | $0 \quad 09$ | 002 |
| 148 | 135 | 122 | 172 | 1133 | 296 | 1. 610 |
| 021 | 039 | 071 | 0119 | 01311 | 1811 | 0810 |
| 9311 | 956 | 1009 | 10123 | 1168 | 13143 | 1063 |

TABLE
Avarage Number of Articles of Clothing purchased per year and

| Income class. | Under <br> Rs. 20. |  | Rs. 25 and under Rs. 30 | Rs. 30 and under Rs. 35 | Rs. 35 and under Rs. 40. | Above <br> Rs. 40. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Tamils, Telugus |  |  |  |  |  |  |  |
| Number of budgets | . 58 | 367 | 491 | - 300 | 243 | 140 | 1,599 |
| Average monthly income. | - | - | - | - | - | - | - |
|  | Number of articles purchased per year. |  |  |  |  |  |  |
| Dhotis ... No. <br> Longyis cotton Short pants and trousers | 2.81 | 2.94 | $3 \cdot 21$ | $3 \cdot 21$ | 313 | $3 \cdot 45$ | 312 |
|  | '24 | 32 | '29 | '23 | 20 | $\cdot 20$ | $\cdot 25$ |
|  | -02 | '03 | '08 | . 01 | . 03 | $\cdot 11$ | . 05 |
| Banians and bandis. | -83 | -81 | -89 | 118 | 1.27 | 1.95 | 1.03 |
| Half shirts and shirts | $2 \cdot 40$ | 2.25 | $2 \cdot 21$ | $2 \cdot 39$ | $2 \cdot 45$ | 2.66 | $2 \cdot 36$ |
| Coats ... " | 214 | 17 | $\cdot 19$ | 28 | 26 | . 44 | 23 |
| Upper cloths | $2 \cdot 54$ | $2 \cdot 27$ | 2.02 | 213 | 201 | 1.57 | 2.07 |
| Shoes .... Pairs | ... | $\because$ | $\because$ | - 0 | .02 | . 04 | 01 |
| Sandals, leather , | $\cdots$ | . 01 | '02 | . 03 | . 02 | . 04 | 08 |
| Umbrellas ... No. | -11 | $\cdot 06$ | 10 | $\cdot 10$ | ,08 | $\cdot 07$ | 08 |
| Others ... | - | - | - | -- | - | - | - |
| Total clothing | - | - | - | - | - | - | 1-- |
| (Hindu |  |  |  |  |  |  |  |
| Number of Budgets | 94 | 354 | 175 | 62 | 44 | 39 | 768 |
| Average monthly income. |  |  |  |  |  |  |  |
|  | Number of articles purchased per year |  |  |  |  |  |  |
| Dhotis ... No. Longyis, cotton Short pants and trousers | 3.04 | 2.98 | 3.03 | $3 \cdot 18$ | 3.31 | 3.18 | 303 |
|  | $\cdot 11$ | 02 | ... | '08 | '13 | $\cdot 21$ | '05 |
|  | ... | 02 | *: | '03 | 05 | $\cdot 31$ | . 03 |
| Banians bandis and | 1.36 | 175 | 1.85 | 198 | $2 \cdot 12$ | 2.14 | 173 |
| Hali shirts | 1.86 | 1.80 | 178 | 1.83 | $1 \cdot 87$ | 1.85 | 1.81 |
| Coats . ... " |  |  |  |  |  |  |  |
| Upper cloths | $\cdot 11$ | $\cdot 31$ | $\cdot 32$ | -33 | -35 | $\cdot 55$ | -31 |
| Turbans and | -06 | $\cdot 08$ | $\cdot 10$ | . 05 | -is |  | '07 |
| pagris. | '06 | '22 | $\cdot 17$ | '16 | 15 | $\cdot 12$ | $\cdot 17$ |
| Caps, longcloth and mull | 119 | -96 | '41 | $\cdot 40$ | '38 | '49 | 77 |
| Caps, fez, velyet and serge | -66 | . 08 | '09 | $\cdot 12$ | $\cdot 10$ | $\cdot 12$ | - 09 |
| Shoes ... Pairs | $\cdot 59$ | -55 | . 60 | 79 | 66 | 102 | 61 |
| Sandals, wooden | -44 | $\cdot 47$ | $-26$ | $\cdot 29$ | $\cdot 28$ | $\cdot 24$ | . 38 |
| Umbrellas ... No. | $\cdot 25$ | $\cdot 29$ | $\cdot 32$ | 40 | $\cdot 42$ | $\cdot 39$ | 31 |
| Qthers ... | - | - | - | - | - | - | - |
| Total clothing - | 二 | - | - | - | - | - | - |

XIII.

Average Monthly Expendilure on these Articles by Single Men.

| Cnder <br> Rs. 20. | Bs. 20 and under Rs. 25. | Ps. 25 and under Rs. 30. | Rs. 30 and mader Rs. 35. | Rs. 35 and under Rs. 40. | Above <br> Rs. 40. | An iucomes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## and Uriyas).

| 58 | 367 | 491 | 300 | 243 | 140 | 1,599 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rs. A.  <br> 18 1  | Rs.   <br>    <br> 21 14. Pr | $\begin{array}{lll} \hline \text { Rs } & \text { A. } & \text { P } \\ 26 & 7 & 5 \end{array}$ | $\begin{array}{llll}\text { Rs } & \text { A. } & \text { P. } \\ \mathbf{3 1} & 7 & 7\end{array}$ | $\begin{array}{ll\|} \hline \text { Rs. } & \text { A } \\ 36 & 7 \\ \hline \end{array}$ | $\begin{array}{lll} \hline R s & A & P_{0} \\ 46 & 6 & 9 \end{array}$ | $\begin{aligned} & \text { Rs. A. } \\ & \hline 29 \\ & 4 \end{aligned}$ |
| Monthly Expenditure. |  |  |  |  |  |  |
| Rs. A. P. | Rs. A. P. | Rs, A. P. | Rs. A, $\mathbf{p}$ | Rs. A. P. | Rs. A. P. | Rs. A. P. |
| 0511 | 063 | 070 | 072 | 076 | 089 | 071 |
| 005 | 007 | 007 | 006 | 005 | 085 | 066 |
| ... | 001 | 002 | ... | 001 | 004 | 001 |
| 009 | 009 | - 0.10 | 012 | 013 | 020 | 010 |
| 0410 | 051 | 052 | 057 | 059 | 069 | 056 |
| 007 | 0009 | 0010 | 015 | 016 | 027 | $\begin{array}{lll}0 & 1 & 2\end{array}$ |
| 031 | 035 | 036 | 0310 | 038 | 034 | 037 |
|  |  |  |  | 0 0 01 | 0 | 001 |
| 003 |  | 00 | 0 0 01 | 001 | 0 O 2 | 001 |
| 003 | $\begin{array}{llll}0 & 0 & 2 \\ 0 & 0 & 3\end{array}$ | $\begin{array}{llll}0 & 0 & 3 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{lll}0 & 0 & 3 \\ 0 & 0 & 2\end{array}$ | $\begin{array}{lll} 0 & 0 & 3 \\ 0 & 0 & 2 \end{array}$ | $\left.\begin{array}{lll} 0 & 0 & 3 \\ 0 & 0 & 7 \end{array} \right\rvert\,$ | $\begin{array}{lll} 0 & 0 & 3 \\ 0 & 0 & 2 \end{array}$ |
| 01511 | 1 | 2 | 4 | 14 | 9 | 36 |
| stanis). |  |  |  |  |  |  |
| 94 | 354 | 175 | 62 | 44 | 39 | 768 |
| $\begin{array}{llll}\text { Rs. } & \text { A. } & \text { P. } \\ 18 & 6 & 3\end{array}$ | Rs. A. P. <br> $\mathbf{2 2}$ 8 4 | $\begin{array}{lll\|} \hline \text { Rs. } & \text { A. } & \text { P } \\ 26 & 7 & 5 \\ \hline \end{array}$ | $\begin{array}{ll} \hline \text { Rs. A. } \\ 31.107 \end{array}$ | $\begin{array}{ll} \hline R s & A \\ \hline 37 & 13 \\ \hline \end{array}$ | $\begin{array}{\|lll} \hline \text { Rs. } & \text { A. } & \\ 51 & 8 & 3 \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline R s, ~ A . ~ & \\ 26 & 0 \\ \hline \end{array}$ |
| Nonthly Expenditure. |  |  |  |  |  |  |
| $\begin{array}{ccc}\text { Rs. } \\ 0 & \text { A. } & \text { P. } \\ 0 & 7 & 8 \\ 0 & 0 & \end{array}$ | $\begin{gathered}\text { Rs. } \\ 0\end{gathered} \mathrm{~A} . \mathrm{P}_{1}$ | Rs. A. 0 0 | $\begin{array}{cc}\text { Rs. } & \text { A } \\ 0 & \text { P. } \\ 0 & 8\end{array}$ | Rs. A. $\begin{gathered}\text { P. } \\ 0 \\ 0\end{gathered}$ | $\left\lvert\, \begin{gathered}\text { Rs. } \\ 0\end{gathered}\right.$ | Rs. 0 0 |
| $\begin{array}{llll}0 & 0 & 3\end{array}$ | 001 |  | 002 | 004 | 088 | 001 |
| .. | 001 | - | 001 | $0 \quad 0 \quad 2$ | 009 | 001 |
| 0110 | 025 | 027 | 029 | 030 | 033 | 0. 25 |
| 046 | 0410 | 0411 | 052 | 053 | 033 | 0411 |
| 008 | 0111 | 020 | 021 | 023 | 0310 | 0111 |
| 0001 | 002 | 002 | 001 |  | . | 002 |
| 003 | 009 | 087 | 007 | 008 | 007 | 007 |
| 006 | 005 | 002 | 002 | 02 | $00^{0} 03^{*}$ | 0 O 04 |
| 0 0-1 | 0 O 02 | 0 0-6 | $\begin{array}{lll}0 & 0 & 3\end{array}$ | $\begin{array}{llll}0 & 0 & 2\end{array}$ | $\begin{array}{llll}0 & 0 & 4\end{array}$ | 002 |
| 0110 | 0110 | 021 | 029 | 0211 | 050 | 022 |
| $\begin{array}{llll}0 & 0 & 3\end{array}$ | $\begin{array}{llll}0 & 0 & 3\end{array}$ | $\begin{array}{lll}0 & 0 & 2\end{array}$ | 002 | $\begin{array}{llll}0 & 0 & 2\end{array}$ | 0002 | 003 |
| 008 | $00_{0} 011$ | $\begin{array}{lll}0 & 1 & 1 \\ 0 & 0 & \end{array}$ | $\begin{array}{lll}0 & 1 & 4\end{array}$ | 0 | $\begin{array}{lll}0 & 1 & 5\end{array}$ | 010 |
| 002 | 001 | 002 | 004 | 00 | 007 | 002 |
| 1210 | 159 | 161 | 182 | 198 | 1149 | 164 |

## ( 126 )

TABLE
Average Number of Articles of Clothing purchasal per year

| Income class. | Under | Rs. 20 and under Rs. 25. 13s. 25 | $\begin{aligned} & \text { Rs. } 25 \\ & \text { and } \\ & \text { under } \\ & \text { Rs. } 30 \end{aligned}$ | $\begin{gathered} \text { Rs. } 30 \\ \text { and } \\ \text { under } \\ \text { Rs. } 35 \end{gathered}$ | $\begin{gathered} \text { Rs. } 35 \\ \text { and } \\ \text { under } \\ \text { Rs. } 40 . \end{gathered}$ | Above Rs. 40. | $\begin{array}{\|c} \text { All } \\ \hline \text { neomes } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | (Chitta |  |
| Number "f Budgets | $27]^{\prime \prime} \quad 228$ |  |  | 129 | 63 | 57 | 654 |
| Average monthly income. |  |  |  |  |  |  |  |
|  | Number of articles purchased per year. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Dhotis } \\ & \text { Lomgyis, colto. No. } \\ & \text { Shork pan's and } \end{aligned}$ | $\begin{array}{r} 03 \\ 2.79 \end{array}$ | $\begin{array}{r}05 \\ 300 \\ \hline 00\end{array}$ | 163,02 | $\begin{array}{r}12 \\ 319 \\ \hline 19\end{array}$ | $\begin{array}{r}1.20 \\ 3.45 \\ \hline 140\end{array}$ | - 3.84 | 3.14 |
|  |  |  |  |  |  |  |  |
|  | 3\% | '79 | 118 | $1: 23$ | 140 | 177 | 108 |
|  | 92 | 72 | 119 | 124 | 122 | 139 | 1.03 |
| $\frac{\mathrm{H}_{6} \mathrm{t} \text { initis and }}{\text { shisis. }}$ | $\begin{array}{r}2 \cdot 68 \\ \hline 14\end{array}$ | 31914 | $\begin{array}{r}314 \\ \hline .23 \\ \hline\end{array}$ | 3.05 <br> 40 | $\begin{array}{r}315 \\ \hline 44\end{array}$ | 3.7630 | 3.17.28 |
| Coats ... . |  |  |  |  |  |  |  |
| caps, low cloly $21 . \mathrm{d}$ n.ill. | $\cdot 71$ | 57 | 62 | 43 | $\cdot 4.3$ | 43 | 52 |
| Caps, fer, ve'vet | $\begin{aligned} & 122 \\ & 4 \hat{2} \end{aligned}$ | $\begin{aligned} & 16 \\ & -46 \end{aligned}$ | $17$ | $\begin{aligned} & 32 \\ & \hline 1 \end{aligned}$ | 30 <br> .99 | .351.01 | $\begin{array}{r}22 \\ .46 \\ \hline 06\end{array}$ |
| Shres ${ }^{\text {a }}$... Pairs. |  |  |  |  |  |  |  |
| Stippers ... ". | $\ldots$ | $\cdots$ | $\bigcirc$ | 13 | 08 | $\cdot 20$ |  |
| Stindals, Jeather ... |  |  | 01 |  |  |  | 04 |
| Sandials. wooden | 96 |  |  |  |  | 07 |  |
| Umbrellas ... No. | $\cdot 10$ | . 28 | . 70 | .70 | ${ }^{6} 44$ | .73 <br> 45 | $\cdot 33$ |
| Ohers ... - | - |  | - | - | - | - |  |
| Total Clothing - | - | - | - |  | - |  | : - |

$$
(122)
$$

XIII-contd.
and Average Monthly Expenditure on these Articles by Single Men.

| Under <br> Rs. 20. | Rs. 20 and under ks. 2 : | $\begin{aligned} & \text { Rs. } 25 \text { and } \\ & \text { under } \\ & \text { Rs. } 30 . \end{aligned}$ | Ws. 30 and ur cies Its. 3 3. | $\left\lvert\, \begin{gathered} \text { Rs. } 35 \text { and } \\ \frac{\text { undar }}{} \\ R s .40 . \end{gathered}\right.$ | Above <br> Rs. 40. | All incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| 27 | 223: | 150 | 12. | 63 | 57 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left\lvert\, \begin{array}{rrr} \text { Rs. } & \text { A } & \text { P. } \\ 18 & 14 & 1 \end{array}\right.$ | Its. A. P. <br> 22 14 6 | Rs, A. $\begin{array}{rrr}\text { P } \\ 26 & 5 & 9\end{array}$ | Rs. A. P.  <br> 31 3 6 | $\begin{array}{cccc}\text { Rs. A. } & \text { P. } \\ 30 & 9 & 1\end{array}$ | R8. $\begin{array}{ccc}\text { R } & \text { P. } \\ 54 & 12 & 6\end{array}$ |  |  |
| Monthly expenditure, |  |  |  |  |  |  |  |
| $\overline{-1 /}$ |  |  |  |  |  |  |  |
| Rs. A. E. |  |  | Rs. A. P. |  |  |  |  |
| $\begin{array}{lll} 0 & 0 & 1 \\ 0 & 6 & 10 \end{array}$ | $\begin{array}{lll} 0 & 0 & 1 \\ 0 & 7 & 5 \end{array}$ | $\begin{array}{lll} a & 0 & 4 \\ 0 & 7 & 7 \end{array}$ | $\begin{array}{lll} 0 . & 0 & 3 \\ 0 & 8 & 3 \end{array}$ | $\begin{array}{lll} 0 & 0 & 6 \\ 0 & 9 & 3 \end{array}$ | $\left\lvert\, \begin{array}{ccc} 0 & 0 & 8 \\ 0 & 11 & 0 \end{array}\right.$ | 0 |  |
| 0011 | 019 | 02 s | 0210 | 035 | 047 | + 0 | 2 |
| 0 O 011 | 0 0. 9 | 0.14 | 015 | $\begin{array}{lll}0 & 1 & 7\end{array}$ | 022 |  |  |
| $\begin{array}{llll}0 & 5 & 4 \\ 0 & 0 & 7\end{array}$ | $\begin{array}{llr}0 & 6 & 5 \\ 0 & 0 & 10\end{array}$ | $\begin{array}{lll}0 & 6 & 5 \\ 0 & 1 & 4\end{array}$ | $\begin{array}{lll}0 & 7 & 0 \\ 0 & 2 & 5\end{array}$ | $\begin{array}{lll}0 & 7 & 7 \\ 0 & 2 & 8\end{array}$ | $\begin{array}{lll}0 & 9 & 7 \\ 0 & 4 & 2\end{array}$ | 0 |  |
| 995 | 006 | 006 | 004 | 005 | 00.5 | 0 |  |
| 9 9 9 | $\begin{array}{lll}0 & 0 & 4 \\ 0 & 2 & 1\end{array}$ | $\begin{array}{lll}0 & 0 & 5 \\ 0 & 2 & 9\end{array}$ | $\begin{array}{lll}0 & 0 & 9 \\ 0 & 3 & 7\end{array}$ | $\begin{array}{ccc}0 & 0 & 10 \\ 0 & 5 & 2\end{array}$ | $\begin{array}{lll}0 & 1 & 2 \\ 0 & 6 & 9\end{array}$ |  |  |
|  |  | 002 | 0064 | $0 \quad 03$ | 0 0.8 | 0 |  |
|  | 001 | *** | 0 0 01 | $\begin{array}{lll}0 & 0 & 31\end{array}$ | $0 \quad 0 \quad 2$ | 0 | 0 |
| 005 | 003 | 0 O 04 | 004 | 003 | $\begin{array}{lll}0 & 0 & 4\end{array}$ | 0 |  |
| 6.03 | 0 0. 8 | 010 | 0.12 | 0.14 | 015 | 0 |  |
| 005 | 001 | $0 \quad 02$ | $0 \quad 0 \quad 3$ | 005 | 0. 9.8 | 0 |  |
| 122 | 153 | 143 | $113 \cdot 3$ | 221 | 21110 |  |  |

TABLE XIV.
Average Monihly Expenditure of Single Men on Rent, Fuel and Lighting, Howsehold Requisites and Miscellaneous Items.
(Tamils, Telugus and Uriyas.)

| Income class. | Under <br> Rs. 20. | Rs. 20 and under Rs. 25 | Rs. 25 and under Rs. 30 | Rs. 30 and under Rs. 35. | Rs. 35 and under Rs. 40 | Above <br> Rs. 40. | $\begin{gathered} \text { All } \\ \text { incomes. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of budgets | 58 | 367 | 491 | 300 | 243 | 140 | 1,599 |
| Average monthly income. | $\left\|\begin{array}{lll} \text { Rs. } & \text { A. } & \text { P } \\ 18 & 1 & 6 \end{array}\right\|$ | $\left\|\begin{array}{lll} \text { Rs. } & \text { A. } & \text { P } \\ \text { B1 } & 14 & 0 \end{array}\right\|$ | $\left\|\begin{array}{lll} \text { Rs. } & \text { A. } & \text { P. } \\ 26 & 7 & 5 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } & \text { P } \\ 31 & 7 & 7 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } & \text { P } \\ 36 & 5 & 7 \end{array}\right\|$ | $\left\lvert\, \begin{array}{lll} \text { Rs } & \text { A } & \text { P } \\ 46 & 6 & 9 \end{array}\right.$ | $\left\lvert\, \begin{array}{lll} \mathrm{Rs} & \mathrm{~A} & P_{x} \\ 29 & 4 & 9 \end{array}\right.$ |
|  | Monthly Expenditure. |  |  |  |  |  |  |
| Rent ...* | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } & P_{0} \\ 0 & 15 & 4 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } & \text { P } \\ 1 & 3 & 5 \end{array}\right\|$ | $\left\|\begin{array}{rrr} \text { Rs. } & \text { A. } & \mathbf{P} \\ 1 & 5 & 5 \end{array}\right\|$ | $\left\|\begin{array}{rrr} \text { Rs. } & \text { A } & \text { P } \\ 1 & 9 & 0 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rs } & \text { A. } & p \\ 1 & 10 & 0 \end{array}\right\|$ | $\left\|\begin{array}{rrr} \text { Rs. } & \text { r. } \\ 2 & 3 & 3 \end{array}\right\|$ | $\begin{array}{cc} \text { Rs. } & \text { A. } \\ 17 & 4 \end{array}$ |
| Firewood | 08811 | 09 | 010 | $0 \begin{array}{lll}0 & 11 & 3\end{array}$ | 01110 | 013 | 010 |
| Kerosene oil | 021 | 02 | 02 | 029 | 02 | 03 | 026 |
| Electric light | 0 O 10 | 01 | 0011 | 009 | 00 | 00 | 0010 |
| Other fuel and lighting | $\begin{array}{lll} 0 & 0 & 9 \end{array}$ | 009 | $\begin{array}{lll}0 & 1 & 2\end{array}$ | 0010 |  |  | 010 |
| Total Fuel and Lighting ... | 0127 | 0133 | 0148 | 0157 | 103 | 126 | 015 |
| Cots or charpoys | $\begin{array}{lll}0 & 0 & 9\end{array}$ | $\begin{array}{llll}0 & 0 & 9\end{array}$ | $00_{0} 010$ | $\begin{array}{lll}0 & 0 & 10 \\ 0 & 0 & 3\end{array}$ | 01 | 01 | $\begin{array}{llll}0 & 0 & 10 \\ 0 & 0 & \end{array}$ |
| Mats ... | 002 | 0 | 0 | 0 |  | 0 |  |
| Blankets | 01 | 01 | 015 | 016 | 016 | 01 | 01 |
| Sheets | 0 | 00 | 006 | 0 0 7 | 0011 | 012 | 00 |
| Pillows and pillow cases | $\begin{array}{llll}0 & 0 & 3\end{array}$ | 00 | 0 O 5 | 0 | $0 \cdot 0$ | 0 0 05 |  |
| Cooking pots | 017 | 01 | 0110 | 020 | 022 | 02 | 111 |
| Purniture | 004 | 00 | 008 | 0 O | $0 \quad 010$ | 01 | 009 |
| Total Household Requisites | 04 | 054 | 061 | 06 | 07 | 079 | 06 |
| Barber | 0 | 04 | 04 | 048 | 0410 | 062 | 04 |
| Dhobi (washerman) | 036 | 04 | 0 | 064 | 0610 | 0911 | 06 |
| Soap and soapnut | 01 | 01 | 018 | 0 1 3 | 018 | 016 | 01 |
| Liquor, foreign | 01 | 048 | 0410 | 066 | 01011 | 2149 | 097 |
| Liquor, country ... | 12 | 11 | 134 | 11111 | 176 | 1011 | 1410 |
| Cheroots |  | 095 | 098 | 0122 | 01111 | 0152 | 0111 |
| Other preparations of tobacoo ... | $010$ |  | $\begin{array}{lll} 0 & 1 & 11 \end{array}$ | $01$ | $\begin{array}{lll} 0 & 1 & 6 \end{array}$ |  |  |
| Betel | 027 | 03 | 0 | 05 | 08 | 076 | 0 |
| Hair oil | 018 | 0111 | 02 | 02 | 025 | 035 | 023 |
| Interest on debts | 03 | 05 | 06 | 09 | 06611 | 096 | 0611 |
| Religious festivals | 05 | 05 | 07 | 08 | 09 | 0910 | 077 |
| Others | 02 | 0.2 | 04 | 05 | 0 | $\begin{array}{llll}0 & 8 & 7\end{array}$ | 0410 |
| Total Miscellaneous | 349 | 3131 | 4997 | 51011 | 515 | 8910 | $522$ |

TABLE XIV-cortd

- Average Manthly Expendibure of Single Men on Renl. Fuel and LightixE Household Requisites and Miscellaneaus Items.
(Hindustanis.)

| Income class. | Under <br> Rs. 20. | $\begin{aligned} & \text { Rs. } 20 \\ & \text { and } \\ & \text { under } \\ & \text { Rs. } 25 . \end{aligned}$ | $\begin{aligned} & \text { Rs. } 25 \\ & \text { and } \\ & \text { under } \\ & \text { Rs. } 30 . \end{aligned}$ | $\left\{\begin{array}{c} \because R_{3} 30 \\ \text { and } \\ \text { undet } \\ \text { Rs. } 35 . \end{array}\right.$ | Rs. 35 and under Rs. 40. | Above $\text { Rs. } 40 .$ | All |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Namber of budgets | 94 | 354 | 175 | 62 | 44 | 39 | 768 |
| Average monthly income | $186$ | $8$ | $\left\|\begin{array}{lll} \text { Rs. } & \text { A } & \overline{7} \\ 26 & 7 & 5 \end{array}\right\|$ | $13110$ | $\begin{array}{lll}\text { Rs. A. } & \text { P. } \\ 37 & 13 & 8\end{array}$ | $\begin{array}{llll}\text { Rs. A. } & \text { P. } \\ 51 & 8 & 3\end{array}$ | Rs. A, 2 |
|  | Monttry expenditure. |  |  |  |  |  |  |
| Rent | $\left\|\begin{array}{ccc} R, & A & F \\ 0 & : 5 & 5 \end{array}\right\|$ | $\begin{array}{lll} \text { Rg. } & \text { K. } & 7 \\ 1 & 6 & 2 \end{array}$ | Rs.  <br> 1 7 | $1129$ |  | $\begin{array}{lcc} \text { zs. } & \text { K. } \\ 3 & \mathbf{i} & 6 \end{array}$ | $\begin{array}{lll} 85 & 8 & R \\ 18 & 8 \end{array}$ |
| FirewoodKeposene oilElectric lightOther fuel and light.ing | $\begin{array}{lll}0 & 9 & 4 \\ 0 & 2 & 0\end{array}$ | $\begin{array}{llll}0 & 9 & 10 \\ 0 & 1 & 11\end{array}$ | $\begin{array}{rrrr}0 & 10 & 2 \\ 0 & 2 & 2\end{array}$ | $\begin{array}{llll}0 & 10 & 10 \\ 0 & 2 & 8\end{array}$ | $\begin{array}{rrrr}0 & 10 & 4 \\ 0 & 2 & 11\end{array}$ | Or | $\begin{array}{ccc}0 & 10 & 0 \\ 0 & 2 & 2\end{array}$ |
|  | 0 | 028 | 010 | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 015 | 01 | 0110 |
|  | $001$ | 002 |  | 004 | 00 | 0 0. 5 | 0 0 |
| Total Fuel and Lighting | 0128 | 014 6 | 0136 | 01411 | 015 | 015 | 014.2 |
| Cote and charpoys. Mats | $0 \cdot 0$ | 00 | 00 |  | 0 a 010 | 01 | $00^{0} 8$ |
|  | 0.1 | 00 | 00 | 004 | 00 | 00 | $0 \quad 0.2$ |
| Mattresses |  | 0 | 0 O 1 | 0 O 1 | 0 O | 0 | 00 |
| Blankets: | 0.011 | 01 | 01 | 014 | 01 | 01 | 1 |
| Sheets ... | 01 | 01 | 01 | 01 | 01111 | 017 | 0 I |
| Pillowe andi pillow cases | 004 | 0 O 0 S | $\begin{array}{llll}0 & 0 & 4\end{array}$ | $\begin{array}{llll}0 & 0 & 7\end{array}$ | 00 | 0 0 010 | 00 |
| Masquito nets |  |  |  |  | 00 | 003 |  |
| Cooking pote | 018 | 0110 | 0111 | 0111 | 0110 | 0111 | 0 I 10 |
| Fumiture | 003 | 004 | 06 | 007 | 007 | 00 | 005 |
| Othery | - | - 0 |  |  |  |  | 0 O |
| Total Household Requigites. | 050 | 0511 | 062 | 06 | 87 | 0885 | $0 \cdot 6$ |
| Bawber | $\begin{array}{llll}0 & 3 & 10\end{array}$ | 045 | $0{ }_{0}^{0} 423$ | 0 | 94 | 058 | 04 |
|  | 0.6 | 0 lll 19 | $\begin{array}{llll}0 & 1 & 9\end{array}$ | 03 | 0 A | 0.6 | 02 |
| Sotup anisotprati. | 034 | 0310 | $00_{0} 311$ | 03 | 08 | 9, | $\sigma^{\prime} 3$ |
| $\begin{array}{ll}\text { Liquor, } \\ \text { Tobutiry } & . . . \\ \text { Tobacor } & \text { \% }\end{array}$ |  |  | 0 0 1 | 0 | 0 | $\cdots$ | 0.0 |
|  | 03 | 04 | 0410 | 05 | 05 | 0. 6 | 0 |
| Betel . ... | 024 | 031 | 036 | 05 | 0 S | 06 | 0 0 |
| Hair on mame | 0.9 | - 08 | 9.98 | 0 | 00 | $0{ }^{\circ}$ | 0.0 |
| Interedt on debte $\times$ |  | 002 | $0{ }^{-1}$ | 01 | 0 - | $\begin{array}{llll}0 & 1 & 3\end{array}$ | 0.5 |
|  | - 42 | 04 | 0410 | 07 | 09 | 013,2 | 0 |
| Others ; i . ... | 00.3 | $009$ | $010$ | $016$ |  | $67$ |  |
| Total Mincelinneare | 438 | 17 7 | 1.0 | 115 | $27$ | $3_{n} 4.0$ | $1,6,10$ |

TABLE XIV-concld.
Average Monthly Expenditure of Single Men on Rent, Fuel aud Lighting, Household Requisites and Miscellaneous Items.
(Chittagonians.)

| Income class. | Under <br> Rs. 20. | Rs. 20 and under Rs. 25. | $\begin{gathered} \text { Rs. } 25 \\ \text { and } \\ \text { under } \\ \text { Rs. } 30 . \end{gathered}$ | $\begin{gathered} \text { Rs. } 30 \\ \text { and } \\ \text { under } \\ \text { Rs. } 35 . \end{gathered}$ | Ks. 35 and under Rs. 40. | Above <br> Rs. 40. | $\begin{gathered} \text { All } \\ \text { incomes. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of budgets | 27 | 228 | 150 | 129 | 63 | 57 | 654 |
| Average monthly income. | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } & \text { P. } \\ 18 & 14 & 1 \end{array}\right\|$ | $\begin{array}{cc}\text { A. } & \text { P } \\ 14 & 6\end{array}$ | Rs. A. P.   <br>    <br> 6 5 9 | $\begin{array}{lll}\text { Rs. A. P. } \\ 31 & 3 & 6\end{array}$ | $\begin{array}{lll}\text { Rs. A. P. } \\ 36 & 9 & 1\end{array}$ | A. $P$ | $\begin{array}{lll}\text { Rs. A. P. } \\ 29 & 5 & 3\end{array}$ |

Monthly Expenditure.

| Rent ... | $\left\|\begin{array}{rr} \text { Rs. A } & \text { P. } \\ 0 & 12 \end{array}\right\|$ | $\left\|\begin{array}{rrr} \text { Rs. } & \text { A. } \\ 0 & 15 & 7 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rs. } & \text { A. } \\ 1 & 4 & 3 \end{array}\right\|$ | $\begin{array}{ccc}\text { Rs. A. } & \text { P. } \\ 1 & 6 & 8\end{array}$ | $\left\|\begin{array}{cc} \text { Rs. } & \text { A. } \\ 1 & 10 \\ 10 \end{array}\right\|$ | $\left\|\begin{array}{ccc} \text { Rz } & A & P \\ 2 & 3 & 5 \end{array}\right\|$ |  | $\begin{array}{ll} \text { s. A. } & \text { P } \\ 1 & 410 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Firewood | 08 | 0 8 | $\begin{array}{llll}0 & 8 & 3\end{array}$ | 08 | 08 | 0880 |  | 08 |
| Kerosene oil | 02 | 02 | 0 1 11 | 02 | 02 | 028 |  | 2 |
| Electric light | 01 | 01 | $\begin{array}{llll}0 & 2 & 3\end{array}$ | 02.01 | 016 | $\begin{array}{lll}0 & 2 & 9\end{array}$ |  | 0 |
| Other fuel and lighting | 003 | 0 O 4 | 005 | 005 | 004 | 00 |  | 0 |
| Total Fuel and Lighting ... | ${ }^{0} 12$ | 0126 | 01211 | 0130 | 0129 | 01310 |  | 1210 |
| Cots or charpoys |  |  |  |  | 00 | 002 |  | 0 |
| Mats ... | 01 | 0 1 10 | 0 O 111 | $0 \begin{array}{lll}0 & 1 & 3\end{array}$ | 013 | 0 |  | 1 |
| Matress |  | 00 | 00 | 0 | $\begin{array}{llll}0 & 0 & 7\end{array}$ | 0 0 010 |  | 0 |
| Blankets | 01 | 01 | 0 | 01 | 0.13 | 016 |  | - 1 |
| Sheets | 00 | 002 | 006 | 0 O | 010 | 0 |  | 0 |
| Pillows and pillow cases | 0 0 $\quad 8$ | 008 | 008 |  | 009 |  |  | , |
| Mosquito nets |  |  |  | 0 | 0 | 00 |  | 01 |
| Cooking pots | 0110 | 0 | 0 | 0 | 01 | $\begin{array}{lll}0 & 1 & 7\end{array}$ |  | 18 |
| Furniture | $0 \quad 0 \quad 3$ | 0 O | 00 | 00 | 00 | 0 - 10 | 0 | 06 |
| Total Hoasehold Requisites | 05 | 052 | 05 | 06 | 07 | 09 | 0 | 61 |
| Barber | $0 \begin{array}{llll}0 & 3 & 11\end{array}$ | $0 \cdot 40$ | 0 | 0 | 05 |  |  | 4 |
| Dhobi (washerman) | 0 0 11 <br> 0   | 0 | $0 \cdot 0$ | $\begin{array}{llll}0 & 3 & 11 \\ 0 & 3 & 10\end{array}$ | 0 | 08 |  | 2 2 |
| Soap and soapnut | 035 | 0 4 | 04 |  | 029 | 0 |  | - 3 |
| Cheroots . |  |  |  | 00 |  | 00 |  | ... |
| Other preparations of tobacco | 05 | 060 | 06 |  | 077 |  |  | 6 |
| Betel | 09 | 080 | 08 | 010 | 011 | 015 |  | 97 |
| Hair oil | 0 0 3 | 0 | 00 | 0 | 01 | 0 |  | 0 |
| Interest an debts |  | $\begin{array}{llll}0 & 1 & 0\end{array}$ | 0 | 00 | 00 | 0 O |  | 0 |
| Religious feativala | 0 | 0.411 | 06 | 0 | 012 | 121 | 0 | 80 |
| Others | 03 | 0.510 | 06 | 07 | 013 | 147 | 0 | d 2 |
| Total Miscelianeons | 21311 | 228 | 2510 | 313 | 31210 | 5 |  | 12 |

TABLE XV.
Average Quanlity and Cost of Food consumed per month by Single Men, averages being given for All Men and for Men purchasing the Article.
(Tamils.)


Nork -1 vist $=\mathbf{3} 60 \mathrm{lb}$, and 1 tical $=01$ vioer

TABLE XV—contd.
Avorage Quantily and Cost of Food consumad per month by Single Ment. averages being given for all Men and for Men prurchasing the Article.
(Telugus).


Nore -1 viss $=360 \mathrm{lbs}$.

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TABLE XV-contd.
Avorage Quantily and Cost of Food consumed per month by Single Meut, averagos baing givan for all Mon and for Mon purchasing the Artichen

## (Uriyas.)

Number of budgets ... ... ... 128 Average monthly income ... Rs. $35-0-3$


- ... - NuFw- 1 viss $=3: 60 \mathrm{lbs}$, and I tical $=0,01$ wies.


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TABLE XV-contd.
Aperase Quantity and Cost of Food consumed per month by Single Men. averages beind given for All Mon and for Men purchasing the Arlicle.
(Hindustanis.)

| Number of budgets Average monthly income |  | $\cdots$ |  |  |  | $\begin{aligned} & 768 \\ & 26.0-1 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - | All men. |  | Price of article. | Men purchasing. |  |  |
| Item. | Quantity consumed per month per mà. | Monthy expenditure per man. |  | Percentage of all men. | Quantity consumed per month per man. | Monthly expenditure per man. |
|  |  | R's. A. P. | Rs. A. P. |  |  | Rs. A. P. |
| Rice $\quad$... Viss | 753 | $\begin{array}{llll}2 & 5 & 5\end{array}$ | $\begin{array}{llll}0 & 5 & 0\end{array}$ | 94.3 | 798 | 274 |
| Wheat flour *o | 467 | 1159 | 0610 | 83.7 | $5 \cdot 58$ | 2511 |
| Arhar - ... | 208 | 0153 | 074 | 966 | 216 | 01510 |
| Urad - ... | -12 | 0 0 9. | 063 | 229 | -50 | 031 |
| Moong - ... | -07 | 006 | $\begin{array}{llll}0 & 7 & 8\end{array}$ | 94 | 70 | 0859 |
| Musur ... ., | 02 | 002 | 063 | 27 | -89 | 056 |
| Chana ... | -18 | 010 | 057 | 247 | '72 | 03.11 |
| Sugar, refined | -05 | 00 | 088 | - 91 | . 62 | 055 |
| Gur ... ${ }^{\text {ch }}$ | 01 | 0 | 084 | 311 | -50 | 043 |
| Tea . ... Ibs. | 01 | 003 | 0159 | 63 | -25 | 041 |
| Fish, fresh ... Viss | -19 | 0 0 3111 | $1 \begin{array}{lll}1 & 4 & 7\end{array}$ | 25.8 | $\cdot 74$ | 01410 |
| Beef | 01 | $\begin{array}{llll}0 & 0 & 3\end{array}$ | 133 | 37 | $\cdot 34$ | 068 |
| Mutton | 03 | 0 | 249 | 76 | -44 | 110 |
| Fowls | $\cdots$ | 002 | 298 | 18 | -22 | 091 |
| Milk, fresh ... | $\cdot 31$ | 038 | 01110 | 91 | $3 \cdot 42$ | 279 |
| Ghee ... | -28 | $1+2$ | 480 | $87 \cdot 1$ | -31 | 172 |
| Salt | 45 | $\begin{array}{llll}1 & 1 & 4\end{array}$ | 030 | 99.9 | $\cdot 45$ | 015 |
| Spices and other condiments. | - | 0411 | - | - 1000 | - | 0 4il |
| Potatoes ... Viss | 1.25 | 0 | 043 | 98.3 | 127 | 055 |
| Onions ... | -24 | 012 | 0410 | 518 | 47 | 023 |
| Fruit and other <br> vegetables <br> Mustard cil ... Viss | -16 | $\begin{array}{lll} 0 & 7 & 6 \\ 0 & 4 & 3 \end{array}$ | 17107 | 908 826 | -20 | $\begin{array}{lll} 0 & 8 & 3 \\ 0 & 5 & 1 \end{array}$ |
| Food bought and con- <br> sumed away <br> home :-fromOthersOn | 2 | $\begin{array}{lll}0 & 1 & 7 \\ 0 & 1 & 7\end{array}$ | 0010 | 70 | 27 | 1611 |
| Total Food | - | 909 | - | - | - | - |

Nore_- 1 viss $=360$ lbs.

TABLE XV-concld.
Average Qwantity and Cosi of Food consumed per month by Single Men, averages being given for All Men and for Men purchasing the Article.

## (Chittagonians.)



Note- -1 viss $=360$ lbs.

## ( 136 )

TABLE XVI.
Aspmage Number of Articies of Clothing purchased per year and Average Montilly Expenditwe on these Anticlat by Single Man, averages being given for All Men and for Men purchasing the Article.

Tamils. Telugus.

Wumber of budgets Average monthly incorse
... 132 1,339
Rs. 27-7-8 Rs. 28-14-10

| - |  | All men. |  | Price of article. | Men purchasing. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Item. | Number af articles purchased per year per man. | Monthly expenditure per man. |  | Percentage of all men. | Number of articles purchased per year per man. | Monthy expenditure per man. |

Tamils.

|  |  | Rs. A. P. | Rs. A. P. |  |  | Rs. A. P. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dhotis ... No. | 2.60 | 0510 | 11010 | 95.5 | 272 | 061 |
| Langyís, cotton " | 78 | 0 | 1102 | 750 | 117 | 027 |
| Banians and bandis " | 115 | 011 | 0114 | $52 \cdot 3$ | 219 | 02 |
| Half shirts and shirts | 2.04 | 0410 | 1125 | 98.5 | 207 | 0411 |
| Cozts $\quad .$. | 10 | 006 | 3118 | 197 | ${ }^{2} 51$ | 026 |
| Upper cloths ... | 1.01 | 019 | 1449 | 97.0 | 1.04 | 0110 |
| Shoes | '02 | 001 | 480 | 30 | -59 | 038 |
| Sandals, leather | 01 | - | 2400 | 1.5 | 43 | 0111 |
| Umbrelias | $\cdot 20$ | $\begin{array}{lll}0 & 0 & 7\end{array}$ | $\begin{array}{llll}2 & 5 & 8\end{array}$ | 28.8 | . 68 | 022 |
| Total Clothing | - | 109 | - | - | - | - |

Telugus.

|  |  | Rs, A. P. | Rs. A. P. |  |  | Rs. A. P. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dhotis ... No. | 3.08 | 070 | 1111 | 997 | 9309 | 070 |
| Longyis, cotton | $\cdot 21$ | 005 | 18812 | 181 | 51.15 | 024 |
| Short pants and trousers | . 6 | 0 0 2 | 1129 | 29 | 192 | 048 |
| Banians and bandis | 112 | 011 | 0117 | $48 \%$ | $2 \cdot 30$ | 023 |
| Half shirts and shirts | 236 | 056 | 11111 | 966 | 244 | 058 |
| Coats | '21 | 0111 | 31310 | 305 | $\cdot 69$ | 037 |
| Upper cloths ... | 2.22 | 0310 | 149 | 99.3 | $2 \cdot 23$ | 0310 |
| Shoes ... Pairs | . 01 |  | 468 | 11 | 61 | 0 0 |
| Sandals, leather - No. | 03 | $0 \cdot 0$ | $\begin{array}{lll}2 & 3 & 9\end{array}$ | 49 | -43 | 0110 |
| $\begin{array}{lll}\text { Umbrellas } & \text {... No. } \\ \text { Others } & \text {.. } & -\end{array}$ | $\cdot 07$ | $\begin{array}{llll}0 & 0 & 3 \\ 0 & 0 & 3\end{array}$ | 2511 | 165 | -45 | 015 |
| Total Clothing | - | 1. 37 | - | - | - | - |

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TABLE XVI-conid.
Anenage mumber of Antioles of Clothing pwrcinased ter year and Averugb Mowly Expmaditure an there Aricles by single mons, macrages being given for All Men and for Men surchasing the Article.

Uriyas Hindustanis.

Number of bodgets Average monthly income

… $\quad$| 128 |
| :--- | :--- |

Rs. 35-0-3

768
Rs. 26-0-1


|  |  | Rs. A. P. | Rs. A. P. |  |  | Rs. A. P. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dhotis ... Na | 349 | 092 | 1117 | 1000 | $3 \cdot 99$ | 092 |
| Banians and bandis : | 114 | 011 | 0119 | 85.2 | 130 | 013 |
| Half shirte and shirts | 270 | 0 0 0 | 1128 | 992 | 272 | 066 |
| Coats -- | '54 | 029 | 3132 | 828 | 65 | 034 |
| Upper cloths | 109 | 020 | $1 \begin{array}{lll}1 & 6\end{array}$ | $98 \cdot 4$ | 110 | 020 |
| Sandals, leather Pairs | 01 | $\cdots$ | 2133 | 16 | 49 | 0 (1) 10 |
| Umbrellas Na. | 06 | 002 | 278 | 141 | 45 | 016 |
| Others | - | 002 |  | - | - |  |
| Total Clothing | - | 159 | - | - | - | - |

Hindustanis.


TABLE XVI-concld.
Average Number of Articles of Clothing purchased per year and Average Monthly Expenditure on these Articles by Single Men, averages being given for All Men and for Men purchasing the Article.

## (Chittagoniars.)

| Number of budgets | ... | ... | 654 |
| :--- | :--- | :--- | ---: | ---: |
| Average monthly income | ... | ... | Rs. 29-5-3 |


| Item. | All men. |  | Price of article. | Men purchasing. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number lof article purchasex per year per man. | Monthty expenditure per man. |  | Percentage of all men. | Number of articles purchased Fer year per man. | Monthly expenditure per man. |

## Chittagonians.



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TABLE XVII.
Aperage Monthly Expendilure by Single Men on Rent, Fuel and Lighting, Household Requisites and certain Miscellaneous Items, averages being given for All Men and for Men purchasing the Article.

| Tamils. | Telugus. |
| :---: | :---: |
| 132 | 1,339 |
| $27-7.8$ | Rs. 28-14-10 |


| Item. |  | Tamils. |  |  | Telugus. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | All men. <br> Monthly expenditure per man. | Men purchasing. |  | All men. <br> Monthly expenditure per man. | Men purchasing. |  |
|  |  | Percentage of all men. | Monthly expenditure per man. | Percentage of all men. |  | Monthly expenditure per man. |
| Rent |  |  | $\begin{aligned} & \text { Rs. A. } \mathbf{P} . \\ & 1 \\ & 1 \end{aligned}$ | 100\% | $\begin{aligned} & \text { Rs. A. P. } \\ & 1 \\ & 1 \end{aligned}$ | $\begin{array}{ccc} \text { Rs. A. } & \text { P. } \\ 1 & 7 & 3 \end{array}$ | 1000 | $\begin{aligned} & \text { Rs. A. } \\ & \hline 17 \\ & \hline \end{aligned}$ |
| Firewood Kerosene oil Electric light Other fuel and lighting |  | $\begin{array}{lll}0 & 8 & 1\end{array}$ | 1000 | 0 ¢ 81 | 0109 | 1000 | 0109 |
|  |  | 0 | 96.2 | 036 | 025 | 82.8 | 0211 |
|  |  | 0 | 152 | 083 | 0011 | 179 | 0411 |
|  |  | 0 O 15 | 97.0 | 016 | 010 | 743 | 013 |
| Total Fuel and Lighting |  | 0142 | - | - | 0150 | - | - |
| Cots or charpoys ... |  | $\begin{array}{lll}0 & 0 & 2\end{array}$ | 129 | 017 | 0 O 010 | 63.4 | 0114 |
| Mats ... |  | 0 0 11 | 864 | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 0 | 25.2 | 0011 |
| Mattresses |  |  | 30 | 0010 | $\begin{array}{llll}0 & 0 & 1\end{array}$ | 61 | 0010 |
| Slankets ... |  | 016 | $84 \cdot 1$ | 019 | D 16 | $72 \cdot 5$ | 021 |
|  |  | 0 | 26.5 | 028 | 007 | $27-9$ | 022 |
| Pillows and pillow cases |  | 0 | 947 | 088 | 005 | 68.2 | 007 |
| Cooking pots ... |  | 019 | 99.2 | 019 | 020 | 996 | 020 |
| Furniture ... |  | 0010 | 82.6 | 010 | 007 | $76 \%$ | 0010 |
| Total Household Requisites. |  | 067 | - | - | 063 | - | - |
| Barber ... ... |  | 0411 | 1000 | 0411 | 044 | $100 \%$ | 044 |
| Dhobi (washerman) ... |  | 0513 | 90.2 | 0510 | 0 | 93.4 | 062 |
| Soap and soapnut |  | 020 | 932 | 0222 | 0 O 15 | 603 | 025 |
|  |  | $\begin{array}{llll}0 & 8 & 8\end{array}$ | 20.5 | 2103 | $\begin{array}{llll}0 & 9 & 4\end{array}$ | 17.3 | 361 |
| Liquor, country |  | 0149 | 43.9 | 217 | $1 \begin{array}{llll}1 & 7 & 3\end{array}$ | 71.4 | 206 |
|  |  | 0559 | 599 | 077 | $\begin{array}{llll}0 & 11 & 7\end{array}$ | 91.3 | 0128 |
| Other preparations of tobacca. |  | 032 | 46.2 | 069 | $\begin{array}{llll}0 & 1 & 2\end{array}$ | 22.4 | 054 |
| Betel Hair | ** | 0811 | $94 \cdot 7$ | 095 | 0 | 559 | 085 |
|  | , | 023 | 95.5 | 024 | 020 | 940 | 022 |
| Interest on debts |  | 0 O 06 | $2 \cdot 3$ | $1{ }_{1} 14 \begin{aligned} & 1\end{aligned}$ | 0610 | 179 | 264 |
| Religious festivals |  | 0 | 1090 | 089 | 077 | 949 | 0711 |
| Others | ... ... | 073 | ... |  | 0 - 4.7 | ¢ | - 21 |
| Total Miscellaneous |  | 482 | - | - | 526 | -' | - |

TABLE XVII-conid.
Hierage Monthly Expenditure by Single Nen on Rent, Fuel and Lighting, Household Requisites and cerlain Miscellancous Items, averages being given for All Men and for Men purchasing the Article.

Uriyas.

| Numbet of budgets Average monthly income |  | $\begin{array}{lr} \ldots: & 128 \\ \ldots & \text { Rs, } 35-0-3 \end{array}$ |  | Rs. $\begin{array}{r}768-0-1\end{array}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item. | Uriyas. |  |  | Hindustanis. |  |  |
|  | All men. | Men purchasing. |  | All men. | Men purchasing. |  |
|  | Monthly expenditure per man. | Percentage of all men. | Monthly expenditure per man. | Monthy expenditure per man. | Percentage of all men. | Monthly expendture per man. |
| Rent | $\begin{array}{ccc} \text { Rs. A. } & \text { P. } \\ 1 & 9 & 4 \end{array}$ | 1000 | $\left\lvert\, \begin{array}{lll} \text { Rs. A. } & \text { P. } \\ 1 & 9 & 4 \end{array}\right.$ | $\left\lvert\, \begin{array}{ccc} \text { Rs. } & \text { A. } & \mathbf{P} . \\ 1 & 8 & 2 \end{array}\right.$ | 9211 | Rs. A. $P$ 183 |
| Frewood | 0111 | $100 \cdot 0$ | 011 | 0100 | $100 \%$ | 010 0 |
| Kerosene oil | 026 | $66 \cdot 4$ | 0319 | 022 | 734 | 0211 |
| Electric light | 009 | 27.4 | 0210 | 0110 | 289 | $0+10$ |
| Other fuel and lighting | 011 | 84. | 014 | 002 | 341 | 07 |
| Total Fuel and Lighting | 0155 | - | - | 0142 | - | - |
| Cors or charpnys ... Mats | $\begin{array}{lll}0 & 1 & 2 \\ 0 & 0 & 2\end{array}$ | 781 227 | $\begin{array}{llr}0 & 1 & 6 \\ 0 & 0 & 10\end{array}$ | $\begin{array}{lll}0 & 0 & 8 \\ 0 & 0 & 2\end{array}$ | 75.8 13.4 | $\begin{array}{cccc}0 & 0 & 11 \\ 0 & 1 & 1\end{array}$ |
| Mattresses | 0 | $6 \cdot 3$ | 010 | 0 0 01 | 66 | 011 |
| Blankets ... | 0 123 | 80.5 | 0 | $\begin{array}{llll}0 & 1 & 3\end{array}$ | 906 | 015 |
| Sheets ... | 010 | 47.7 | 021 | 012 | 73.6 | 018 |
| Fillors and pillow cases | 005 | 820 | 006 | 0 O 0 | 630 | 0 O |
| Mosquito nets | $\cdots$ |  | $\cdots$ |  | 14 | 018 |
| Cooking pots | 017 | 1000 | 017 | 0 1 10 | 99.9 | - 110 |
| Furniture | 010 | 906 | 011 | 005 | 1747 | 007 |
| Total Household *- Requisites. | 068 | - | - | 062 | - | - |
| Barber | 064 | $100 \cdot 0$ | $0{ }^{3} 864$ | 044 | 99.7 | $\begin{array}{llll}0 & 4 & 4\end{array}$ |
| Dhobi (washerman) | 088 | 97.7 |  | $\begin{array}{llll}0 & 2 & 1 \\ 0 & 3 & 8\end{array}$ | 294 | 071 |
| Soap and soapnut Liquor, foreign | $\begin{array}{cccc}0 & 1 & 4 \\ 0 & 12 & 10\end{array}$ | $55 \cdot 5$ | $\begin{array}{llll}0 & 2 & 4 \\ 3 & 0 & 4\end{array}$ | $\begin{array}{llll}0 & 3 & 8\end{array}$ | 892 | 041 |
| Liquor, foreign | 01210 | 25.6 |  | 0 | - 8 | 06 |
| Ciquor, country Chercols | $\begin{array}{llll}0 & 2 & 7 \\ 0 & 7 & 6\end{array}$ | 59 $57 \%$ | 2 $14 \begin{array}{lll}14 & 10 \\ 0 & 13 & 2\end{array}$ | 001 | $\checkmark$ | 060 |
| Other preparations of tobacca | 044 | 83.6 | 062 | 046 | 316 | 0 56 |
| Betet | 01111 | 91.4 | 0130 | 038 | $45 \cdot 3$ | 081 |
| Hair oil | 053 | 91.4 | 059 | 038 | 219 | 0214 |
| Interest on debts | 0142 | $25 \cdot 8$ | 370 | 003 | 10 | 180 |
| Religious festivals ... | 0610 | 97.7 | - 70 | 0 0 5 | 435 | - 5 \% |
| Others $\quad .$. | 066 | - | - | 014 | - | - |
| Tolal Miscellaneous - | $5 \cdot 1$ | - | - | 1910 | - |  |

## TABLE XVII-concld.

Average Monthly Expenditure by Single Men on Rent, Fuel and Lighting, Houschold Requisites and certain Miscellaneous Items, averages being given for All Men and for Men purchasing the Article.
(Chittagonians.)

| Number of budgets | ... | ... | 654 |
| :--- | :--- | :--- | :--- |
| Average monthly income | ... | ... | Rs. 29-5-3 |




STATISTICAL TABLES.
C.-Tamil and Telugu Family Budgets.

XVIII.
and Group Expenditure.
Telugu Families.)

| Expenditure on |  |  |  |  |  | Total expenditure. | Balance of income over expenditure. | Remistance to dependants. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food. | Clothing. | House rent. | Fuel ant Lighting. | Household Requisites. | Miscellaneous. |  |  |  |

ils.

| Rs. A. | Rs. | Rs |  | Rs. A. P. | Rs. A. P. | Rs. A. P. | Rs, A. | Rs. A. ${ }^{\text {P. }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1913 | 2117 | $2 \begin{array}{lll}2 & 2 & 10\end{array}$ | $1 \begin{array}{lll}1 & 5 & 2\end{array}$ | C 1210 | $\begin{array}{llll}7 & 3 & 8\end{array}$ | 3413 | $3 \quad 210$ | 0011 |
| 2014 | 340 | 2131 | $\begin{array}{llll}1 & 8 & 2\end{array}$ | 01510 | 81211 | $\begin{array}{llll}38 & 4 & 4\end{array}$ | 7148 | 153 |
| $\begin{array}{llll}20 & 4 & 11\end{array}$ | 215 | 276 | 166 | 0142 | 715 | $3515 \quad 7$ | $\begin{array}{llll}5 & 5 & 2\end{array}$ | 010 |

as Percentages of Total Income.

| $\begin{aligned} & 532 \\ & 452 \end{aligned}$ | $\begin{aligned} & 7 \cdot 3 \\ & 70 \end{aligned}$ | $\begin{aligned} & 58 \\ & 6.1 \end{aligned}$ | 3.6 3.3 | 22 21 | 19.4 19.1 | $91 \cdot 5$ 82.9 | 85 171 | 298 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 492 | 72 | 6.0 | 3*4 | 21 | 19.2 | 871 | 129 | 15 |

## ture on Groups.

| 58.2 54.6 | 80 8.5 | 6.4 74 | 3.9 3.9 | 24 26 | 21.2 23.0 | 100 100 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $56 \cdot 4$ | 82 | $6 \cdot 9$ | 3.9 | 23 | 22.1 | 100 | \% | - |

gus.

| $\begin{array}{lll}21 & 0 & 5 \\ 22 & 0 & 3\end{array}$ | 2 | $\begin{array}{ll}9 & 5 \\ 7 & 4\end{array}$ | $\begin{array}{rrr}2 & 12 \\ 4 & 7\end{array}$ | 3 | 1 110 | 5 |  | 8 | 8 9 | 3 |  | 14 | 3 |  |  |  |  | 412 | $\begin{array}{r}3 \\ \hline 10 \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 211110 | 2 | 711 | 315 | 9 | 110 | 1 | 01010 | 8 | 0 | 0 | 38 | 8 | 5 |  | 613 | 6 |  | 312 | 6 |

as Percentages of Total Income.

| 57.4 | 7.1 | 76 | 4.3 | 1.4 | 17.8 | 95.6 | 4.4 | 2.3 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 451 | 5.0 | 9.1 | 3.4 | 1.5 | 176 | 81.8 | 18.2 | 10.1 |
| 479 | 5.5 | 8.8 | 3.6 | 1.5 | 176 | 84.9 | 15.1 | 8.3 |

ture on Groups.

| 600 552 | 74 642 | 79 1192 | 4.5 4.1 | 1.5 1.9 | $18 \cdot 6$ 215 | 100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 56.4 | 6.5 | 10.3 | 4.2 | $1 \cdot 8$ | 208 | 100 |  |

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TABLE XIX.
Average Quantity and Cost of Food consumed por month per Fansily. (Tamil Families.)


Notz.- 1 viss $=3.60$ ibs. and 1 ticalro 01 viss.

TABLE XIX-conid.
Amarage Quandity and Cosi of Food consumed per month par Fasuily.
(Telugu Families.)

| - Income per anit. | Under Rs. 15. | $\begin{array}{\|c\|} \text { Rs. } 15 \\ \hline \text { prod above } \\ \hline \end{array}$ | $\begin{gathered} \text { An } \\ \text { incomes- } \end{gathered}$ | Under Rs. 15. | Rs. 15 and above | AII <br> ìmermes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families ... | 39 | 100 | 139 | 39 | 100 | 139 |
| Average number of units | 301 | 241 | 258 | 301 | 241 | 2-58 |
| Average monthly income | Rs. A. $\mathbf{P}$ <br> 3610 | $\begin{array}{lll} \text { Rs. A. } & \text { P. } \\ 48 & 12 & 4 \end{array}$ | $\begin{array}{lll} \text { Rs } & 2 & 8 \\ 45 & 5 & 10 \end{array}$ | $\begin{array}{lll} \text { Rs A. } & \text { P. } \\ 36 & 10 & 4 \end{array}$ | $\begin{array}{lll} \text { Ks. } & 4 & P \\ 48 & 12 & 4 \end{array}$ | $\begin{aligned} & \text { RS A. P. } \\ & 45 \leqslant 10 \end{aligned}$ |
|  | Quantity | nsumed p | month | Cost | per month |  |
| Rice ... Viss | 2897 | 26.55 | 29.23 | $\begin{array}{llll}\text { Rs. } & \text { A } & \text { P. } \\ 8 & 8 & 4\end{array}$ | $\mathrm{Prs}_{12} \mathrm{~A}^{\text {P }} 10$ | $\begin{aligned} & \text { Rs A P. } \\ & 8000 \end{aligned}$ |
| Arhar .... | 208 | 190 | 1.95 | $0: 25$ | 0123 | 0124 |
| Urad | 05 | 04 | -94 | 004 | 0.3 | $0{ }^{0} 3$ |
| Moong . ... ${ }^{\text {a }}$ | 20: | $\cdot 02$ | :02 | 0 O 2 | 002 | 002 |
| Chana ... | 0 | -2 | 9 H | 0.5 | 001 | 0 - 2 |
| Other Puises | 02 | 03 | 03 | - 92 | 003 | 003 |
| Sugar, refined ... | 04 | 13 | -10 | 0 - 5 | $\begin{array}{llll}0 & 1 & 7\end{array}$ | 013 |
| Gur ... | 47 | 53 | 65 | 099 | 054 | 067 |
| Tea ... bibs. | 17 | '03 | . 07 | 020 | 004 | 0010 |
| Coffee Ticals | 447 | 4-36 | 454 | 021 | 022 | 022 |
| Fish, fresh ... Viss | 1.23 | 162 | 151 | 127 | 1610 | 158 |
| Pish, salted, dry | 85 | -8 | - 86 | 0156 | 101 | 01511 |
| Beef | -14 | -10 | -11 | 027 | 019 | $0 \geq$ |
| Mntbon ... | '57 | -54 | -55 | 124 | 12. | 127 |
| Fowls ... ", | -29 | -44 | 40 | 0143 | $1 \begin{array}{lll}1 & 5 & 3\end{array}$ | 13 |
| Milk. fresh ... | -38 | -72 | 42 | $\begin{array}{llll}0 & 3 & 1\end{array}$ | 067 | 051 |
| Mili, condensed - | - | - | - | 0 0 18 | 017 | - 13 |
| Salt ... Vies | $1 \cdot 30$ | 131 | 130 | 0311 | 0311 | 0311 |
| Tamarind ... | $1 \cdot 10$ | 110 | 110 | 078 | 0616 | - 1 |
| Spices and other condiments | - | - | - | 0148 | 116 | 10 \% |
| Petatoes ... Yiss | 117 | 106 | 1109 | 061 | 053 | 057 |
| Onions ... | 105 | 103 | 1.03 | 059 | - 511 | 0511 |
| Frit and ather vegetables | - | 5 | - | 01511 | 0154 | - 156 |
| Sesamum oil .... Viss | 78 | 70 | 73 | 130 | 104 | 111 |
| Other food ... - | - | - | - | 007 | - 05 | - 6 |
| Food bought and consumed away from home :Tea .,. cups Others | 13 | 28 | 24 | $\begin{array}{llll}0 & 11 & 4 \\ 0 & 13 & 4\end{array}$ | $\begin{array}{lll} 1 & 9 & 7 \\ 1 & 3 & 3 \end{array}$ | $\begin{array}{lll} 1 & 5 & 7 \\ 1 & 7 & 7 \end{array}$ |
| Total Food | - | - | - | 05 | 263 | 112 |

Nortind viss $=3.60 \mathrm{lbs}$ and 1 tical $=01$ viss.

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TABLE XX.
Average number of Articles of Cloihing purchased per year per Family and Average Monthly Expenditure per Family on these Articles.
(Tamil Families.)


## TABLE XX-contd

Average number of Articles of Clothing purchased fer year per Family and Average Monthly Expendilure per Fanily on these Articles.
(Telugu Families).

| Income per mint | Under <br> Rs 15. | Rs. 15 and above | All | Under Rs. 15. | R. 15 | An incomes. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of families ... | 39 | 100 | 139 | 39 | 100 | 139 |
| Average number of men | 110 | 120 | 117 | 110 | 120 | 117 |
| Average namber of women. | 110 | 102 | 104 | 110 | 102 | 104 |
| Average namber of children. | 167 | 63 | 92 | 167 | 63 | 92 |
| Average monthly income | $\begin{aligned} & \text { Rs. A. P. } \\ & 3610 \end{aligned}$ | $\begin{array}{lll} \text { Rs. A. } & \mathbf{P} . \\ 48 & 12 & 4 \end{array}$ | Rs. A. <br> $45 \quad 510$ | $\begin{array}{lll} \text { Rs. A. } & \text { P. } \\ 36 & 10 & 4 \\ 148 \end{array}$ | $\left\|\begin{array}{lll} \text { Rs } & \text { an } & \text { P. } \\ 48 & 12 & 4 \end{array}\right\|$ | Rs. A. 2 $45510$ |
|  | Number | of articles per year. | urchased | Month | ly expendi | twre. |
|  | 316 | 282 | 368 | $\begin{array}{lll} \text { Rs. A. } & \text { P. } \\ 0 & 6 & 7 \end{array}$ |  | $\begin{aligned} & \text { Rs.A. P. } \\ & 0611 \end{aligned}$ |
| Longyis, cotton | 89 | $\cdot 67$ | 71 | 0111 | 013 | 015 |
| Short pants and trousers ... |  | -15 | $\cdot 15$ |  | 005 | 0 0 04 |
| Banians ... ${ }^{\text {. }}$ | 34 | 44 | -87 | 006 | 0011 | 0010 |
| Half shirts and shirts | 212 | -239 | 2-23 | 052 | 05 | 052 |
| Coats (... | -26 | 25 | -26 | 0 | 0 | 0 |
| Upper cloths ... ... | 178 | 200 | 185 | 032 | $\begin{array}{llll}0 & 3 & 3\end{array}$ | 032 |
| Sandais, leather Pairs | $\cdot 16$ | 03 | 08 | 004 | 0001 | 00 |
| Umbrellas ... No. | ... | -13 | 07 |  | 005 | 0 |
| Other clothing | - | - | - | 002 | 003 | 00 |
| Total Men's Clothing - | - | - | - | 1210 | 144 | 1311 |
| Women's Colhing. |  |  |  |  |  |  |
| Saris ... No. | 1.72 | 151 | $1 \cdot 56$ | 096 | 097 | 096 |
| Longyis, cotton | 172 | 128 | 140 | 0 | 030 | $\begin{array}{llll}6 & 3 & 3\end{array}$ |
| Bodices ... | 136 | 140 | 1.10 | 0 O 110 | 016 | 0 O 14 |
| Jackets ... | - 31 | -75 | $\cdot 68$ | 0 | 013 | 011 |
| Upper cloths ... | 115 | -57 | 72 | 0111 | 01 | 013 |
| Total Women's Clolbing | - | - | - | 111 | 103 | 106 |
| Total Children's Clothing | - | - | - | 056 | 029 | 036 |

TABEEXX1.
Averago Mowthly Expenditure fer Family on Rent Fuel and Lighting, Houschold Requisites and Miscellaneous Ltens.
(Tamil and Telugu Families).


STATISTICAL TABLES.
D-Indian Occupational Budgets.

TABLE XXII.

## Coal Carriers.

(Tamils.)

| Nomber of budgets Average monthly income |  | $\begin{aligned} & \ldots \\ & \ldots \\ & \ldots \\ & \text { Rs. } 25-2-11 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity | Cost | Percentages of total income. | Percentages of total expenditure. |
| Rice ... ... Viss | 1252 | $\begin{array}{rrrr}\text { Rs. } & \text { A. } & \text { P. } \\ 3 & \text { P } & 11\end{array}$ | 141 | 22.1 |
| Arhar ... ... , | 110 | 069 | 1.7 | 2.6 |
| Moong ... ... * | 04 | 0 0 04 | $\cdot 1$ | - 1 |
| Chana ... ... . | 09 | 005 | $\cdot 1$ | $\cdot 2$ |
| Gor ... ... ${ }^{\text {a }}$ | 07 | 006 | $\cdot 1$ | '2 |
| Coffee ... e Ticals | -42 | 002 |  | 1 |
| Fish, fresh... ... Viss | $\cdot 48$ | 092 | 23 | 36 |
| Fish, salted, dry ... . | $\cdot 21$ | $0 \begin{array}{lll}0 & 4 & 7\end{array}$ | 11 | 18 |
| Mutton ... ... | -19 | 068 | 17 | 26 |
| Fowls ... ... ." | 08 | 030 | $\cdot 7$ | 12 |
| Mill , fresh ... ... ** | -07 | 0 0 06 | $\cdot 1$ | $\cdot 2$ |
| Salt ... ... | -48 | 016 | $\cdot 4$ | 6 |
| Tamarind ... $\because$ " | 45 | 026 | 6 | 1.0 |
| Spices and other condi- ments | - | $0 \begin{array}{lll}0 & 4 & 1\end{array}$ | 10 | 16 |
| Potatoes ... ... Viss | -38 | 0111 | 5 | 7 |
| Onions ... $\cdots$.. | . 62 | 039 | 9 | 15 |
| Fruit and other vegetables <br> Sesamum oil <br> ... Viss Other food ... | ${ }^{-28}$ | $\begin{array}{lll}0 & 9 & 8 \\ 0 & 6 & 5 \\ 0 & 2 & 3\end{array}$ | 24 1.6 0 | 38 2.5 -9 |
| Food bought and consumed away from home :Tea <br> ... Cups Coffee Others <br> $\cdots$ \# | 10 | $\begin{array}{lll}0 & 7 & 7 \\ 0 & 1 & 0 \\ 0 & 0 & 6\end{array}$ | $\begin{array}{r}19 \\ \hline 2 \\ \hline 1\end{array}$ | 29 .4 .2 |
| Total Food | - | 824 | 32-3 | 50.6 |
| Total Fuel and Lighting | - | 0112 | 2.8 | 43 |
| Total Clothing | - | 125 | 46 | 72 |
| House Rent | - | 01210 | 32 | 50 |
| Total Household Requisites - | - | 072 | 1:8 | 28 |
| Liquor Tobacco and betel | 二 | $\begin{array}{lll}1 & 8 & 3 \\ 1 & 3 & 1 \\ 2 & 2\end{array}$ | 60 47 | 9.4 7.4 |
| Others | - | 222 | $8 \cdot 5$ | $13 \cdot 3$ |
| Total Miscellaneous | - | 4136 | 192 | 301 |
| Total Monthly Expenditure - | - | 1615 | 639 | 1000 |
| Balance of Income over Expenditure | - | 916 | $36 \cdot 1$ | - |
| Remittance to dependants - | - | 694 | 261 | - |

Norm-1 viss $=3.60 \mathrm{lbs}$ and 1 tical $=01$ viss.

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TABLE XXIII.

## Paddy Carriers. <br> (Tamils.)



Notre- -1 iss $=\mathbf{3 . 6 0} \mathrm{lbs}$ and 1 ticad $={ }^{\circ} 01$ viss.

TABLE XXIV.
Hand-cart Pullers.
(Telugus.)


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TABLE XXV.
Skilled Factory Workers.
(Telugus.)

| Namber of budgets Average monthly income |  | $\begin{aligned} & \ldots \\ & \ldots \\ & \ldots 5 \\ & \text { Rs. } 36-6.5 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 12.60 | 3910 | 99 | 16.8 |
| Arhar ... ... | 96 | 060 | 10 | $1 \cdot 7$ |
| Fish, fresh ... ... " | 80 | 0121 | 21 | 35 |
| Fish, salted, dry .... " | 38 | 063 | 11 | 1 '8 |
| Beef ... ... ." | 01 | 004 | $\cdot 1$ | -1 |
| Mution ... ... | -25 | 085 | 1.4 | $2 \cdot 4$ |
| Fowls .... ... | 24 | 0116 | 20 | 35 |
| Mik, fresh ... | 11 | $0 \begin{array}{lll}0 & 1 & 4\end{array}$ | $\cdot 2$ | 4 |
| Salt ... ... | -58 | 0 O 19 | 3 | 5 |
| Tamarind ... ... | $\cdot 57$ | 0310 | 7 | 11 |
| Spices and other condiments | - | 0 8 7 | 15 | 25. |
| Potatoes ... ... Viss | '70 | 0311 | 7 | IT |
| Orions ... $\quad .$. | -59 | 035 | 6 | 1.0 |
| Frait and other vegetables - | - | 088 | $1 \cdot 5$ | 25 |
| Sesamum oil ... Viss | $\cdot 38$ | 092 | 16 | 27 |
| Other food ... - | - | 010 | $\cdot 2$ | 3 |
| Food bought and consumed away from home :- |  |  |  |  |
| Tea ... ... Cups | 24 | $1 \begin{array}{lll}1 & 2 & 4\end{array}$ | 3.1 | $5 \cdot 3$ |
| Coffee... <br> Others | 1 | $\begin{array}{llll}0 & 1 & 1 \\ 0 & 4 & 11\end{array}$ | $\cdot 2$ $\cdot 8$ $\cdot 8$ | $\begin{array}{r}3 \\ 7 \\ \hline\end{array}$ |
| Total Food | - | 1086 | 289 | 48.9 |
| Total Fuel and Lighting | - | 115 | 3.0 | 51 |
| Total Clothing | - | 1116 | 4.7 | 80 |
| House Rent | - | 1610 | $3 \cdot 9$ | 66 |
| Total Honsehold Requisites- | - | 063 | 11 | 18 |
| Liquar | - | 250 | 64 | 10\% |
| Tobacco and betel | - | 130 | $3 \cdot 3$ | $5 \cdot{ }^{\circ}$ |
| Others | - | 2138 | 78 | 13.3 |
| Total Miscellaneous | - | 658 | 17.5 | $29 \cdot 5$ |
| Total Monthly Expenditure- | - | 2183 | 59.1 | 1000 |
| Balance of Income over Expenditure | - | 14142 | 40.9 | - |
| Remittance to dependants - | - | 111110 | 323 | - |

Note -1 viss $=360 \mathrm{lbs}$.
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TABLE XXVI.
Rice Bag Carriers.
(Telugus.)
Number of budgets ... ... 47 Average monthly income $\quad . . . \quad$ :... Rs. 37-1-11.

| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 15.02 | 426 | 11.2 | 209 |
| Arhar ... ... | 1.02 | 061 | 10 | 19 |
| Fish, fresh ... "1 | $\cdot 42$ | 068 | $1 \cdot 1$ | 211 |
| Fish, salted, dry ... ", | $\cdot 37$ | 0810 | $1 \cdot 5$ | 2.8 |
| Mutton ... ... | -29 | 097 | 1.6 | 3.0 |
| Fowls ... ... | . 08 | $0 \begin{array}{lll}0 & 4 & 1\end{array}$ | 7 | 1.3 |
| Salt $\quad . .0$ | '50 | 016 | 3 | 5 |
| Tamarind ... ${ }^{\text {- }}$ | $\cdot 74$ | 044 | 7 | 14 |
| 'Spices and other condiments ... |  | 077 | 13 | 2.4 |
| Pokatoes .... Viss | 87 | 0410 | 8 | $1 \cdot 5$ |
| - Onions | -53 | $\begin{array}{llll}0 & 3 & 2\end{array}$ | 5 | 1.0 |
| Fruit and other vegetables - |  | 0132 | 22 | $4 \cdot 1$ |
| - Sesamum oil | $-35$ | $\begin{array}{cccc}0 & 7 & -7 \\ 0 & 1 & 0\end{array}$ | 13 -2 | $\begin{array}{r}2.4 \\ \hline\end{array}$ |
| Food bought and consumed away from home :Tea +4 Cups Coffee ... " | 28 | $\begin{array}{lll}1 & 5 & 3 \\ 0 & 0 & 8 \\ 0 & 1 & 3\end{array}$ | 36 -1 -2 | $\begin{array}{r}67 \\ \hline 2 \\ \hline\end{array}$ |
| Total Food | - | 1082 | 28.3 | 52:8 |
| Total Fuel and Lighting | - | 0141 | 24 | $4 \cdot 4$ |
| Total Clothing | - | 19.5 | 43 | 8.0 |
| House Rent | - | 01510 | 27 | 50 |
| Total Household Requisites - | - | 092 | 15 | 29 |
| Liquor | - | 1135 | 50 | 92 |
| Tobacco and betel | - | 160 | 37 | 69 |
| Others | - | 225 | $5 \cdot 8$ | 10.8 |
| Total Miscellaneous | - | $5 \quad 510$ | 14.5 | $26 \% 9$ |
| Total Monthly Expenditure - | - | 19146 | 53.6 | 1000 |
| Balance of Income over Expenditure | - | 1735 | $46 \cdot 4$ | - |
| Remitlance to dependants - | - | 1131 | 302 | - |

Nots. -1 viss $=\mathbf{3} 60 \mathrm{lbs}$.

TABLE XXVII.

## Sievedore and Wharf Coolies.

(Telugus.)

| Number of budgets Average monthly income |  | $\begin{aligned} & \text {... } 29 . \\ & \text {... Rs. 32-6-4. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  | 11.55 | $\begin{array}{rrrr}\text { Rs. } & \text { A. } & \text { P. } \\ 3 & 7 & 4\end{array}$ | 107 | 142 |
| $\begin{array}{lll}\text { Rice } \\ \text { Arhar } & \text {... } & \text {... } \\ \end{array}$ | 93 | 0510 | $1 \cdot 1$ | 15 |
| Moong .... | -24 | $\begin{array}{lll}0 & 1 & 6 \\ 0 & 9 & 8\end{array}$ | $\cdot 3$ 1.9 | $\cdot 4$ |
| Fish, fresh \#... | $\checkmark 72$ | $\begin{array}{lll}0 & 9 & 8 \\ 0 & 3 & 8\end{array}$ | 1.9 | $2 \cdot 5$ |
| Fish, salled, dry .... *" | -18 | $\begin{array}{lll}0 & 3 & 8 \\ 1 & 1 & 4\end{array}$ | 77 | 9- |
| Mutton $\quad$ " | -43 | $\begin{array}{llll}1 & 1 & 4 \\ 0 & 7 & 9\end{array}$ | 138 | $4 \cdot 5$ |
| Fowls ... ... " | - 16 | $\begin{array}{llll}0 & 7 & 9 \\ 0 & 1 & 3\end{array}$ | 15 | 2.0 |
| Salt ... ... " | . 50 | $\begin{array}{lll}0 & 1 & 3 \\ 0 & 3 & 9\end{array}$ | $\cdot{ }^{-2}$ | -3-4. |
|  | -46 | $\begin{array}{llll}0 & 3 & 9\end{array}$ | 7 | 10. |
| Spices and other condiments ... |  | $\begin{array}{lll}0 & 6 & 11 \\ 0 & 2 & 10\end{array}$ | $1 \cdot 3$ | 18 |
| $\begin{array}{lll}\text { Potatoes } & \ldots . & \text {... Viss } \\ \text { Onions } & \text {... } & \ldots .\end{array}$ | .57 .75 | $\begin{array}{cccc}0 & 2 & 10 \\ 0 & 3 & 6\end{array}$ | $\begin{array}{r}\text { - } \\ \hline\end{array}$ | 7 9 |
| Fruit and other vegetables - | - | 0143 | $2 \cdot 7$ | $3 \cdot 7$ |
| $\begin{array}{ll}\text { Sesamum oil } \\ \text { Other food } & \ldots\end{array}$ | -29 | $\begin{array}{lll}0 & 7 & 0 \\ 0 & 1 & 5\end{array}$ | 1.4 | $\begin{array}{r}18 \\ \hline 4\end{array}$ |
| Foud bought and consumed away from home:- |  |  |  |  |
| Tea ... Cups <br> Others  | 49 | $\begin{array}{lll}2 & 8 & 10 \\ 1 & 3 & 0\end{array}$ | 8.2 3.7 | $\begin{aligned} & 105 \\ & 49 \end{aligned}$ |
| Total Food | - | 12910 | 38.9 | 51.8 |
| Total Fuel and Lighting | - | 119 | 3.4 | 46 |
| Total Clothing | - | 0152 | 29 | 3.9 |
| House Rent | - | 215 | $6 \cdot 4$ | 8.6 |
| Total Household Requisites - | - | 0410 | 9 | 12 |
| Liquor | - | 3125 | 117 | 155 |
| Tobacco and betel - | - | 151 | 41 | $5 \cdot 4$ |
| Others | - | 229 | 6.7 | 8.9 |
| Total Miscellaneous | - | 743 | 22.4 | 29.9 |
| Total Monthly Expenditure - | - | $24 \quad 54$ | 751 | $100 \%$ |
| Balance of Income over Expenditure. | - | 810 | $24 \cdot 9$ | - |
| Remittance to dependants - | - | 728 | 22.1 | - |

Nore. -1 viss $=3.60 \mathrm{lbs}$

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## TABLE XXVIIL.

Rickskaw Pullers.

## (Telugus.)

| Number of budgets | $\ldots$ | $\ldots$ | 40 |
| :--- | :--- | :--- | :--- |
| Average monthly income | ... | $\ldots$ | Rs. 28-2-4 |


| tem. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Rs. A. P. |  |  |
| Kite ... ... Viss | 12.71 | 3138 | 137 | 178 |
| .Arhar ... ... " | 81 | 0410 | 1.1 | 14 |
| Moong ... ... | 04 | $0 \begin{array}{lll}0 & 0 & 3\end{array}$ | 1 | 1 |
| Fish, fresh... ... | 71 | $0{ }_{0} 94$ | 21 | $2 \cdot 7$ |
| Fish, salted, dry ... | -19 | 0310 | 9 | 11 |
| Mutton ... ... | $\cdot 30$ | 0108 | 24 | $3 \cdot 1$ |
| Fowls ... ... | - 16 | 078 | 17 | 22 |
| Milir, fresh... ... " | 05 | 0005 | $\cdot 1$ | - 1 |
| -Salt $\quad . .0$ | $\cdot 52$ | 0 1 5, | $\cdot 3$ | 4 |
| Tamarind ... $\because \quad$. | -50 | 0311 | 9 | 11 |
| Spices and other condiments ... | - |  | 20 | 2.6 |
| Potatoes ... ... Viss | *33 | 017 | 4 | '5 |
| Onions $\cdots$.. $\ldots$ | -47 | 025 | 3 | 7 |
| Fruit and other vegetables ... ... | '27 | 0 10 5 <br> 0   | 23 1.4 | 30 10 |
| Sesamum oil ... Viss | '27 | 065 | 1.4 | 19 |
| Food bought and consumed away from home :Tea |  | $308$ | 108 |  |
| $\begin{array}{ccc}\text { Tea } & \ldots . \\ \text { Coffee } & \text { Cups } \\ \text { On }\end{array}$ | 50 3 | $\begin{array}{lll}3 & 0 & 8 \\ 0 & 2 & 6\end{array}$ | 108 | 14.7 |
| Others $\quad . .$. | - | 119. | 39 | 51 |
| Total Food | - | 12108 | 450 | 586 |
| Total Fuel and Lighting | - | 109 | 37 | 48 |
| Totat Clothing | - | 01310 | 31 | 40 |
| House Rent | - | 1139 | 66 | 8.6 |
| Total Household Requisites - | - | 056 | $\pm 2$ | 1\% |
| Liquer | - | 2110 | $7: 5$ | 98 |
| Tobacco and betel | - | 140 | 44 | 58 |
| Others | - | 178 | 53 | 68 |
| Total Miscellaneous | - | 4136 | 472 | 22:4 |
| Total Nonthly Expenditure - | - | 21100 | 268 | 1000 |
| Balance of Income over Expenditure ... | - | 684 | 232 | - |
| Remittance to dependants | - | 544 | 187 | - |

Sorim- 1 viss $=3601 \mathrm{ths}$

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TABLE XXIX.

## Corporation Coolies.

(Telugus.)

| Number of badgets Average monthly income |  | ... | $\begin{aligned} & \ldots 30 \\ & \ldots \\ & \text { Rs. 25-10-2 } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure |
|  |  | Rs. A. P. |  |  |
| Rice -2. ... Viss | 13.33 | 31410 | 153 | 200 |
| Arhar ... ... . | 104 | 063 | 1.5 | 20 |
| Fish, fresh ... $n$ | '44 | $0{ }^{4} 11$ | 12 | 16 |
| Fish, salted, dry .... | 62 | 0125 | 30 | 40 |
| Beer .... ... | -13 | 023 | 5 | 7 |
| Mution ... ... | 03 | 0010 | 2 | 3 |
| Fowls ... ... | -20 | 099 | $2 \cdot 4$ | $3 \cdot 1$ |
| Salt ... | .63 | 0111 | 5 | 6 |
| Tamarind ... $\cdots$ | -52 | 042 | 10 | 13 |
| Spices and other condi- ments | - | 062 | 15 | 20 |
| Potatoes ... ... Viss | 24 | 012 | 3 | 4 |
| Onions … $\sim^{*}$ | 71 | 039 | - 9 | 12 |
| Fruit and other vegetables - | $\cdot 33$ | $\begin{array}{llll}0 & 7 & 2\end{array}$ | 17 | $2 \cdot 3$ |
| Sesamum ôl ... Viss | '33 | 0811 | 22 | 28 |
| Food bought and consumed away from home :Tea ... <br> ... Cups | 18 | 01310 | $3 \cdot 4$ | 44 |
| Others | - | $181^{\circ}$ | 59 | 77 |
| Total Food | - | 1010 \% | 415 | 542 |
| Total Fiel and Lighting | - | 1011 | 41 | $5 \cdot 4$ |
| Total Clothing | - | 0127 | 31 | 40 |
| House Rent | - | 1119 | 68 | 8.8 |
| Total Household Requisites | - | 037 | 9 | $1 \cdot 1$ |
| Liquor | - | 1127 | 70 | 9.1 |
| Tobecco and betel | - | 0127 | 311 | 40 |
| Others | - | 2911 | 102 | 13.3 |
| Tatal Miscellanegus | - | 531 | $20: 3$ | 26.4 |
| Totil Monthly Expenditure - | - | 19103 | 766 | 1000 |
| Ealance of Income over Expenditure | - | 51511 | $23 \cdot 4$ | - |
| Remitance to depeadants -- | - | 441 | 166 | - |

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TABLE XXX.
Cargo Boalmen.
(Telugus)


Norem-1 viss $=360 \mathrm{lbs}$

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## TABLE XXXI.

## Paddy Cazriers.

(Telugus.)

| Number of budgets Average monthly income |  |  | $\begin{aligned} & \ldots .46 \\ & \ldots . \text { Rs. 24-14-0 } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Iterm. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 11.74 | 361 | 13.6 | 20.8 |
| Arbar ... ... " | 1.16 | 070 | 1.8 | 27 |
| Fish, fresh ... ." | -59 | 0 \% 6 | 2.4 | 37 |
| Fish, salted, dry ... \# | $\cdot 38$ | 086 | $2 \cdot 1$ | $3 \cdot 3$ |
| Mution ... ... | $\cdot 26$ | 086 | 21 | 3.3 |
| Fowls ... | -09 | $\begin{array}{llll}0 & 4 & 2 \\ 0 & 1 & 6\end{array}$ | 1.0 | 1.6 |
| Salt ${ }^{\text {a }}$ | -50 | 0 | 4 | 6 |
| Tamarind ... | 77 | 049 | 1.2 | 18 |
| Spices and other condi- ments | $\cdot 7$ | $\begin{array}{lll}0 & 7 & 4\end{array}$ | $1 \cdot 8$ | $2 \cdot 8$ |
| Potatoes ... ... Viss | $\cdot 79$ | $\begin{array}{lll}0 & 4 & 4\end{array}$ | 11 | 17 |
| Onions ... ... | '50 | 0211 | 7 | 1.1 |
| Fruit and other vegetables - | - | 0109 | $2 \cdot 7$ | $4 \cdot 1$ |
| Sesamum oil ... Viss | $\cdot 37$ | 082 | 21 | 31 |
| Other food... ... - | - | 041 | 10 | 16 |
| Food bought and consumed away from home :- |  |  |  |  |
| Tea ... ... Cups | 13 | 099 | 24 | 3'8 |
| Total Food- | - | 913 | 36.5 | 55.9 |
| Total Fuel and Lighting | - | 01310 | $3 \cdot 5$ | $5 \cdot 3$ |
| Total Clothing | - | 1. 5. 6 | $5 \cdot 4$ | $8 \cdot 3$ |
| House Rent | - | 0.13 .1 | $3 \cdot 3$ | 50 |
| Fotal Hoasehold Requisites- | - | 0.73 | 18 | 28 |
| Liquor | - | 015.4 | 3.8 | $5 \cdot 9$ |
| Tobacco and betel | - | 108 | 42 | 6.4 |
| Others | - | 11010 | 67 | $10 \cdot 3$ |
| Total Miecellaneous | - | 31010 | $14 \cdot 8$ | 22.6 |
| Total Monthly Expenditure - | - | $16 \quad 3.10$ | $65 \cdot 3$ | 1000 |
| Balance of Income over Expenditure: | $\because$ | 8102 | 347 | - |
| Remittance to dependants - | - | 669 | 25.8 | - |
| Nors.-Liviss $=360$ thas |  |  |  |  |

TABLE XXXII.

## Unskilled Factory Workers. $\dagger$

(Telugus.)

| Number of budgets Average monthly income |  | $\begin{aligned} & \ldots \text { Rs. 20-9-2 } \\ & \ldots \text { Re } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Itern | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 12:39 | 3711 | 17.0 | -213 |
| Arhar ... ... ." | 134 | 082 | 2.6 | 31 |
| Moong ... ... .. | . 08 | $0 \quad 06$ | $\cdot 2$ | 2 |
| Fish, fresh ... . | $\cdot 79$ | 0107 | 3.2 | 40 |
| Fish, salted, dry ... ." | -33 | 077 | $2 \cdot 3$ | 29 |
| Beef ... ... | O1 | 0002 | 1 | $\cdot 1$ |
| Mutton ... ... | 18 |  | 19 | 24 |
| Fowls ... ... | -6 | 029 | -8 | 10 |
| Salt ... ... .. | 59 | 019 | 5 | $\cdot 7$ |
| Tamarind ... ... | . 64 | 048 | 1.4 | 1.8 |
| Spices and other condiments ... | - | 0611 | 21 | 2.6 |
| Potatoes ... ... Viss | $\cdot 54$ | 0211 | 9 | $1 \cdot 1$ |
| Onions $\quad .$. | 81 | 044 | $1 \cdot 3$ | 1.6 |
| Fruit and other vegetables |  | 079 | $2 \cdot 4$ | 29 |
| Sesamum oil ... Viss | $\cdot 34$ | 078 | $2 \cdot 3$ | 29 |
| Food bought and consumed away from home :Tea <br> ... Cups Others | 17 | $\begin{array}{lll}0 & : 2 & 5 \\ 0 & 6 & 2\end{array}$ | $\begin{aligned} & 38 \\ & 19 \end{aligned}$ | $\begin{aligned} & 47 \\ & 23 \end{aligned}$ |
| Total Food | - | 926 | 445 | $55 \cdot 7$ |
| Total Fuel and Liglating | - | 0149 | 45 | 56 |
| Total Clothing ... | - | 103 | 49 | 6.2 |
| House Rent | - | 105 | 50 | 6.2 |
| Total Household Requisites | - | 059 | 17 | 22 |
| Liquor ... | - | 1611 | 7.0 | 87 |
| Tubacco and betel ... - | - | 0156 | 47 | $5 \cdot 9$ |
| Others | - | 1811 | 76 | 9.5 |
| Total Miscellaneous | - | 3154 | 19.2 | 241 |
| Total Monthly Expenditure - | - | 1670 | 79.9 | 1000 |
| Balance of Income over Expenditure | - | 422 | 201 | - |
| Remittance to dependants - | - | 3128 | 18.4 | - |

Nors.-1 viss $=\mathbf{3 6} 60 \mathrm{lbs} . \quad \dagger$ Other than Contract Coolies.

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TABLE XXXIII.

## Skilled Factory Workers.

(Uriyas.)

| Number of budgets Average monthly income |  | $\begin{aligned} & . \quad 28 \\ & . . \\ & \text { Rs. } 39.5-8 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Ilem. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| tice ... ... Viss | 13.16 | 416 | 10.4 | 18.2 |
| rhar ... ... . | 105 | 064 | 10 | $1 \cdot 8$ |
| ugar, refined ... | $\cdot 12$ | 012 | $\cdot 2$ | $\cdot 3$ |
| iur $\quad . .0$... | 11 | 011 | 2 | $\cdot 3$ |
| 'ea .s. ... libs. | . 03 | 005 | $\cdot 1$ | 1 |
| offee ... Ticals | $2 \cdot 30$ | 0 O 11 | $\cdot 1$ | 3 |
| ish, fresh ... ... Viss | 86 | 01311 | $2 \cdot 2$ | $3 \cdot 9$ |
| isl, salked, dry ... " | - 41 | $\begin{array}{lll}0 & 5 & 4\end{array}$ | 8 | $1 * 5$ |
| Iutton ... ... | 50 | 100 | $2 \cdot 5$ | 44 |
| Iilk, fresh ... ... | -47 | $0 \begin{array}{lll}0 & 3 & 3\end{array}$ | 5 | 9 |
| alt ... ... ${ }^{\text {al }}$ | $\cdot 51$ | $0 \begin{array}{llll}0 & 1 & 7\end{array}$ | $\cdot 3$ | 4 |
| amarind ... | $\cdot 49$ | 03 3 | 5 | 9 |
| pices and other condiments | - | 073 | 12 | 2.0 |
| otatoes ... ... Viss | 1.01 | 060 | 10 | 1.7 |
| mions ..F ... | '53 | 037 | 6 | 1.0 |
| ruit and other vegetables ... | -1 | 01111 | 19 | 3-3 |
| Instard oil . ... Viss | . 01 | $\begin{array}{llll}0 & 0 & -4 \\ 0 & 9 & 3\end{array}$ | $1 \cdot 1$ | . 1 |
| esamum oil :"* " |  |  | 15 | 26 |
| ood bought and consumed away from home :- |  |  |  |  |
| Tea.. $\ldots$ Cups <br> Coffee.. $\ldots$  | 10 2 | $\begin{array}{lll}0 & 8 & 5 \\ 0 & 2 & 2\end{array}$ | $1 \cdot 3$ -3 | 2.3 6 |
| Others... | - | 0210 | $\cdot 4$ | 8 |
| otal Food... | - | 10108 | 271 | $47 \cdot 5$ |
| ofal Fuel and Lighting | - | 0157 | $2 \cdot 5$ | 43 |
| 'otal Clothing | - | 1152 | 49 | 87 |
| louse Rent... | - | 1123 | 45 | $7 \cdot 9$ |
| otal Household Requisites - | - | 0810 | 14 | $2 \cdot 5$ |
| iquor <br> obacco and betel | 二 | $\begin{array}{lrr}1 & 4 & 4 \\ 1 & 11 & 5\end{array}$ | 32 4.4 | 57 76 |
| thers | - | 3 O 4 | 91 | 15.9 |
| Cotal Miscellaneous | 一 | 091 | 16.7 | 292 |
| Cotal Monthly Expenditure - | :- | 2277 | $57 \cdot 1$ | 1000 |
| salance of income over Expenditure | - | 16141 | 429 | - |
| zemitlance to dependants - | - | 12146 | 32.8 | - |

Nots. -1 viss $=\mathbf{3 . 6 0} \mathrm{lbs}$ and 1 tical $=\mathbf{0 1}$ viss.

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TABLE XXIV.

## Tramway Workers.

(Uriyas.)

| Number of budgets Ayerage monthly income |  | $\begin{aligned} & \ldots 20 \\ & \ldots \text { Rs. 27-14-4 } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item, | Quantity. | Cost. | Percentages of tntal income. | Percentages of total expenditare. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Visa | 11.88 | 3668 | 12.2 | 18-5 |
| Arbar ... ... | \% 8 | $\begin{array}{lll}0 & 5 & 2\end{array}$ | 12 | 17 |
| Sugar, refined $\quad .$. | $\cdot 12$ | $0{ }_{0}^{0} 12$ | $\cdot 3$ | 4 |
| Tea .as ... lbs, | -14 | $\begin{array}{lrrr}0 & 2 & 8 \\ 0 & 10 & 11\end{array}$ | -6 | 4 |
| Fish, fresh . ... Viss | .69 | $\begin{array}{lrrr}0 & 10 & 11 \\ 0 & 610\end{array}$ | 24 | 37 |
| Ghee ... .... | 22 | 0148 | $3 \cdot 3$ | 50 |
| Salt ... ... | 50 | 013 | 3 | 4 |
| Tamarind an $\because$ | 05 | 006 | $\cdot 1$ | 2 |
| spices and other condi- ments | - | 0111 | 25 | 3.7 |
| Potatoes ... ... Viss | -44 | 032 | -5 | 7 |
| Onions ... | '44 | 0111 | 4 | 6 |
| Fruitand other vegetables -- | - | 146 | 46 | 6.9 |
| $\begin{array}{lll}\text { Sesamum oil } & \text {... } & \text { Viss } \\ \text { Other food... } & \text {... } & \end{array}$ | $\cdot 37$ | $\begin{array}{llll}0 & 8 & 10 \\ 0 & 0 & 4\end{array}$ | $2 \cdot 1$ | 30 1 |
| Food bought and consumed away from home :- <br> Tea ... <br> ... Cups | 20 | 100 | 36 | 54 |
| Others | - | 102 | 36 | $5 \cdot 5$ |
| Total Eood | - | 10148 | 391 | 591 |
| Total Fuel and Lighting | - | 138 | 44. | 67 |
| Total Clothing .. | - | 1110 | 40 | 00 |
| House Rent | - | 1117 | 62 | $9 \cdot 3$ |
| Total Hoasehold Requisites- | - | 0511 | 13 | $2 \%$ |
| Tobacco and betel ... - | - | 181 | 54 | 81 |
| Others ... ... | - | 1910 | $5 \cdot 8$ | 87 |
| Total Miscellaneoos ... | - | 3111 | 112 | 169 |
| Total Monthly Expenditare- | - | 1877 | 66.2 | 1000 |
| Balance of Income over Expenditure | - | 969 | 338 | - |
| Remittance to dependants - | - | 869 | 300 | - |

Nork-1 viss $=360$ libs.

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TABLE XXXV.
Unskilled Factory Workers:
(Uriyas.)

| Number of budgets Average monthly income |  | $\cdots \text {.. } 22$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
| - |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 11.19 | $\begin{array}{llll}3 & 5 & 4\end{array}$ | $14 \cdot 1$ | 217 |
| Arhar ... ...- ${ }^{\text {a }}$ | 105 | 067 | 17 | 27 |
| Moong ... ... | 04 | $\begin{array}{lll}0 & 0 & 4\end{array}$ | 1 | 1 |
| Chana ... ... " | 06 | 0 O 03 | $\checkmark 1$ | -1 |
| Fish, fresh... ... " | $\cdot 55$ | $\begin{array}{llll}0 & 9 & 7\end{array}$ | 2.5 | 39 |
| Fish, salted, dry ... " | -34 | $0 \begin{array}{lll}0 & 5 & 7\end{array}$ | 1.5 | $2 \cdot 3$ |
| Mution ... ... | -30 | $010-4$ | 27 | 42 |
| Fowls ... *** | -02 | 0111 | $\cdot 3$ | 4 |
| Milk, fresh ... ." | 75 | 0661 | 1.6 | 2-5 |
| Ghee ... ... | 08 | 051 | $1 \cdot 3$ | 21 |
| Salt ... ... | . 52 | 0 O 6 | 4 | $6^{\circ}$ |
| Tamarind ... ${ }^{\text {.. }}$ | -44 | 034 | 9 | 14 |
| Spices and other condiments | - | 054 | 14 | $2 \cdot 2$ |
| Potatoes ... ... Viss | -99 | 0211 | '8 | 12 |
| Onions $\ldots$ | $\cdot 50$ | 029 | 7 | 11 |
| Fruit and other vegetables $\frac{1}{}$ | -01 | $\begin{array}{llll}0 & 8 & 1\end{array}$ | 21 | $3 \cdot 3$ |
| Mustard oil | . 01 | $\begin{array}{lll}0 & 0 & 4\end{array}$ | 1 | $\cdot 1$ |
| Sesamum oil $\ldots$... - | $\cdot 28$ | $\begin{array}{rrrr}0 & 7 & 3 \\ 0 & 0 & 11\end{array}$ | 19 -2 | 30 |
| Food bought and consumed away from home :- <br> Tea <br> ... Cups <br> Others <br> ... | 6 | $\begin{array}{lll}0 & 4 & 7 \\ 0 & 3 & 2\end{array}$ | $\begin{array}{r}12 \\ \hline 8\end{array}$ | 19 |
| Total Food | - | 8106 | 367 | 56.4 |
| Total Fuel and Lighting - | - | 0136 | 376 | $5 \cdot 5$ |
| Total 'Clothing | - | 149 | $5 \cdot 5$ | 8.4 |
| House Rent | - | 0145 | $3 \cdot 8$ | 59 |
| Total Household Requisites- | - | 045 | 12 | 18 |
| $\begin{array}{ll}\text { Liquor } \\ \text { Tubacco and betel } & \text {... } \\ \text { - }\end{array}$ | 二 | $\begin{array}{lll}0 & 8 & 4 \\ 1 & 2 & 3\end{array}$ | 22 48 | $3 \cdot 4$ $7 \cdot 4$ |
| Others | - | 1116 | $7 \cdot 3$ | 11.2 |
| Total Miscellaneous | - | 361 | 14.3 | 22.0 |
| Total Monthly Expenditure- | - | 15 5 8 | 651 | $100 \%$ |
| Balance of Income over Expenditure. | - | $8 \quad 37$ | 34.9 | - |
| Remittance to dependants - | - | 5135 | 248 | - |

NoTt, -1 vies $=960 \mathrm{Jbs}$.

TABLE XXXVI
Durwans and Peons.
(Hindustanis.)

| Number of bendgets Average monthly income |  | $\begin{aligned} & \ldots \quad 47 \\ & \ldots \text { Rs. 25-0.8. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice - ... ... Viss | 473 | 182 | 6.0 | 98 |
| Wheat flour | 820 | 352 | $13 \cdot 3$ | 21.7 |
| Arhar ... ... | $2 \cdot 17$ | 106 | 41 | 6.7 |
| Urad ... ... " | $\cdot 22$ | 0 1 5 | 4 | 6 |
| Moong ... ... | -12 | 012 | $\cdot 3$ | 5 |
| Musur ... ... | $\cdot 02$ | 002 |  | 1 |
| Chana ... ... | 15 | 009 | -2 | 3 |
| Sugar, refined ... ., | . 04 | 004 | $\cdot 1$ | 1 |
| Tea ... ... lbs. | -01 | 0001 |  |  |
| Fish, fresh ... Viss | -07 | $\begin{array}{lll}0 & 1 & 8\end{array}$ | $\cdot 4$ | $\cdot 7$ |
| Beef ... ... | -02 | 0 O 0 | 1 | 2 |
| Fowls ... | 01 | 003 | 1 | 1 |
| Milk, fresh ... ". | -46 | 0.54 | 1.3 | 22 |
| Ghee ... ... ", | -25 | 1011 | 42 | 69 |
| Salt ... .... ", | -46 | 014 | $\cdot 3$ | $\cdot 5$ |
| Spices and other condiments ... |  | 043 | 11 | 17 |
| Potaloes ... ... Viss | 1.44 | 0510 | 15 | 24 |
| Onions ... ... $\quad$ | $\cdot 21$ | 0011 | $\cdot 2$ | . 4 |
| Fruit and other vegetables - | - | 069 | $1 \cdot 7$ | 27 |
| Mustard oil | $\cdot 16$ | 043 | $1 \cdot 1$ | 17 |
| Food bought and consumed away from home:Others | - | 036 | 9 | 14 |
| Total Food | - | 950 | 372 | 607 |
| Total Fuel and Lighting | - | 0149 | 37 | 60 |
| Total Clothing | - | 189 | 63 | 101 |
| House Rent | - | 188 | 61 | 99 |
| Total Household Requisites - | - | 065 | 16 | 26 |
| Tobacco and betel | - | $\begin{array}{llll}0 & 8 & 8\end{array}$ | 22 | 3.5 |
| Others | - | 118 | 44 | $7 \cdot 2$ |
| Total Miscellaneous | - | 1104 | 66 | 107 |
| Total Monthly Expenditure - | - | 1556 | 61.3 | 1000 |
| Balance of Income over Expenditure | - | 9112 | 387 | - |
| Remittance to dependants - | - | 712 | 28.2 | 一 |

Noxe- 1 viss $=3.60 \mathrm{lbs}$

TABLE XXXVII.

## Gharrywallas.

## (Hindustanis.)

| Number of budgets <br> Average monthly income |  | $\begin{aligned} & \therefore \text {. } 48 \\ & \ldots \text { Rs. 24-15-8 } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 10.04 | 332 | 12.6 | 21.8 |
| Wheat flour | $2 \cdot 05$ | 0138 | $3 \cdot 4$ | 59 |
| Arhar | -58 | 044 | 11 | 19 |
| Urad | 02 | 002 |  | -1 |
| Moong | 04 | 005 | $\cdot 1$ | 2 |
| Musur | . 51 | 030 | 8 | $1 \cdot 3$ |
| Chana | 45 | 024 | 6 | 10 |
| Sugar, refined ... | . 03 | 003 | '1 | '1 |
| Gur ... ... | 11 | 011 | $\cdot 3$ | -5 |
| Fish, fresh ... ... | 41 | 088 | $2 \cdot 1$ | 37 |
| Beef ... | . 06 | 0 112 | 3 | $\cdot 5$ |
| Mutton ... ... ." | -10 | 0310 | 1.0 | 17 |
| Milk, fresh ... .. | . 07 | 0010 | $\cdot 2$ | '4 |
| Ghee ... ... . | 18 | 0119 | 29 | 51 |
| Sall ... ... ., | -52 | 015 | * 4 | $\cdot 6$ |
| Spices and other condiments ... |  | 0 54 | 13 | $2 \cdot 3$ |
| Potatoes ... ... Viss | 108 | 056 | 14 | $2 \cdot 4$ |
| Onions ... ..." | -50 | 029 | 7 | 12 |
| Fruit and other vegetables - | - | 043 | 11 | 18 |
| Mustard oil ... Viss | '20 | 0410 | $1-2$ | 21 |
| Foud bought and consumed away from home :Tea <br> ... Cups Others | 8 | $\begin{array}{lll}0 & 7 & 7 \\ 0 & 0 & 9\end{array}$ | $\begin{array}{r}19 \\ \hline\end{array}$ | 3.3 3 |
| Total Food | - | 8511 | 33.5 | 581. |
| Total Fuel and Lighting | - | 0115 | 29 | 50 |
| Total Clothing | - | 121 | 45 | 79 |
| House Rent | - | 1130 | $7 \cdot 3$ | 12.6 |
| Total Household Requisites- | - | 086 | $2 \cdot 1$ | 37 |
| Tobacco and betel | - | 0109 | 27 | 47 |
| Others | - | 128 | 47. | 811 |
| Total Miscellaneous | - | 1135 | 74 | 12.8 |
| Total Monthly Expenditure- | - | 1464 | $57 \%$ | 1000 |
| Balance of Income over Expenditure | ${ }^{-}$ | 1094 | $42 \cdot 4$ | - |
| Remittance to dependants - | - | 900 | 36\% | - |

Note, -1 viss $=\mathbf{3} 60 \mathrm{lbs}$.

TABLE XXXVIII.
Unskilled Factory Workers. $\dagger$
(Hindustanis.)


TABLE XXXIX.
Tindals.
(Chittagonians.)

| Number of budgets Average monthly income |  | $\begin{aligned} & \text {... 41. } \\ & \ldots . \\ & \text { Rs. 45-10-2. } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | $\begin{aligned} & \text { Percentages } \\ & \text { of total } \\ & \text { expenditure. } \end{aligned}$ |
|  |  | Ros A P |  |  |
| Rice ... ... Viss | 1102 | 3004 | 6.6 | 13.8 |
| Arhar ... | $\cdot 28$ | 021 | $\cdot 3$ | 6 |
| Urad ... | 52 | 033 | $\cdot 4$ | 9 |
| Moong ... ... | -6 | 045 | 6 | $1 \cdot 3$ |
| Fish, fresh $\quad$.. | 132 | 1911 | $3 \cdot 5$ | $7 \cdot 4$ |
| Fish, salted, dry ... " | - 25 | 083 | 11 | $2 \cdot 4$ |
| Beef ... | 22 | 044 | 6 | 12 |
| Mutton | 02 | 007 | 1 | $-2$ |
| Fowls ... ... | -26 | 0114 | 1.8 | 32 |
| Milik, fresh ... , | -37 | 0311 | -5 | 11 |
| Salt ... ... | -51 | 017 | 2 | $\cdot 5$ |
| Spices and other condiments - | - | 070 | 10 | 20 |
| Potatoes ... ... Viss | 117 | 058 | 8 | 1.6 |
| Onions $\ldots$.. $\cdots$ | 46 | 024 | $\cdot 3$ | 7 |
| Fruit and other vegetables - | - | 049 | $\cdot 7$ | 1.4 |
| Mustard oil ... Viss | $\cdot 27$ | 072 | 10 | 20 |
| Other food | - | -0 0.8 | $\cdot 1$ | 2 |
| Food bought and consumed away from home :- |  |  |  |  |
| Tea ... Cups | 47 | 290 | 56 | 11.7 |
| Others | - | 0155 | 21 | $4 \cdot 4$ |
| Total Food | - | 12511 | 271 | $50 \cdot 5$ |
| Total Fuel and Lighting | - | 01311 | 19 | 40 |
| Total Clothing ... | - | 244 | 50 | 104 |
| House Rent | - | 11010 | 37 | 77 |
| Total Household Requisites - | - | 083 | 11 | $2 \cdot 4$ |
| Tobacco and betel | - | 1811 | 3.4 | $7 \cdot 1$ |
| Others | - | 2106 | 5.8 | 12.1 |
| Total Miscellaneous | - | 4335 | 9.2 | 19.2 |
| Total Monthly Expenditure - | - | 21147 | 48.0 | $100 \%$ |
| Balance of Income over Expenditure | - | 23117 | 52.0 | - |
| Remittance to dependants - | - | 16153 | 371 | 一 |

Nores- -1 viss $=\mathbf{3 6 0} \mathrm{lbs}$.
( 170 )
TABLE XL.
Firemen.

## (Chittagonians.)

| Number of budgets Average monthly income |  | $\begin{aligned} & \ldots 4^{41} \\ & \ldots \text { Rs. 28-14-11 } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure. |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 10.63 | 304 | 104 | $17 \cdot 5$ |
| Arhar ... ... , | $\cdot 23$ | 019 | '4 | 6 |
| Urad ... ... ." | 44 |  | 6 | 10 |
| Moong ... ... " | $\cdot 62$ | 051 | 11 | 18 |
| Musur ... ... ", | $\cdot 13$ | 010 | $\cdot 2$ | $\cdot 4$ |
| Chana ... ... ., | $\cdot 20$ | 010 | $\cdot 2$ | 4 |
| Fish, fresh... ... .* | 146 | 1120 | 6.0 | 102 |
| Fish, salted, dry ... " | $\cdot 21$ | 0610 | 1.5 | 2.5 |
| Beef ... ... ." | -18 | 039 | '8 | 1.4 |
| Fowls ... ... ", | -09 | 043 | 9 | 1.5 |
| Salt $\quad .$. | $\cdot 52$ | 016 | $\cdot 3$ | 5 |
| Spices and other condiments- | - | 068 | 1.4 | $2 \cdot 4$ |
| Potatoes ... ... Viss | 128 | 056 | 12 | 20 |
| Onions ... ... ${ }^{\text {a }}$ | 40 | 0111 | - 4 | 7 |
| Fruit and other vegetables - - | **27 | $\begin{array}{llll}0 & 4 & 10 \\ 0 & 6 & 11\end{array}$ | 10 | 1.8 |
| Mustard oil $\quad .$. Viss | $\cdot 27$ | 0611 | $1 \cdot 5$ | 2.5 |
| Food bought and consumed away from home :- <br> Tea <br> ... <br> ... Cups | 27 | 189 | $5 \cdot 3$ | 90 |
| Others | - | 087 | 19 | 31 |
| Total Food... | - | $\begin{array}{lll}10 & 3 & 3\end{array}$ | $35 \cdot 3$ | 59.2 |
| Total Fuel and Lighting | - | 01310 | 30 | 50 |
| Total clothing | - | 1131 | $6 \cdot 3$ | 105 |
| House Rent | - | $1 \begin{array}{lll}1 & 5 & 9\end{array}$ | 47 | 79 |
| Total Household Requisites - | - | 0511 | $1 \cdot 3$ | 21 |
| Tobacco and betel | - | 105 | $3 \cdot 5$ | 60 |
| Others .. | - | 197 | $5 \cdot 5$ | 93 |
| Total Miscellaneous | - - | 2100 | 91 | $15 \cdot 2$ |
| Total Monthly Expenditure - | - | $17 \quad 39$ | 59\% | . 1000 |
| Balance of Income over Expenditure. | - | 11112 | $40 \cdot 4$ | - |
| Remittance to dependants - | - | 870 | 292 | - |

[^39]TABLE XLI.
Oilmen.
(Chittagonians.)

| Namber of budgets ... Average monthly income |  | $\begin{aligned} & 44 \\ & \ldots \times \text { Rs. } 26-3-10 \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Item. | Quantity. | Cost. | Percentages of total income. | Percentages of total expenditure |
|  |  | Rs. A. P. |  |  |
| Rice ... ... Viss | 10.85 | $3 \begin{array}{lll}3 & 1 & 7\end{array}$ | 11.8 | 183 |
| Arhar ... ... | -24 | 0 O 119 |  | 6 |
| Urad ... *** | -35 | 021 | 5 | . 8 |
| Moong ... .i. | $\cdot 73$ | 060 | 1.4 | 22 |
| Musur ... ... . | 03 | 003 | 1 | 1 |
| Chana ... ...* | '18 | 0010 | 2 | 3 |
| Fish, fresh... *** | 124 | 176 | 56 | 8.7 |
| Fish, salted, dry ... * | 23 | 077 | 18 | $2 \cdot 8$ |
| Beef ... ... | -23 | 050 | 12 | 1.8 |
| Fowls ... ... " | -11 | 047 | 11 | 1.7 |
| Salt $\quad \cdots \quad \cdots \quad \cdots \quad "$ | -53 | 017 | ${ }^{1} 4$ | $\cdot 6$ |
| Spices and other condiments-- | , | 068 | 16 | $2 \cdot 5$ |
| Potatoes ... ... Viss | 114 | 0 | 1.3 | 20 |
| Onions ... $\quad \cdots$ | -42 | 0211 | $\cdot 5$ | 8 |
| Fruit and other segetables - |  | 0661 | 1.4 | $2 \cdot 3$ |
| $\begin{array}{ll}\text { Mustard oil } & \text {... Viss } \\ \text { Other food } & \text {... }\end{array}$ | $\cdots 31$ | $\begin{array}{lll}0 & 8 & 0 \\ 0 & 0 & 5\end{array}$ | 19 | $3 \cdot 0$ -2 |
| Food bought and consumed away from home :Tea Others <br> ... Cup6 | 25 | $\begin{array}{llll}1 & 7 & 11 \\ 0 & 6 & 2\end{array}$ | $\begin{aligned} & 57 \\ & 15 \end{aligned}$ | $\begin{aligned} & 8.8 \\ & 2.3 \end{aligned}$ |
| Total Food | - | 1015 | 38.4 | 59.7 |
| Total Fuel and Lighting | - | 0141 | 3.4 | $5 \cdot 2$ |
| Total Clothing . . - | - | 1100 | 62 | 96 |
| House Rent | - | 147 | 49 | 76 |
| Tutal Household Requisites - | - | 0511 | 1.4 | $2 \cdot 2$ |
| Tobacco and betel | - | 01511 | 3.8 | 59 |
| Others | - | 1106 | 63 | 978 |
| Total Miscellaneous | - | 2105 | 101 | 15.7 |
| Total Monthly Expenditure - | - | 16144 | 64.4 | 1000 |
| Balance of Income over Expenditure. | - | 956 | 356 | - |
| Remittance to dependants - | - | 6144 | $26 \cdot 3$ | - |

NOTE- -1 viss $=\mathbf{3 . 6 0} \mathrm{lbs}$.

STATISTICAL TABLES.
E.-Cost of Living.
( 174 )
TABLE XLII.
Cost of Living Index for the Working Classes in Rangoon.

## A.-Burmese.



Notz- 1 Pyi $=\mathbf{4 . 5 0}$ Ihs, and 1 viss $=\mathbf{3 . 6 0}$ lbs.
( 175 ).
TABLE XLII-contd.

## Cost of Living Index for the Working Classes in Rangoon.

A.-Burmese-concld.

| Articles. | $\left\|\begin{array}{c} \text { Unit } \\ \text { of } \\ \text { quan- } \\ \text { tity. } \end{array}\right\|$ | Weight. | Price per Unit of quantity |  |  | Price $\times$ Weight |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1913. | February 1928. | $\left\|\begin{array}{c} \text { March } \\ 1928 . \end{array}\right\|$ | 1913. | Feb- $1928 .$ | $\begin{aligned} & \text { March } \\ & 1928 . \end{aligned}$ |
| Clothing and Howschold RequisitesSilt, Mandalay | yard | -50 | $3 \times 500$ | 5-250 | 5250 | 1750 | 2.625 | 2.625 |
| Woven Sarong, Dutch (Elephant brand) | " | 2.00 | 438 | 813 | 813 | '876 | 1626 | 1.626 |
| Longcloth (Swadeshi Mill) | * | $2 \cdot 30$ | $\cdot 219$ | $\cdot 375$ | $\cdot 375$ | :548 | '938 | *338 |
| White Twill (Smate brand) | " | 150 | -281 | -375 | '375 | 422 | $\cdot 563$ | -563 |
| Lawn (Sin-ni brand) ... | ** | $1 \cdot 50$ | -318 | 625 | 625 | -477 | 938 | 938 |
| Total-Clothing and Household Requisites Index Numbers-Clothing and Household Requisites | * | $\cdots$ <br>  <br>  <br>  | ... $\ldots$ | $\cdots$ $\ldots$ | .. $\ldots$ | 4073 100 | 6690 164 | 6690 164 |
| Rent Index Numbers-Rent... |  | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 5000 100 | $\begin{array}{r} 7500 \\ 150 \end{array}$ | $\begin{array}{r} 7500 \\ 150 \end{array}$ |
| Fuel and Lighting- <br> Firewond (Nebe, Didu, etc.) $\qquad$ <br> Kerosene (Victoria) | $\begin{gathered} 100 \\ \text { pieces } \\ \text { bottle. } \end{gathered}$ | $\begin{array}{r} 08 \\ 5.00 \end{array}$ | $\left\|\begin{array}{r} 15000 \\ 111 \end{array}\right\|$ | $\begin{array}{r} 20000 \\ \cdot 193 \end{array}$ | $\begin{array}{r} 20.000 \\ 193 \end{array}$ | $\begin{array}{r} 1.200 \\ .555 \end{array}$ | $\begin{array}{r} 1600 \\ 965 \end{array}$ | 1600 .965 |
| Total-Fuel and Lighting |  | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | 1755 | $2 \cdot 565$ | $2 \cdot 565$ |
| $\begin{aligned} & \text { Index Numbers-Fuel } \\ & \text { and Lixhting } \end{aligned}$ |  | $\cdots$ | ... | ** | ... | 100 | 146 | 146 |
| Miscellaneous- <br> Soap lwhite dhobi scap <br> No. 11 <br> ... <br> ... <br> Cheroots <br> $\Rightarrow$ 할하 | calre $100$ | $\begin{array}{r} 1200 \\ 200 \end{array}$ | $\begin{array}{r} 070 \\ 1-500 \end{array}$ | $\begin{gathered} 094 \\ 1.500 \end{gathered}$ | $\begin{gathered} 094 \\ 1.500 \end{gathered}$ | 840 3.000 | 1128 3.000 | 1128 3000 |
| Total-Niscellaneous ... |  | ... | ..* | ... | $\cdots$ | $3 \cdot 840$ | 4128 | 4.128 |
| Inder Numbers-Miscellancotis ... |  |  | $\cdots$ | $\cdots$ | $\ldots$ | 100 | 107 | 107 |
| Grand Total |  | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $35 \cdot 935$ | 46.788 | 48.033 |
| Cost of Living Index Numbers |  | $\cdots$ | ... | $\cdots$ | ... | 100 | 130 | 134 |

TABLE XLII—contd.

## B.-Tamils, Telugus and Uriyas.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Articles.} \& \multirow[b]{2}{*}{Unit of quan4ty} \& \multirow{2}{*}{Weight.} \& \multicolumn{3}{|l|}{Price per Unit of quantity} \& \multicolumn{3}{|l|}{Pricex Weight} \\
\hline \& \& \& 1913. \& \[
\begin{gathered}
\text { Feb- } \\
\text { ruary } \\
1928 .
\end{gathered}
\] \& \[
\begin{gathered}
\text { March } \\
1928 .
\end{gathered}
\] \& 1913. \& Feb uary 1928. \& \[
\begin{array}{|c}
\text { March } \\
1928 .
\end{array}
\] \\
\hline \begin{tabular}{l}
Cereals- \\
Rice-Ngasein, 2ndiquality \\
Index Numbers-Cercals
\end{tabular} \& .viss \& \[
\begin{gathered}
1200 \\
\ldots
\end{gathered}
\] \& '221 \& '313

.$\cdots$ \&  \& \[
$$
\begin{array}{r}
2.652 \\
100
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
3.756 \\
141
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
3936 \\
148
\end{array}
$$
\] <br>

\hline | $\substack{\text { Puises- } \\ \text { Arhar }}$ |  |
| :--- | :--- | :--- |
| Indes | Nugnbars-Pulses | \& \& 100

$\cdots$

$\cdots$ \&  \& \& \& $$
\begin{aligned}
& 281 \\
& 100
\end{aligned}
$$ \& 500

178 \& 500
178 <br>

\hline | Other Food Articles- |
| :--- |
| Sugar Java white) |
| Tea [Lipton, red labell |
| Fish, fresh fordinary) ... | \& | viss |
| :--- |
| lb. |
| viss | \& \[

$$
\begin{aligned}
& \cdot 25 \\
& \cdot 20 \\
& 75
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
7344 \\
750 \\
1.000
\end{array}
$$

\] \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r}
\cdot 500 \\
1.375 \\
1.000 \\
1.083
\end{array}
$$
\]} \& \multirow[t]{2}{*}{500

1375
1.063
1250

2.500} \& $$
\begin{aligned}
& \hline 086 \\
& 150 \\
& 750
\end{aligned}
$$ \& \multirow[t]{2}{*}{\[

$$
\begin{array}{r|}
\hline 125 \\
\cdot 275 \\
750 \\
\\
\hline 350 \\
1.250
\end{array}
$$

\]} \& \[

$$
\begin{aligned}
& -125 \\
& -275 \\
& -797
\end{aligned}
$$
\] <br>

\hline | Fish salted, dry (Bombay Kathabongi |
| :--- |
| Mfution, goak | \& ** \& -33

-50 \& 750
1250 \& \& \& $\cdot 247$

$\cdot 625$ \& \& |  |
| ---: |
| 413 |
| 1250 | <br>

\hline Milk, condensed (Cow's. head) \& \multirow[t]{2}{*}{in viss} \& 1.50 \& -203 \& -260 \& 250 \& '304 \& -399 \& 37 <br>
\hline Salt (Liverpool) - ... \& \& 50 \& 125 \& '188 \& '188 \& 063 \& 094 \& 0 <br>
\hline Tamarind \& * \& 50 \& 344 \& 500 \& 438 \& '172 \& $\cdot 250$ \& '21 <br>
\hline Chillies (Paleiv) ... \& ${ }^{\prime \prime}$ \& -50 \& 656 \& 1125 \& 1-125 \& -328 \& 563 \& -563 <br>
\hline Potatoes \& $\cdots$ \& -50 \& '250 \& -250 \& 250 \& -125 \& 125 \& 125 <br>
\hline Onions ... \& * \& -50 \& 250 \& $\cdot 297$ \& - 276 \& -125 \& -149 \& 138 <br>
\hline Sesamam oil \& \& -33 \& 1.250 \& 1250 \& 1250 \& 413 \& 413 \& 413 <br>
\hline Total-Other foad articies; \& ... \& -.. \& ... \& $\cdots$ \& $\cdots$ \& 3-388 \& 4743 \& 4787 <br>
\hline Index Numbers-Other food arfictes ... \& ..* \& \& ... \& *. \& \& 100 \& 140 \& 141 <br>
\hline Total-All food articles ... \& ... \& $\ldots$ \& ... \& $\cdots$ \& ... \& 6.321 \& 8999 \& 9-223 <br>
\hline Index Numbers-All. food articles ... \& .,* \& \& ... \& \& ... \& 100 \& 142 \& 16\% <br>
\hline
\end{tabular}

Nors.-1 viss $=360 \mathrm{lbs}$.

TABLE XLII-condd.

## B.-Tamils, Telugus and Uriyas-contd.

| Articles. | $\begin{gathered} \text { UnNt } \\ \text { of } \\ \text { quant } \\ \text { bity. } \end{gathered}$ | \| wei-gbt. | Price per Unit of quantity |  |  | Price $\times$ Weight |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1913. | $\begin{aligned} & \text { Feb } \\ & \text { ruary } \\ & \text { 1928. } \end{aligned}$ | $\begin{gathered} \text { March } \\ \text { 1928. } \end{gathered}$ | 1913. | Febuary 1928. | $\begin{aligned} & \mathrm{March} \\ & 1928 . \end{aligned}$ |
| Clotiting and Household Requisites- |  |  |  |  |  |  |  |  |
| Grey Shirting (Bombay |  |  |  |  |  |  |  |  |
|  |  |  |  | , |  |  | 62 | 625 |
| Total-Clothing and House- |  |  |  |  |  |  |  |  |
| Indoa Numbers-Clothing |  |  |  |  |  |  |  |  |
| and Honsehold Requisites | ... | .. |  | ... | ... | 100 | 140 | 140 a |
| Rent ... ... | $\cdots$ | $\cdots$ | ... | ... | $\cdots$ | 1000 | 1800 | 1880 |
| Index Numbers-Rent | $\ldots$ | ... | ... | $\cdots$ | ... | 100 | 180 | 180 |
| Fuel and LightizgFirewood (Nebe, Didu, |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Kerorene (Victoria) ... | bottle | 00 |  |  | 33 |  | 193 | 193 |
| Total-Frel, and Eightiget |  |  |  |  |  |  |  |  |
| medex Anmbers-Fuel and | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 711 | 993 | 993 |
| Lighing ... ... | $\ldots$ | ... | $\ldots$ | $\ldots$ | $\ldots$ | 100 | 140 | 140 |
| WiscellaneousSoap. (forite cthobl soap |  |  |  |  |  |  |  |  |
| Chereots ... | 100 | 1.00 | $1.500$ |  | 1.500 | 1.500 |  |  |
| Toddy |  |  |  |  |  |  |  |  |
| Hiawaye (peye) ... | " | 500 | 188 | 188 | 188 | 1.504 | 1.50 | 1.504 |
| Total-miscellaneous ... | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | 3.636 | 3849 | 3649 |
| Leder Numbersmeniscel |  |  |  |  |  |  |  |  |
| Grand Total |  | $\cdots$ |  |  |  | 12.483 | 16.783 | 17.007 |
| Cost of Living Index Numbers. | .. |  |  |  |  | 100 |  | -136 |

TABLE XLII-contd.
C.-Hindustanis.

| Articles. | Unit of quan6ty. | Weight. | Price per Unit of quantity |  |  | Price $\times$ Weight |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1913. | February 1928. | $\left\|\begin{array}{c} \text { March } \\ 1928 . \end{array}\right\|$ | 1913. | $\begin{aligned} & \text { Feb- } \\ & \text { ruary } \\ & 1928 \end{aligned}$ | March |
| Cereals- |  |  |  |  |  |  |  |  |
| Rice-Xamakyi, 2nd quality | viss | 5.00 | -228 | $\cdot 313$ | -344 | 1140 | $1 \cdot 565$ | 1720 |
| Rice-Sabanet, znd quality | * | 250 | '248 | -344 | 375 | 620 | 60 | 938 |
| Wheat flour (Rangoon | $\cdots$ |  | '250 | -375 | $\cdot 375$ | 1125 | 1688 | 1688 |
|  |  |  |  |  |  |  |  |  |
| Total-Cereals ... | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | ** | 5 | 4113 |  |
| Index Numbers-Cereals | ** | .** | $\ldots$ | $\ldots$ | $\cdots$ | 100 | 42 | 51 |
| Pulses- |  |  |  |  |  |  |  |  |
| Arhaf (Cawnpore, second sort | viss | 2.50 | '281 | - 500 | '500 | 703 | 1-250 | 1.250 |
| Indes Numbers-Pulses | $\ldots$ | ... | $\cdots$ | $\cdots$ | $\cdots$ | 100 | 178 | 178 |
| Other Food Articles- |  |  |  |  |  |  |  |  |
| Fish, fresh (ordinary) ... | viss | 25 | 1000 | 1000 | 1063 | 250 | 50 | $\cdot 266$ |
| Milk, fresh ... ... | " | 50 | 500 | 750 | 750 | 250 | 75 | '375 |
| Ghee (Patiram) ... | n | 30 | 2375 | 4250 | 4250 | 学13 | 1.375 | 1.275 |
| Salt (Liverpool) ... | " | 50 | 25 | 188 | -188 | 063 | 094 | 094 |
| Chillies (Paleik) ... | n | 35 | 656 | 1125 | $1 \cdot 125$ | 16 | 281 | 281 |
| Potatoes ... | * | 5 | 0 | O | 250 | 313 | -313 | -313 |
| Onions ... | " | 5 | '250 | '297 | 276 | 063 | 074 | 069 |
| Mustard oil | " | 17 | 1250 | 1425 | 1625 | 213 | 276 | '276 |
| Total-Other food arti- |  |  |  | - |  |  |  |  |
| clea | *** | $\ldots$ | ... | $\cdots$ | ** | $2 \cdot 02$ | 293 | 2940 |
| food articles ... | ** | ** | ... | $\ldots$ | $\ldots$ | 100 | 145 | 145 |
| Total-All food articles |  | $\cdots$ |  | ** | $\ldots$ | $5 \cdot 617$ | $8 \cdot 301$ | $8 \cdot 545$ |
| Itrdex Numbers-All food articles ... | ... | $\cdots$ | .. | ** | $\cdots$ | 100 | 148 | 152 |

TABLE XLII-cond.

| Articles | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { quan- } \\ \text { tity. } \end{gathered}$ | Weight. | Price per Unit of quantity |  |  | Price $\times$ Weight, |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1913. | $\begin{gathered} \text { Feb- } \\ \text { reary } \\ 1928 . \end{gathered}$ | $\left\|\begin{array}{c} \text { March } \\ 1008 \end{array}\right\|$ | 1913. | February 1928 | $\begin{gathered} \text { March } \\ 1928 \end{gathered}$ |
|  | yard | $\begin{array}{r} 2 \cdot 50 \\ -50 \\ -50 \end{array}$ | $\begin{aligned} & \cdot 188 \\ & \cdot 219 \\ & \cdot 313 \end{aligned}$ | $\begin{aligned} & -250 \\ & -375 \\ & -438 \end{aligned}$ | $\begin{aligned} & -250 \\ & >375 \\ & -438 \end{aligned}$ | $\begin{gathered} : 470 \\ 110 \\ 157 \end{gathered}$ | $\begin{aligned} & \cdot 625 \\ & \cdot 188 \\ & \cdot 219 \end{aligned}$ | $\begin{aligned} & 625 \\ & -188 \\ & -219 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 737 | 1032 | 1.032 |
|  | ... | $\ldots$ | $\ldots$ | $\ldots$ | ... | 100 | 140 | 140 |
| Rent ... ... | ... | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1000 | 1.800 | 1.800 |
| Index Numbers-Rent ... | ... | ... | $\ldots$ | $\ldots$ | $\ldots$ | 100 | 180 | 180 |
| Fuel and Lightins- |  |  |  |  |  |  |  |  |
| $\begin{array}{lll}\text { Firewood } \\ \text { etc. } & \text { Nebe, Didu, } \\ & \ldots & \ldots\end{array}$ | 100 | 04 | 15000 | 20.000 | 20.000 |  | 800 | 800 |
| Kerosene (Victoria) ... | bottle | 100 | 111 | 19 | 193 | 111 | '193 | 193 |
| Total-Fuel and Lighting | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... | 11 | 993 | 993 |
| and Lighting ... | $\ldots$ | ... | ... | ... | ... | 100 | 140 | 140 |
| Miscellancous- <br> Scap (white dhobi soap <br> No. 1) <br> ** | cake | 400 | \% 0 | -094 | 094 | 880 | -376 | 376 |
| eroots ... | 100 | 50 |  | 1.500 |  | 750 | 50 | 750 |
| Total-Miscellaneous ... | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1030 | 1126 | 1126 |
| 1ndex Numbers-Miscel- <br> baneoss <br> ... <br> -a* | $\ldots$ |  |  |  |  | 100 | 109 | 109 |
| Grand Total | $\ldots$ | "* | ... | $\cdots$ | ... | $9 \cdot 005$ | 13.252 | $13 \cdot 496$ |
| Cost of Living Index <br> Numbers | $\ldots$ |  | … | ... | $\cdots$ | 100 | 148 | 148 |

TABEE XLII-conda,
D.-Chittagonians.


## ( 181 )

TABLE XLNI-Eoncld.

## D.-Chittagonians-contd.

| Articies. | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { quas- } \\ \text { tity. } \end{gathered}$ | Wetght. | Prieeper-wnit-ef quantity |  |  | Price $\times$ Weight |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{array}{\|c\|} \text { Marcti } \\ 1928 . \end{array}$ | 1913. | $\left\lvert\, \begin{gathered} \text { Febru- } \\ 2 r y \\ 1928 \end{gathered}\right.$ | $\begin{aligned} & \text { March } \\ & 1928 . \end{aligned}$ |
| Clothing awd Howsehold Requisites-concld. <br> Longcloth Swadesbi Mill $\qquad$ | yard | 50 | $\cdot 219$ | $\cdot 375$ | $\cdot 375$ | 110 | 188 | 188 |
| Khaki Twill brand).. Snake ... | " | '50 | $\cdot 313$ | 438 | 438 | '157 | 219 | '219 |
| Total-Ctothing and Household Requisites | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | -893 | 1470 | 1'470 |
| Index Numbers-Clothing and Houschold Requisites | $\ldots$ | ... | ... | $\cdots$ | *- | 100 | 865 | 165 |
| Rent ... | ... | $\ldots$ | $\cdots$ | $\cdots$ | ... | 1000 | 1-800 | 1800. |
| Index Numbers-Rent | $\ldots$ | $\cdots$ | ... | $\ldots$ | .** | 100 | 180 | 180 |
| Fuel and LightingFirewood (Nebe, Didu, etc.) | 100 | ${ }^{\circ} 03$ | 15000 | 20000 | 20.000 | 450 | 600 | 600 |
| Kerosene (Victoria) ... | botlle | 1.00 | 111 | . 193 | 193 | $\cdot 111$ | 193 | 193 |
| Total-Fuel and Lighting | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | -561 | 793 | 793 |
| Index Numbers-Fwel and Lishtivg ... | $\ldots$ | *.. | $\ldots$ | ** | ... | 100 | 142 | 142 |
| Misceilaneons- <br> Soap twhite dhobi soap <br> Na. 1) <br> ... <br> ... | cake | 400 | '070 | 094 | '094 | 280 | '376 | -376 |
| Cheroots ... | 100 | 1.00 | $1 \cdot 500$ | 1500 | 1.500 | 1.500 | 1.500 | 1500 |
| Total-Miscellaneous ... | ... | ** | $\cdots$ | $\cdots$ | ... | 1780 | 1876 | 1876 |
| Index Numbers-Miscal. Lateons ... ... | $\cdots$ | ... | ... | $\cdots$ | $\ldots$ | 100 | 105 | 105 |
| Grand Total | $\ldots$ | ... | $\cdots$ |  | ... | 11019 | 14.597 | 15.029 |
| Cost of Living Index Numbers |  |  |  | . | ... | 100 | 132 | 136 |

TABLE XLIII.
Index Numbers of the Cosi of Living of the Working Classes in Rangoon.
A.-Burmese.


## ( 183 )

TABLE XLIII-conid.
Inder Numbers of the Cost of Living of the Working Classes in Rangoon.
A.-Burmese-conid.

| - |  | Cereals. | Total Food. | Clothing <br> and <br> Household Requisites. | Rent. | $\left\lvert\, \begin{gathered} \text { Fuel and } \\ \text { Light- } \\ \text { ing. } \end{gathered}\right.$ | Misce! laneous. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1917- |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 98 | 98 | 140 | 112 | 104 | 100 | 105 |
| February | $\ldots$ | 98 | 98 | 153 | 113 | 106 | 100 | 107 |
| March | ... | 97 | 98 | 153 | 113 | 106 | 100 | 107 |
| April | ... | 98 | 98 | 153 | 114 | 106 | 100 | 107 |
| May | ... | 94 | 97 | 153 | 114 | 106 | 100 | 106 |
| June | $\ldots$ | 89 | 95 | 154 | 115 | 106 | 100 | 105 |
| July | $\ldots$ | 85 | 94 | 154 | 115 | 106 | 100 | 105 |
| August | ... | 82 | 94 | 166 | 116 | 106 | 100 | 107 |
| September | ... | 74 | 92 | 166 | 117 | 106 | 100 | 105 |
| October | ... | 74 | 92 | 108 | 117 | 106 | 100 | 106 |
| November | $\ldots$ | 89 | 98 | 168 | 118 | 106 | 100 | 109 |
| December | $\ldots$ | 89 | 98 | 168 | 118 | 107 | 100 | 109 |
| 1918- |  |  |  |  |  |  |  |  |
| January | ... | 89 | 99 | 181 | 119 | 108 | 104 | 112 |
| February | $\ldots$ | 87 | 98 | 183 | 120 | 108 | 104 | 112 |
| March | $\ldots$ | 88 | 99 | 184 | 120 | 108 | 104 | 113 |
| April | $\cdots$ | 86 | 99 | 187 | 121 | 108 | 104 | 113 |
| May | ... | 55 | 99 | 189 | 121 | 108 | 104 | 113 |
| June | ... | 84 | 101 | 189 | 122 | 108 | 104 | 115 |
| July | ... | 84 | 102 | 198 | 122 | 108 | 104 | 116 |
| August | $\ldots$ | 93 | 109 | 203 | 123 | 108 | 104 | 121 |
| September | ... | 109 | 105 | 207 | 124 | 108 | 104 | 119 |
| October | ... | 116 | 111 | 209 | 124 | 117 | 104 | 123 |
| Novernber | ... | 115 | 108 | 213 | 125 | 117 | 104 | 122 |
| December | ... | 116 | 113 | 217 | 125 | 117 | 104 | 126 |
| 1919- |  |  |  |  |  |  |  |  |
| January | $\ldots$ | 118 | 112 | 231 | 126 | 117 | 104 | 127 |
| February | ... | 120 | 113 | 231 | 127 | 110 | 104 | 127 |
| March | ... | 123 | 115 | 232 | 127 | 111 | 104 | 128 |
| April | ... | 117 | 115 | 231 | 128 | 108 | 104 | 128 |
| May | ... | 117 | 120 | 234 | 128 | 108 | 104 | 132 |
| June | ... | 118 | 125 | 240 | 129 | 122 | 104 | 136 |
| July | ... | 118 | 127 | 235 | 129 | 123 | 104 | 137 |
| ${ }^{\text {August }}$ | ... | 120 | 129 | 236 | 130 | 127 | 104 | 139 |
| September | ... | 122 | 126 | 236 | 130 | 128 | 104 | 137 |
| October | ... | 123 | 125 | 228 | 130 | 123 | 104 | 135 |
| November | ... | 126 | 122 | 228 | 130 130 | 127 130 | 104 104 | 133 135 |

(1884)

TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.
A.-Burmese-conid.


TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon
A-Burmese-comid.


TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.
A.-Burmese-concld.


TABLE XLIII-conid.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.
B-Tamils, Telugus and Uriyas.


TABLE XLIII-condd
Indux Numbers of the Cout pf Living of the Working Classes in Rongoon.

## B.-Tamils, Telugus and Uriyas-contd.

| . - |  | Cereals. | Total Food. | Clothing and Household Requisites. | Rent. | $\begin{gathered} \text { Fuel } \\ \text { and } \\ \text { Lighting } \end{gathered}$ | Miscellaneous, | Total Cost of Living- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1917- |  |  |  |  |  |  |  |  |
| January | ... | 99 | 105 | 177 | 117 | 102 | 97 | 108 |
| February | $\ldots$ | 99 | 105 | 177 | 118 | 103 | 97 | 108 |
| March | ... | 99 | 104 | 177 | 119 | 103 | 97 | 108 |
| April | $\ldots$ | 99 | 104 | 177 | 120 | 103 | 97 | 108 |
| May | *.. | 94 | 102 | 177 | 120 | 103 | 97 | 107 |
| June | $\ldots$ | 90 | 100 | 177 | 121 | 103 | 97 | 106 |
| July | $\ldots$ | 87 | 101 | 177 | 122 | 103 | 97 | 107 |
| August | ... | 84 | 101 | 192 | 123 | 103 | 97 | 108 |
| September | ... | 78 | 99 | 192 | 123 | 103 | 97 | 107 |
| October | ... | 78 | 99 | 192 | 124 | 103 | 97 | 107 |
| November | $\ldots$ | 88 | 106 | 192 | 125 | 103 | 97 | 110 |
| December | ... | 88 | 109 | 192 | 125 | 104 | 97 | 112 |
| 1918- |  |  |  |  |  |  |  |  |
| January | ... | 88 | 110 | 206 | 126 | 104 | 99 | 114 |
| February | - | 88 | 110 | 206 | 127 | 104 | 99 | 114 |
| March | ** | 84 | 110 | 206 | 328 | 104 | 99 | 114 |
| April | * | 84 | 110 | 206 | 128 | 104 | 99 | 114 |
| May | ... | 81 | 110 | 206 | 129 | 104 | 99 | 114 |
| June | $\ldots$ | 78 | 113 | 206 | 130 | 104 | 99 | 116 |
| July | .... | 81 | 119 | 233 | 131 | 104 | 99 | 121 |
| August | $\bullet$ | 88 | 125 | 250 | 131 | 104 | 99 | 125 |
| September | $\ldots$ | 107 | 129 | 258 | 132 | 104 | 99 | 128 |
| October | $\ldots$ | 113 | 132 | 275 | 133 | 116 | 99 | 131 |
| November | $\ldots$ | 113 | 136 | 292 | 133 | 116 | 99 | 134 |
| December | $\bullet$ | 118 | 143 | 310 | 134 | 116 | 99 | 139 |
| 1919- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 118 | 141 | 310 | 135 | 116 | 99 | 138 |
| February | - | 118 | 142 | 310 | 136 | 107 | 99 | 138 |
| March | * | 125 | 145 | 310 | 136 | 109 | 99 | 139 |
| April | $\cdots$ | 125 | 141 | 307 | 137 | 104 | 99 | 137 |
| say | *.. | 125 | 144 | 292 | 138 | 104 | 99 | 138 |
| June | $\ldots$ | 125 | 148 | 292 | 139 | 111 | 99 | 140 |
| July | - | 125 | 150 | 275 | 139 | 112 | 99 | 140 |
| August | . | 125 | 151 | 275 | 140 | 116 | 99 | 141 |
| September | $\cdots$ | 125 | 147 | 275 | 140 | 118 | 99 | 139 |
| October | $\ldots$ | 125 | 147 | 275 | 140 | 112 | 99 | 139 |
| November | $\ldots$ | 129 | 145 | 275 | 140 | 116 | 99 | 138 140 |
| December | ... | 129 | 148 | 275. | 140 | 121 | 99 | 140 |

TABLE XLIII-Cowid.
Index Numbers of the Cost of Living of the Working Classes in Ruskgoonn
B.-Tamils, Telugus and Uriyas-contd.

| - |  | Cereals. | Total Food. | Clothing and Household Requisites. | Rent. | $\left\|\begin{array}{c} \text { Fuel } \\ \text { and } \\ \text { Lighting. } \end{array}\right\|$ | Miscellaneous. | Total Cost of Living: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 |  |  |  |  |  |  |  |  |
| January | -- | 140 | 147 |  |  |  |  |  |
| February | $\cdots$ | 143 | 147 | 301 | 140 | 121 | 99 | 441 |
| March | $\ldots$ | 141 | 150 | 301 | 140 | 124 | 99 | 141 |
| April | * | 146 | 154 | 301 | 140 | 124 | 99 | 143 |
| May | $* *$ | 146 | 156 | 301 | 140 | 115 | 99 | 144 |
| Jume | $\cdots$ | 146 | 162 | 301 | 140 | 124 | 99 | 145 |
| July | $\cdots$ | 146 | 163 | 284 | 140 | 124 | 99 | 149 |
| August | $\ldots$ | 146 | 160 | 298 | 140 | 125 | 99 | 148 |
| September | $\ldots$ | 146 | 154 | 298 | 140 | 123 | 99 | $148^{\circ}$ |
| October | $\ldots$ | 146 | 156 | 298 | 140 | 120 | 99 | 144 |
| November | $\ldots$ | 146 | 151 | 298 | 140 140 | 120 | 99 | 145 |
| December | ... | 135 | 148 | 298 | 140 | 121 | 99 | 141 |
| 1921- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 134 | 155 | 260 | 140 |  |  |  |
| February | $\cdots$ | 134 | 151 | 260 | 146 | 127 | 99 49 | 143 |
| March | $\ldots$ | 129 | 147 | 260 | 140 | 128 | 49 | 145 |
| April | $\ldots$ | 129 | 149 | 260 | 140 | 138 | 99 | 139 140 |
| May | ... | 141 | 158 | 260 | 140 | 138. | 99 | 140 |
| June | * | 149 | 160 | 231 | 140 | 138 | 99 | 145 |
| July | $\ldots$ | 153 | 164 | 231 | 140. | 138. | 99 | 146 |
| August | ... | 165 | 179 | 231 | 140 | 138. | 99 | 1460 |
| September | - | 171 | 173 | 231 | 140. | 138. | 99 | + 150 |
| October November | $\cdots$ | 176 | 172 | 231 | 140. | 137. | 99 | 150 |
| November December | ** | 188 | 174 | 231 | 140 | 137. | 99 | 151 |
| December | $\cdots$ | 198 | 180 | 231 | 140 | 137 | 93 | 154 |
| 1922- |  |  |  |  |  |  |  |  |
| January | $\ldots$ | 190 | 181 | 218 |  |  |  |  |
| Kebruary | $\cdots$ | 178 | 174 | 213 | 140 | 137 | 104 | 155 |
| March | $\cdots$ | 155 | 165 | 213 | - 140 | ${ }_{138}^{138}$ | 104 | 152 |
| April | $\cdots$ | 147 | 168 | 218 | -140 | 135 | 104 | 147 |
| May | ... | 147 | 172 | 218 | 140. | 135 | 104 | 148 |
| June | $\ldots$ | 147 | 169 | 199 | 140 ; | 140 | 104 | 150 |
| juy | $\cdots$ | 147 | 170 | 199 | 140 | 139 | 104 | 148 |
| August | ... | 147 | 166 | 199 | 140 | 139 | 104 | 148 |
| September | $\ldots$ | 143 | 163 | 199 | 140 | 139 | 104 | 148 |
| October | . | 141 | 160 | 199 | 140 | 139 | 104 | 145 |
| Noveraber. | $\ldots$ | 141 | 159 | 199 | 140 | 139. | 104 | 143 143 |
| Secmber. | ... | 135 | 157 | 199 | 140 | 146 | 104 | - H 43 |

TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.
B.-Tamils, Telugus and Uriyas-conid.

| - |  | Cereals. | Total Food. | Clothing and Household Requisites. | Rent. | $\left\lvert\, \begin{gathered} \text { Fiel } \\ \text { and } \\ \text { Lighting } \end{gathered}\right.$ | Miscellaneous. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| 1923- |  |  |  |  |  |  |  |  |
| Jandary |  | 134 | 156 | 196 | 140 | 143 | 90 | 138 |
| February | ... | 132 | 154 | 196 | 140 | 139 | 90 | 136 |
| March | .... | 132 | 151 | 196 | 140 | 138 | 90 | 135 |
| April | ... | 135 | 151 | 196 | 140 | 138 | 90 | 135 |
| May | ** | 135 | 150 | 196 | 140 | 132 | 90 | 134 |
| June | ... | 141 | 154 | 182 | 140 | 132 | 90 | 135 |
| July | ... | 134 | 152 | 182 | 140 | 132 | 91 | 134 |
| August | *** | 134 | 151 | 182 | 140 | 132 | 91 | 134 |
| September | ... | 143 | 154 | 196 | 140 | 132 | 91 | 136 |
| October |  | 143 | 156 | 196 | 140 | 135 | 91 | 137 |
| November | $\ldots$ | 141 | 154 | 196 | 140 | 135 | 91 | 136 |
| December | ... | 146 | 155 | 196 | 140 | 135 | 92 | 137 |
| 1924 |  |  |  |  |  |  |  |  |
| January | $\ldots$ | 146 | 156 | 184 | 140 | 135 | 106 | 141 |
| February | ... | 149 | 157 | 184 | 140 | 135 | 106 | 141 |
| March | $\ldots$ | 149 | 157 | 184 | 140 | 135 | 106 | 141 |
| April | ** | 153 | 158 | 184 | 140 | 135 | 106 | 142 |
| May | $\cdots$ | 153 | 156 | 184 | 140 | 135 | 106 | 141 |
| June | . | 153 | 159 | 180 | 140 | 135 | 106 | 142 |
| July | ... | 153 | 162 | 180 | 140 | 135 | 106 | 143 |
| August | ... | 157 | 167 | 188 | 140 | 135 | 106 | 147 |
| September | ... | 159 | 168 | 188 | 140 | 135 | 106 | 147 |
| October | ... | 157 | 161 | 188 | 140 | 135 | 106 | 143 |
| November | $\ldots$ | 157 | 155 | 188 | 140 | 135 | 106 | 141 |
| December | $\ldots$ | 153 | 155 | 188 | 140 | 135 | 106 | 141 |
| .1825- |  |  |  |  |  |  |  |  |
| January | ... | 157 | 154 | 184 | 140 | 135 | 106 | 149 |
| February | $\ldots$ | 157 | 152 | 184 | 140 | 135 | 108 | 139 |
| - March | ... | 159 | 153 | 184 | 140 | 135 | 106 | 139 |
| April | $\ldots$ | 153 | 151 | 169 | 140 | 140 | 106 | 138 |
| May | ... | 147 | 150 | 169 | 140 | 146 | 106 | 137 |
| June | ... | 143 | 153 | 155 | 140 | 146 | 106 | 138 |
| July | $\ldots$ | 140 | 151 | 155 | 140 | 135 | 106 | 136 |
| August | . | 141 | 149 | 155 | 140 | 137 | 106 | 135 |
| September | $\ldots$ | 146 | 149 | 155 | 140 | 140 | 106 | 136 |
| October | ** | 147 | 146 | 155 | 140 | 146 | 106 | 134 |
| November | :. | 147 | 145 | 155 | 140 | 146 | 106 | 134 |
| December |  | 152 | 147 | - 155 | 140 | 146 | 106 | 135 |

TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon. B.-Tamils, Telugus and Uriyas-concld


TABLE XLMI-contd:
Index Numbers of the Cosi of Lining of the Working Classes.in Rangoot.
C.-Hindustanis.

| - |  | Cereals. | Total Food. | $\left\lvert\, \begin{gathered} \text { Clothing } \\ \text { and } \\ \text { House- } \\ \text { hoid } \\ \text { Requisi- } \\ \text { tes. } \end{gathered}\right.$ | Rent. | Fued and Lighting | Miscellaneous. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1913 (base year)- |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1914 |  |  |  |  |  |  |  |  |
| Imauary | ... | 97 | 98 | 83 | 100 | 101 | 100 | 98 |
| February | ... | 96 | 98 | $(3$ | $10 \%$ | 101 | 100 | 98 |
| March | ... | 97 | 98 | 83 | 101 | 101 | 100 | 98. |
| April | ... | 98 | 97 | 83 | 101 | 101 | 100 | 97 |
| May | $\ldots$ | 98 | 97 | 83 | 101 | 101 | 100 | 97 |
| June | ... | 103 | 100 | 83 | 102 | 101 | 100 | 99 |
| july | ... | 98 | 97 | 83 | 102 | 104 | 100 | 97 |
| August | $\cdots$ | 101 | 100 | 83 | 103 | 101 | 100 | 99. |
| September | . | 94 | 95 | 83 | 102 | 101 | 100 | 96 |
| October | * | 105 | 100 | 83 | 103 | 101 | 100 | 99 |
| November | $\ldots$ | 111 | 103 | 83 | 103 | 101 | 100 | 101 |
| Deecember | . | 112 | 105 | 83 | 103 | 101 | 100 | 102: |
| 1915- |  |  |  |  |  |  |  |  |
| January | ..' | 114 | 107 | 98 | 103 | 101 | 100 | 105 |
| February | $\ldots$ | 112 | 107 | 98 | 104 | 101 | 100 | 105 |
| March: | * | 92 | 96 | 98 | 104 | 101 | 100 | 98. |
| April | - | 98 | 99 | 98 | 104 | 101 | 100 | 100 |
| May | ... | 98 | 97 | 98 | 104 | 101 | 100 | 99 |
| June | ... | 103 | 100 | 98 | 105 | 101 | 100 | 101 |
| Joly | $\cdots$ | 113 | 107 | 98 | 105 | 101 | 100 | 105 |
| August | $\ldots$ | 121 | 114 | 98 | 105 | 101 | 100 | 109 |
| Septernber | ** | 121 | 115 | 130 | 108 | 101 | 100 | 112 |
| October | $\cdots$ | 120 | 116 | 130 | 106 | 101 | 100 | 113 |
| Noveriber | $\ldots$ | 119 | 116 | 130 | 107 | 101 | 100 | 113 |
| December | - | 118 | 117 | 130 | 108 | 101 | 100 | 114 |
| 1916- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 117 | 114 | 130 | 109 | 101 | 100 | 113 |
| February | ... | 116 | 112 | 151 | 109 | 101 | 100 | 112 |
| March: | .10 | 105 | 105 | 151 | 118 | 101 | 100 | 108 |
| April | ... | 105 | 105 | 151 | 111 | . 101 | 100 | 108 |
| May | ... | 105 | 104 | 151 | 112 | (i 101 | 100. | 168 |
| Jane | $\ldots$ | 105 | 106 | 151 | 111 | . 101 | 100 | 109 |
| 'July | $\cdots$ | 108 | 102 | 151 | 118 | - 101 | 100 | 107 |
| August | ... | 107 | 107 | 168 | 118 | 101 | 100 | 111 |
| September | ... | 109 | 108 | 168 | 114 | - 101 | 100 | 112 |
| October | ... | 107 | 108 | 168 | 115 | 101 | 100 | 112 |
| Noveriber | $\ldots$ | 107 | 108 | 168 | 116 | 101 | 100 | 112 |
| December | ... | 107 | 108 | 168 | 117 | 101 | 100 | 113 |

TABLE XLIII-contd.
Inder Numbers of the Cost of Living of the Working Classes in Rangoon.
C.-Hindustanis-contd.

| - |  | Cereals. | Total Food | Clothing and <br> House. hold <br> Requisites. | Rent. | Fuel and Lighting. | Miscel laneous. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1917- |  |  |  |  |  |  |  |  |
| January | ... | 108 | 107 | 183 | 117 | 102 | 100 | 113 |
| February | ... | 108 | 108 | 183 | 118 | 103 | 100 | 114 |
| March | ... | 103 | 105 | 183 | 119 | 103 | 100 | 112 |
| April | ... | 103 | 103 | 183 | 120 | 103 | 100 | 141 |
| May | ... | 101 | 101 | 183 | 120 | 103 | 100 | 110. |
| Jone | $\ldots$ | 98 | 100 | 183 | 121 | 103 | 100 | 109 |
| July | ... | 95 | 100 | 183 | 122 | 103 | 100 | 109. |
| August | ..- | 98 | 105 | 200 | 123 | 103 | 100 | 114 |
| September | ... | 93 | 103 | 200 | 123 | 103 | 100 | 113 |
| October | ... | 93 | 104 | 200 | 124 | 103 | 100 | 113 |
| Novermber | ... | 107 | 110 | 200 | 125 | 103 | 100 | 117 |
| December | ..- | 107 | 113 | 200 | 125 | 104 | 100 | 119. |
| 1918- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 107 | 113 | 217 | 126 | 104 | 105 | 121 |
| February | $\ldots$ | 106 | 112 | 219 | 127 | 104 | 105 | 121 |
| March | $\ldots$ | 106 | 114 | 221 | 128 | 104 | 105 | 123. |
| April | ... | 100 | 110 | 221 | 128 | 104 | 105 | 120 |
| may | ... | 99 | 111 | 223 | 129 | 104 | 105 | 121 |
| June | $\ldots$ | 99 | 113 | 223 | 130 | 104 | 105 | 122 |
| July | ... | 99 | 113 | 249 | 131 | 104 | 105 | 124 |
| August | ... | 114 | 121 | 265 | 131 | 104 | 105 | 131 |
| September | ... | 124 | 129 | 270 | 132 | 104 | 105 | 196. |
| October | ... | 129 | 132 | 285 | 133 | 116 | 105 | 140 |
| November | ... | 128 | 136 | 300 | 133 | 116 | 105 | 144 |
| December. | ... | 138 | 144 | 317 | 134 | 116 | 105 | 150. |
| 1919- |  |  |  |  |  |  |  |  |
| January | ... | 148 | 156 | 317 | 135 | 116 | 105 | 158. |
| February | ... | 149 | 155 | 317 | 136 | 107 | 105 | 157 |
| March | ... | 152 | 152 | 317 | 136 | 109 | 105 | 155 |
| April | $\ldots$ | 139 | 145 | 315 | 137 | 104 | 105 | 150. |
| May | $\ldots$ | 139 | 146 | 300 | 138 | 104 | 105 | 150. |
| June | $\cdots$ | 140 | 151 | 300 | 139 | 111 | 105 | 153 |
| July | $\cdots$ | 140 | 155 | 283 | 139 | 112 | 105 | 155 |
| August September | $\ldots$ | 141 | 157 156 | 283 283 | 140 | 116 | 105 | 156 |
| September | $\cdots$ | 142 | 156 | 283 283 | 140 | 118 | 105 | 156 |
| November | $\cdots$ | 145 | 158 | 283 | 140 | 112 | 105 | 157 |
| Eecember | ** | 145 | 161 | 283 | 140 | 121 | 105 | 159 |

TABLE XLIII-conid.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.
C.-Hindustanis-contd.


TABLE XLII-conid.
Index Numbers of the Cost of Living of the Working Classes in Rangoos.
C.-Hindustanis-conid.

| - |  | Cereals. | Total Food. | Clothing <br> and Honsehold Requisites. | Rent. | $\left\|\begin{array}{c} \text { Fuel } \\ \text { and } \\ \text { Lighting. } \end{array}\right\|$ | Miscellaneous. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1923- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 146 | 157 | 204 | 140 | 143 | 105 | 152 |
| February | $\ldots$ | 138 | 150 | 204 | 140 | 139 | 105 | 147 |
| March | ... | 138 | 150 | 204 | 140 | 135 | 105 | 147 |
| April | $\ldots$ | 139 | 150 | 204 | 140 | 138 | 105 | 147 |
| May | ... | 139 | 150 | 204 | 140 | 132 | 105 | 147 |
| June | ... | 141 | 153 | 189 | 140 | 132 | 105 | 147 |
| July | ... | 138 | 151 | 189 | 140 | 132 | 107 | 146 |
| August | ... | 140 | 148 | 189 | 140 | 132 | 107 | 144 |
| September | ... | 143 | 149 | 204 | 140 | 132 | 107 | 147 |
| October | $\ldots$ | 143 | 147 | 204 | 140 | 135 | 107 | 146 |
| November | $\ldots$ | 143 | 146 | 204 | 140 | 135 | 107 | 145 |
| December | ... | 138 | 145 | 204 | 140 | 135 | 109 | 144 |
| 1924- |  |  |  |  |  |  |  |  |
| January | ** | 139 | 146 | 185 | 140 | 135 | 109 | 143 |
| February | . | 139 | 146 | 185 | 140 | 135 | 109 | 143 |
| March | $\ldots$ | 139 | 145 | 185 | 140 | 135 | 109 | 143 |
| April | ... | 140 | 146 | 185 | 140 | 135 | 109 | 143 |
| May | ... | 145 | 149 | 185 | 140 | 135 | 109 | 146 |
| June | ** | 146 | 151 | 182 | 140 | 135 | 109 | 146 |
| July | ... | 146 | 154 | 182 | 140 | 135 | 109 | 148 |
| August | ... | 156 | 160 | 190 | 140 | 135 | 109 | 152 |
| September October | $\ldots$ | 157 | 161 157 | 190 190 | 140 <br> 140 <br> 10 | 135 | 109 | 153 |
| October | *** | 157 <br> 157 | 157 <br> 155 | 190 190 | 140 140 | 135 <br> 135 | 109 | 151 |
| December | ** | 155 | 156 | 190 | 140 | 135 135 | 109 | 149 |
| 1925- |  |  |  |  |  |  |  |  |
| January | ... | 160 | 157 | 185 | 140 | 135 |  |  |
| February | $\ldots$ | 162 | 157 | 185 | 140 | 135 | 109 | 150 150 |
| March | ... | -162 | 156 | 185 | 140 | 135 | 109 | 150 150 |
| April | .... | 155 | 154 154 | 172 172 172 | 140 140 | 140 146 | 109 109 | 148 |
| June | $\cdots$ | 151 | 154 | 172 157 | 140 | 146 | 109 | 148 |
| July | $\ldots$ | 150 | 152 | 157 | 140 | 146 | 109 | 147 145 |
| Augast | ... | 149 | 151 | 157 | 140 | 135 137 | 109 | 145 |
| September | ... | 151 | 151 | 157 | 140 | 140 | 109 | 145 |
| October November | $\ldots$ | 151 | 150 152 | 157 157 | $140-$ | 146 | 109 | 145 |
| November <br> December | $\ldots$ | 149 151 | 152 | 157 | 140 | 146 | 109 | 146 |
| December | *** | 15. | 152 | 157 | 140 | 146 | 109 | 146 |

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TABLE XLIIT-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoon.

## C.-Hindustanis-concld.



## TABLE XLIII-mastd.

Index Numbers of the Cost of Living of the Working Classes in Rangoon.

## D.-Chittagonians.

| - |  | Cereals. | Total Food, | Clothing and House hold Requisites. | Rent. | Fuel and Lighting. | Miscellaneous. | Total Cost of Living: |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1913 (base year) ... |  | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| .1814 |  |  |  |  |  |  |  |  |
| Jamuary | ... | 94 | 90 | 91 | 100 | 102 ' | 100 | 93 |
| February | ... | 93 | 90 | 91 | 101 | 102 | 100 | 94 |
| March | ... | 94 | 90 | 88 | 101 | 102 | 100 | 93 |
| April | $\ldots$ | 96 | 88 | 88 | 101 | 102 | 100 | 92 |
| -May | ... | 96 | 89 | 88 | 101 | 102 | 100 | 93 |
| June | ... | 96 | 90 | 88 | 102 | 102 | 100 | 93 |
| July | $\ldots$ | 96 | 89 | 88 | 102 | 102 | 100 | 93 |
| August | ... | 93 | 89 | 88 | 102 | 102 | 100 | 93 |
| September | *** | 90 | 90 | 88 | 102 | 102 | 100 | 93 |
| October | . | 91 | 89 | 88 | 103 | 102 | 100 | 193 |
| November | ... | 93 | 90 | 88 | 103 | - 102 | 100 | 93 |
| December | ** | 94 | 92 | 45 | 103 | 102 | 100 | 94 |
| 1915- |  |  |  |  |  |  |  |  |
| January | $\ldots$ | 91 | 91 | 95 | 103 | 102 | 100 | 45 |
| February | -5: | 87 | 91 | 95 | 104 | 102 | 100 | 95 |
| March | $\cdots$ | 87. | 90 | 95 | 104 | 102 | 100 | 94 |
| April | $\cdots$ | 87 | 90 | 95 | 104 | 102 | 100 | 94 |
| May | $\ldots$ | 87 | . 89 | 95 | 104 | 102 | 100 | 93 |
| June | $\ldots$ | 97 | - 93 | 98 | 105 | 102 | 100 | 96 |
| July | $\cdots$ | 104 | 97 | 98 | 105 | 102 | 100 | 99 |
| August | ... | 109 | 99 | 98 | 105 | 102 | 100 | 100 |
| September | ss: | 110 | 100 | 111 | 106 | 102 | 100 | 102 |
| October | $\ldots$ | 110 | 102 | 111 | 106 | 102 | 100 | 103 |
| November | *-. | 109 | 103 | 111 | 107 | 102 | 100 | 103 |
| December | *** | 106 | 105 | 112 | 108 | 102 | 100 | 105 |
| 1916- |  |  |  |  |  |  |  |  |
| January | $\cdots$ | 104 | 99 | 122 | 109 | 102 | 100 | 102 |
| Febraary | . 8 | 97 | 95 | 134 | 109 | 102 | 100 | 100 |
| March | ... | 96 | 94 | 134 | 110 | 102 | 100 | 100 |
| April | $\ldots$ | 96 | 93 | 134 | 111 | 102 | 100 | 100 |
| May | ... | 96 | 94 | 134 | 112 | 102 | 100 | 100 |
| June | *a* | 96 | 96 | 143. | 112 | 102 | 100 | 102 |
| July | $\ldots$ | 96 | 96 | 143 | 113 | 102 | 100 | 102 |
| August | $\ldots$ | 96 | 97 | 151. | 114 | 102 | 100 | 104 |
| Septernber | $\ldots$ | 96 | 104 | 151 | 114 | 102 | 100 | 108 |
| October | ... | 96 | 103 | 151 | 115 | 102 | 100 | 107 |
| November | $\cdots$ | 96 96 | 103 | 151 | 116 | 102 | 1.00 | 107 |
| December | $\cdots$ | 96 | 101 | 151 | 117 | 102 | 100 | 106. |

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TABLE XLIII-contd.
Index. Numbers of the Cost of Living of the Working Classes in Rangoon.
D.-Chittagonian's-contd.


## TABLE XLIII-conid.

Indes Numbers of the Cost of Living of the Working Classes in Rangoon.
D.-Chittagonians-contd.

| - |  | Cereals. | Total Food. | Clothing and House hold Requisites. | Rent. | Fuel and Lighting | Miscellaneous. | Total Cost $\boldsymbol{6}$ Living |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920- |  |  |  |  |  |  |  |  |
| January |  | 142 | 132 | 329 | 140 | 124 | 103 | 144 |
| February |  | 144 | 133 | 320 | 140 | 127 | 103 | 143 |
| March |  | 143 | 139 | 320 | 140 | 127 | 103 | 147 |
| April |  | 147 | 143 | 320 | 140 | 119 | 103 | 149 |
| Niay |  | 147 | 142 | 320 | 140 | 116 | 103 | 149 |
| June |  | 147 | 148. | 320 | 140 | 127 | 103 | 153 |
| July |  | 144 | 149 | 312 | 140 | 128 | 103 | 152 |
| August |  | 144 | 147 | 304 | 140 | 126 | 103 | 151 |
| September |  | 147 | 141 | 304 | 140 | 123 | 103 | 147 |
| October |  | 142 | 140 | 304 | 140 | 123 | 103 | 146 |
| November |  | 142 | 134 | 304 | 140 | 123 | 103 | 143 |
| December |  | 143 | 137 | 304 | 140 | 125 | 103 | 145 |
| 1921- |  |  |  |  |  |  |  |  |
| January |  | 139 | 140 | 280 | 140 | 131 | 103 | 145 |
| February | .. | 136 | 135 | 280 | 140 | 131 | 103 | 142 |
| March | . | 136 | 135 | 280 | 140 | 132 | 103 | 142 |
| April | .. | 136 | 138 | 280 | 140 | 140 | 103 | 144 |
| May | . | 137 | 143 | 280 | 140 | 141 | 103 | 147 |
| June | .. | 144 | 143 | 266 | 140 | 141 | 103 | 146 |
| July | $\cdots$ | 149 160 | 146 | 266 | 140 | 141 | 103 | 148 154 |
| September | $\ldots$ | 166 | 155 | 260 | 140 | 141 | 103 | 153 |
| October | .... | 172 | 152 | 260 | 140 | 139 | 103 | 151 |
| November |  | 212 | 164 | 260 | 140 | 139 | 103 | 159 |
| December | ... | 212 | 173 | 260 | 140 | 139 | 103 | 164 |
| 1922- |  |  |  |  |  |  |  |  |
| January | . | 206 | 174 | 239 | 140 | 139 | 103 | 163 |
| February | . | 200 | 166 | 239 | 140 | 139 | 103 | 158 |
| March | .. | 160 | 152 | 239 | 140 | 136 | 103 | 150 |
| April | .. | 143 | 152 | 239 | 140 | 136 | 103 | 149 |
| May | .. | 143 | 156 | 239 | 140 | 138 | 103 | 158 |
| June | $\cdots$ | 143 | 153 | 215 | 140 | 142 | 103 | 148 |
| July | -* | 143 | 153 | 215 | 140 | 140 | 103 | 148 |
| August | $\ldots$ | 143 | 153 | 215 | 140 | 140 | 103 | 148 |
| September | $\ldots$ | 143 | 147 | 215 | 140 | 140 | 103 | 144 |
| October - | - | 137 | 142 | 215 | 140 | 140 | 103 | 141 |
| November | ... | 137 | 139 | 215 | 140 | 143 | 103 | 140 |
| December | ... | 126 | 135 | 215 | 140 | 146 | 103 | 137 |

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TABLE XLIII-contd.
Index Numbers of the Cost of Living of the Working Classes in Rangoons.
D.-Chittagonians-contd:

| - |  | Cereals. | Total Food. | Clothing and House- hold Requi- sites. | Rent. | $\left\lvert\, \begin{gathered} \text { Fuel } \\ \text { and } \\ \text { Lighting } \end{gathered}\right.$ | MiscelLanecus. | Total Cost of Living. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1923- |  |  |  |  |  |  |  |  |
| January | ... | 130 | 137 | 213 | 140 | 145 | 103 | 138 |
| February | ... | 130 | 134 | 213 | 140 | 140 | 103 | 136 |
| March | ... | 130 | 132 | 213 | 140 | 139 | 103 | 135 |
| April | ... | 130 | 134 | 213 | 140 | 139 | 103 | 136 |
| may | ... | 130 | 134 | 213 | 140 | 134 | 103 | 136 |
| gune | ... | 137 | 140 | 206 | 140 | 134 | 103 | 139 |
| fuy | ... | 130 | 138 | 206 | 140 | 134 | 104 | 138 |
| August | ... | 133 | 138 | 206 | 140 | 134 | 104 | 138 |
| September | ... | 139 | 138 | 213 | 140 | 134 | 104 | 138 |
| October | ... | 137 | 138 | 213 | 140 | 136 | 104 | 139 |
| November | ... | 139 | 136 | 213 | 140 | 136 | 104 | 138 |
| Depcember | ... | 139 | 137 | 213 | 140 | 136 | 105 | 138 |
| 1924. |  |  |  |  |  |  |  |  |
| January | ... | 139 | 137 | 202 | 140 | 136 | 105 | 137 |
| February | ... | 139 | 137 | 202 | 140 | 136 | 105 | 137 |
| March | ... | 139 | 138 | 196 | 140 | 136 | 105 | 137 |
| April | ... | 142 | 139 | 196 | 140 | 136 | 105 | 138 |
| May | ... | 142 | 135 | 196 | 140 | 136 | 105 | 136 |
| Inne | ... | 142 | 139 | 194 | 140 | 136 | 105 | 138 |
| 3 Jag | - | 142 | 140 | 194 | 140 | 136 | 105 | 139 |
| August | ... | 153 | 150 | 198 | 140 | 136 | 105 | 145 |
| Septeniber |  | 154 | 151 | 198 | 140 | 135 | 105 | 146 |
| October |  | 153 | 142 | 198 | 140 | 136 | 105 | 140 |
| November | $\ldots$ | 153 | 136 | 198 | 140 | 136 | 105 | 136 |
| December | * | 149 | 137 | 198 | 140 | 136 | 105 | 137 |
| 1925-1 |  |  |  |  |  |  |  |  |
| Jandary | $\ldots$ | 156 | 136 | 196 | 140 | 136 | 105 | 137 |
| February | ... | 159 | 136 | 196 | 140 | 136 | 105 | 136 |
| Parch | ... | 159 | 137 | 196 | 140 | 136 | 105 | 137 |
| April | ... | 149 | 134 | 196 | 140 | 142 | 105 | 136 |
| May | ... | 144 | 135 | 196 | 140 | 148 | 105 | ${ }^{136}$ |
| June | ... | 142 | 140 | 190 | 140 | 148 | 105 | 139 |
| July | $\bullet$ | 139 | 138 | 190 | 140 | 136 | 105 | 137 |
| August | ... | 137 | 133 | 196 | 140 | 138 | 105 | 134 |
| September | ... | 142 | 133 | 196 | 140 | 141 | 105 | 134 |
| Oclober | ... | 142 | 128 | 196 | 140 | 148 | 105 | 132 |
| Sovember | ... | 139 | 126 | 196 | 140 | 148 | 105 | 132 130 |
| December | .. | 143 | 126 | 196 | 140 | 148 | 105 | 13 |

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TABLE XLIH-xoncid.
hedex Numbers of the Cost of Liviag of the Working Classes is Rangoon.
D.-Chittagonians-concld.


TABLE XLIV.
Errors produced in the Index Numbers for December 1927 by Errors int. Prices and Weights.
A.-Burmese.


TABLE XLIV-conid.
Errors produced in the Index Numbers for December 1927 by Errors ins Prices and Weights. B.-Tamils, Telugus and Uriyas.

| Commodity. | Percentage error produced in the Index Number for December 1927 by a |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 10 per cent. error in the price in 1913 (base year.) | 10 per cent. error in the price in December 1927. | 10 per cent. error in the weight. | 100 per cent. error in the weight. |
| Food- |  |  |  |  |
| Rice-Ngasein, 2nd quality | -213 | 2*14 | '02 | -13* |
| Arhar ... ... | -23 | 30 | -08 | $\cdot 74$ |
| Sugar ... ... | -07 | 08 | $\cdots$ | . 04 |
| Tea ... ... | -12 | 17 | . 05 | -45 |
| Fish, fresh ... | -60 | -45 | $-15$ | -1.41 |
| Fish, salted, dry ... | $-20$ | -20 | ... | -01 |
| Mutton, goat ... | $\rightarrow$-50 | $\cdot 75$ | -25 | $2 \cdot 40$ |
| Milk, condensed ... | -'25 | 23 | -02 | -20. |
| Salt | -. 05 | . 06 | -01 | 06 |
| Tamarind ... ... | - 14 | 17 | .03 | -32: |
| Chillies ... | -26 | $\cdot 34$ | -08 | $\cdot 74$ |
| Potatios ... ... | - 10 | . 08 | -02 | -.15 |
| Onions ... ... | $-10$ | '39 | -01 | -09 |
| Sesamum oil ... | -. 33 | $\cdot 26$ | -07 | -.68 |
| Clothing aftd Housthold-Requisites- |  |  |  |  |
| Mull .*. ... | -.09 | '11 | . 03 | -25 |
| Grey Shirting ... | - 38 | '38 | ... | -01 |
| Khaki Twill ... | -19 | - 20 | . 01 | 10 |
| Rent- | --80 | 109 | . 29 | $2 \cdot 64$ |
| Fuel afd LightingFirewood | -48 | -48 | ... | . 04 |
| Kerosene ... .a. | $-69$ | $\cdot 11$ | $\cdot 03$ | -25- |
| Miscellaneous- ... ... Soap | -28 | 28 | ..- | -01 |
| Cheroots ... ... | $-120$ | 90 | $-30$ | -2.65 |
| Toddy ... | -. 23 | -23 | ... | -01 |
| Hlawzaye (paye) ...0 | $-1.20$ | -90 | -30 | -265 |

TABLE XITV-ccordd.
Errors produced in the Index Numbers for December 1927 by Errors in Prices and Weights.

## C.-Hindustanis.



TABLE XLIV-concld.
Errors produced in the Index Numbers for December 1927 by Errors in: Prices and Weights.

## D.-Chittagonians.

| Commodity |  |  | Percentage error produced in the Index Number for December 1927 by a |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 10 per cent. error in the price in 1913 tbase year). | 10 per cent. error in the price in December 1927. | 10 per cent. error in the weight. | 100 per cent. error in the weight. |
| Food- <br> Rice-Kamakyi, znd quality Moong |  |  |  |  |  |  |
|  |  |  | -227 | $2 \cdot 36$ | . 09 | 69 |
|  |  |  | - 60 | '60 | 01 | . 05 |
| Sugar | $\cdots$ | $\ldots$ | -. 08 | -09 | 01 | . 05 |
| Tea | $\ldots$ | ... | -14 | -19 | '05 | $\cdot 51$ |
| Fish, fresh | $\ldots$ | :** | -1.13 | *86 | - 28 | -2.49 |
| Fish, salted, |  | ... | - 17 | $\cdot 17$ | - | . 01 |
| Beef | $\cdots$ | ... | -. 45 | '34 | - 11 | -1.06 |
| Milk, condens |  | $\cdots$ | - 28 | '26 | -. 02 | - 21 |
| Salt | $\ldots$ | $\ldots$ | $=.06$ -.30 | . 39 | . 09 | .86 |
| Potatoes | $\ldots$ | ... | - 28 | -24 | - 04 | - 40 |
| Onions | $\cdots$ | ... | - 11 | '10 | - 01 | - 10. |
| Mustard oil | ... | ... | - ${ }^{28}$ | . 28 | - 01 | - 05 |
| Clothing and Household Requisites- |  |  |  |  |  |  |
| Grey Shirting |  | ... | - 17 | $\cdot 17$ | . 15 | $\begin{array}{r}101 \\ 1.44 \\ \hline\end{array}$ |
| Woven Saron |  | $\cdots$ | - 40 | .55 .13 | '15 | 1.44 |
| Longcloth <br> Khaki Twill |  | ... | 二.10 | -15 | .01 | -29 |
| Rent- |  |  | -91 | 124 | $\cdot 33$ | $3 \cdot 02$ |
| Fwel and Lighting- |  |  |  |  |  |  |
| Firewood Kerosene | ... | ... | - 41 | -41 | $\cdots{ }^{\circ} 03$ | -24. |
| Wiscellantows- |  |  |  |  |  |  |
| Soap Chercots | ... | $\cdots$ | - ${ }^{26}$ | 26 103 | $\cdots \cdot 33$ | $\begin{array}{r} 02 \\ -2.92 \end{array}$ |

## APPENDICES.

# APPENDIX A. 

Budget Form.<br>(Information for use in the Labour Statistics Bureau, Burma.)

# WORKMEN'S FAMILY INCOME AND EXPENDITURE. 

Name of the head of the family_
Race, Religion and Caste-
Residential Address-
Income Class-

## NOTE.

This enquiry bas nothing whatever to do with taxation or rates. It is for the benefit of the workpeople that the information asked for is required.
2. The particulars with regard to each family will be regarded as strictly private and confidential. All the statements will be put together in such a way as to produce general averages. It is these averages which will eventually be published.
3. The present form is intended for working class families in industrial centres. Special attention should be given to cases of families living under ordinary conditions. The more ordinary the family the better because it represents a large number. On the other hand, exceptional cases should be avoided because they are not representative of any large number.
4. Information should be obtained for the most recent month because it is most likely to be exact. There may be a tendency to overstate the expenditure and to understate the family income. Where the expenditure adds up to more than the total income the Investigator should make further enquiries. In some cases the excess of expenditure over income in one month may be met out of previous savings. If so, this should be stated.

## (For detailed instructions as to filling in the particulars required, sec each page of form.)

## Reference No.

Family Income and Expenditure for Month of
Name and address of Establishment where employed

## Description of Family.

|  | Men <br> (14 years and <br> over). | Women <br> (14 years and <br> over). |
| :--- | :--- | :--- |
| Number residing with head of <br> family-age and relation to <br> head of family to be given. |  |  |
| Number and sex <br> of children <br> nnder 14 years. |  |  |
| Dependants not living with <br> head of family-relation to <br> be given. |  |  |

Family Income (1) during Month of
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| (2) | Earnings in above month. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| YInsert in this column the occupations of the wageearners.) | Wages. | Overtime pay. | Value of concessions. | Additional earnings, if any. | Total. |
|  | Rs. A. | Rs. A. | Rs. A. | Rs. A. | Rs. A. |
| Men |  |  |  |  |  |
| Wdimen |  |  |  |  |  |
| Chiddren |  |  |  |  |  |

## Total Amount of Family Income

(1) Family Income.-The monthly wages should include all war or similar bonuses regularly received but overtime pay should be entered in the separate column provided. In the column for value of concessions should be entered the approximate value of such items as free quarters, fuel or light, etc., and in the column for additional earnings should be entered any earnings by members of the family which were received otherwise than in the course of regular employment. Particulars with regard to the income and expenditure of the dependants not living with the head of the family must not be entered in this budget.
(2) Occupations.- The description of the occupation should be as definite as possible. Thus rice mill worker is too generat. The particular occupation should be specified, for example, stone dresser or cilman in a rice mill, or again. not mechanic, but fitter, blacksmith.

Expenditure on Food, Fuel, Lighting and Rent.

| Commodities. <br> (Norg-Thle list may be attered uccording to what is bought) <br> (1) | Quality or Grade. <br> (2) | Market prices. |  | Other than market price. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total quantity in month. <br> (3) | Total cost in month. <br> (4) | Total quantity in month. (5) | Total cost is month. <br> (6) |
| Brought forward ... |  |  | Rs. A. P. |  | Rs, A. P. |
| Milk, fresh ... viss |  |  |  |  |  |
| Milk, condensed ... tin |  |  |  |  |  |
| Ghee ... ... viss |  |  |  |  |  |
| Salt ... ... |  |  |  |  |  |
| Tamarind ... |  |  |  |  |  |
|  |  |  |  |  |  |
| powdered ... |  |  |  |  |  |
| Chillies ... viss |  |  |  |  |  |
| Other spices and condiments |  |  |  |  |  |
| Potatoes ... viss |  |  |  |  |  |
| Onions ... . |  |  |  |  |  |
| Frait and other vegetables. |  |  |  |  |  |
| Sesamum oil ... viss |  |  |  |  |  |
| Cocoanut oil ... " |  |  |  |  |  |
| Mustard oil ... . |  |  |  |  |  |
| Other oils used as food ", |  |  |  |  |  |
| Food bought and consumed away from home. |  |  |  |  |  |
| Other food stufif ... - |  |  |  |  |  |
| Total Expenditure on Food |  |  |  |  |  |
| Coal ... basket |  |  |  |  |  |
| Charcoal ... . |  |  |  |  |  |
| Firewood ... - |  |  |  |  |  |
| Kerosene ... bottle |  |  |  |  |  |
| Electric light ... - |  |  |  |  |  |
| Other fuel and lighting - |  |  |  |  |  |
| Total Expenditure on Fuel and Lighting |  |  |  |  |  |
| Rent per month $\dagger$... - |  |  |  |  |  |

*See note on page 3 of the Form.
$t$ "Rent " includes ground rent and taxes payable to the Development Trust and Corporation respectively and any charges for a waterman. Where workmen live in their own houses, the amount which a tenant would have tolpay for the house should be entered as Rent, and this amount, less the average monthly expenditure on ground sent, taxes and repairs, should be added to the income. Where more than one family occupy a single room, special care should be taken to enter only the share of the rent actually paid by the family to which the tradget refers.

Expenditure on Clothing not bought every month.

| - Articles. <br> (Nore-The list of articles should be extended so as to include all those in use.) | $\qquad$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clothing. For Men |  | No. | Rs. A. P. | Rs. A. P. | Months | Rs. A. |
| Dhotis ... ... |  |  |  |  |  |  |
| Longyis. silk ... ... |  |  |  |  |  |  |
| Longyis, cotton $\quad$.... |  |  |  |  |  |  |
| Trousers, Pyjamas .... |  |  |  |  |  |  |
| Banians, Bandis ... |  |  |  |  |  |  |
| Half shirts ... ... |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Aingyis or Jackets .... |  |  |  |  |  |  |
| Upper cloth ... |  |  |  |  |  |  |
| Gaungbaungs, Turbans, |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Caps |  |  |  |  |  |  |
| Sändals, , wather ... |  |  |  |  |  |  |
| Slippers ... ... |  |  |  |  |  |  |
| Umbrellas $\frac{\text { Iron }}{\text { Bamboo }}$ frames ... |  |  |  |  |  |  |
| For Women. |  |  |  |  |  |  |
| Saris $\quad .$. |  |  |  |  |  |  |
| Longyis or Tameins, silk ... |  |  |  |  |  |  |
| Longyis or Tameins, coton |  |  |  |  |  |  |
| Bodices Aingyis or Jackets |  |  |  |  |  |  |
| Tabets or Upper Cloths ... |  |  |  |  |  |  |
| Pawas Leather ${ }^{\text {a }}$. |  |  |  |  |  |  |
| Sandals, $\frac{\text { Leathes }}{\text { Wooden }}$ |  |  |  |  |  |  |
| Subpers ... ... |  |  |  |  |  |  |
| Umbrellas. $\frac{\text { Iron }}{\text { Ramboo }}$ frames ... |  |  |  |  |  |  |
| For Children. |  |  |  |  |  |  |
| Dhotis ... ... |  |  |  |  |  |  |
| Saris ... ... |  |  |  |  |  |  |
| Longvis, silk ... ... |  |  |  |  |  |  |
| Longyis, cotton ... |  |  |  |  |  |  |
| Banians ... |  |  |  |  |  |  |
| Half shirts $\quad . .$. |  |  |  |  |  |  |
| Bodices $\quad \cdots \quad \cdots$ |  |  |  |  |  |  |
| Aingyis or Jackets ... |  |  |  |  |  |  |
| Frocks $\quad .$. |  |  |  |  |  |  |
| $\begin{array}{lll}\text { Baby caps } \\ \text { Shoes } & \ldots . . & \ldots \\ & \ldots\end{array}$ |  |  |  |  |  |  |
| Sandals, $\frac{\text { Leather }}{\text { Won }}$.... |  |  |  |  |  |  |
| Slippers wooden ... |  |  |  |  |  |  |
| Umbrellas $\frac{\text { Iron }}{\text { Bamboo }}$ frames ... |  |  |  |  |  |  |
| Total Expenditure on |  |  |  |  |  |  |

Nots. -For instructions for filling up pages 5 and 6 of the Form see overleaf.

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## Expenditurs on Houschold Requisites not bought every month.

Articles.
(NOTE,-The list of articles should be extended so as to : include all those in use.)

BEDDING. $\stackrel{c}{c}$ Mats, baurboo Mats, thin or weed Mattresses
Blankets
Bed sheets
Pillows
Pillow cases
Mosquito nets


## Instructions for tilling up pages 5 and 6 of the Form.

Material.-Care should be taken to state in column 2 the particular kind and quality of materials of which the articles shown in column 1 are made.

Number of Articles.-In column 3 should be entered the number of each article actually in use at the time of the investigation, including changes of dress, possessed by the family.

Cosf per Arficic.-In column 4 should be entered the price per article when purchased. If similar articles were purchased at different prices, the prices should be entered separately and the number of articles at each price shown.

Total Cost.-Column 5 will be obtained by multiplying the number in column 3 by the price in column 4,

Duration of Articles.- In column 6 should be entered the total tive which each article may be expected to last from the date of its purchase to the date when it is finally discarded as useless.

Cost per Month.-Column 7 will be obtained by dividing the total cost in column 5 by the number entered in column 0.

## Miscellaticous Expenditure.


(a) Exclusive of those mentioned under 'rent,'
(b) Name of the particular kind or quality and brand or trade mark should be specified.
(c) If the expenditure on certain articles is not incurred regularly every month, but is of a recurring nature as in the case of medicines, annual festivals, payment to dependents, elc., the estimated annual expenditure should be divided by 12 in order to arrive at the monthly expenditure.
(d) The particular preparation, e.g., cheroots, cigarettes, sehawleik. paste, bidis or sukha should be stated.
(e) The amount of debt outstanding at the beginuing of the month should be entered here.
( $f$ ) If the expenditure exceeds the income all the items should be verified, as obviously it cannot be generally true that the expenditure exceeds the income every month. In some cases the excess of expendilure may be met out of previous earnings or by the sale of jewellery. How the excess is met should be stated.

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## NOTES OF INVESTIGATOR.

## Description of Dreelling- <br> Number of rooms occupied by family (a) <br> Approximate size of each room <br> State whether the dwelling is in a good state of repair or is dilapidated. <br> State of what materials the dwelling is built. <br> Give details as to supply of water for drinking and sani- tary arrangements. <br> State here whelher the family buys on credit or cash system.) <br> If interest was charged on credit purchases, state, if possible, what was the rate of interest. <br> Give any informalion available as to the occasional expenditure on religious ceremonies inclsding marriages and funerals (b) :— <br> Festivals ... ... <br> Marriages ... ... <br> Funerals <br> State to what extent the money so spent was borrowed.

(a) If one room is occupied by more than one family the number of men over 18 and of women over 16 and the number, sex and age of children noder these ages, who occupy the room, should be stated.
(6) Expenses on religions and other festivals other than those which are regular in character and are entered on page 7 should be inserted here.

## ADDITIONAL INFORMATION.

Information should be obtained where possible regarding the following :-

1. (a) Nature of work and hours of labour-
(b) Where there are two or more occupations the month of the year during which each is followed should be given-
2. Whether unemployed or not during any part of the year and if so for how long-
3. Any disease from which the members of the family suffer-
4. Any other information bearing on the economic condition. Where the family is indebted the amount originally horrowed, the approximate date and reason for incurring the debt, the security given and the method of repayment should be noted.

## APPENDIX $B$.

## Note about Scales.

In paragraph 28 reference was made to an investigation by Mr. Edgar Sy denstricker and Mr. Willford I. King into population and income in the case of cotton mill workers in South Carolina. In order to classify the population according to their economic status an attempt was made in this investigation to obtain scales showing the relative expenditure on all articles for persons of different age and sex.* Information was obtained from about 300 families of the amounts actually spent for each member of the family on certain articles generally purchased for individual use. By using the data from 140 of these families a curve was drawn for each sex showing the relative expense of obtaining these articles for persons of different ages. A scale was then constructed from each curve.

These articles, however, constituted only about one-third of the family's entire outlay and so the authors proceeded to obtain a similar pair of scales for food. Provisional scales were first adopted which were then "corrected." The method of correction appears to have been as follows: the provisional scales were used to determine the number of unitsin the family and the families were then classified according to income per unit (i.e. total income divided by the number of units). In order to see whether the allowances for females were too large or too small as compared with those for males, the food expenditure per unit (total food expenditure divided by the same number of units) was plotted as an ordinate against the percentage male as an abscissa. This appears to have been done for each income class separately. From the position of the points in the charts deductions were drawn as to the adequacy or otherwise of the allowances for females as compared with those for males. The scales were then corrected accordingly.

Now the food expenditure per unit $=\frac{\text { the total food expenditure }}{\text { the number of units }}$

$$
\begin{aligned}
& =\frac{\text { the total food expenditure }}{\text { the total incomee }} \times \frac{\text { the total income }}{\text { the number of units }} \\
& =\frac{\text { the total food expenditure }}{\text { the total income }} \times \text { the income per unit. }
\end{aligned}
$$

It will be seen from this that since the families were first classified according to income per unit, what was actually being plotted against the percentage of the family male was the ratio of the total food expenditure to the total income. This ratio might perhaps vary slightly according to the percentage male, but no deductions could be drawn from such variations as to the correctness or otherwise of the scales. The scales might indeed be far from correct and yet not cause this ratio to alter appreciably with the percentage of the family male.

The authors also proceeded to test the adjusted scale for correctness as to age relationship in a similar manner. The families were first classified as explained above, i.e. according to income per unit, and in each income class the food expenditure per unit was plotted against the average age of the family. Presumably the average age would vary inversely as the size of the family. From the position of the points in the charts similar deductions were drawn as to the adequacy or otherwise of the allowances for children as compared with those for adults. This method of correction also appears to be open to objection for the reasons given in the preceding paragraph.

[^40]APPENDIX C.
The nulvitive value (as expressed in calories) of some of the more important articles of food.


## APPENDIX D.

Daily Allowances for Asiatic Prisoners.


[^41]APPEN
Statement showing the number of Deck Passengers between the Port of
A.-IMMI

G.B.C.P.O.-No. 1, L.S.B. 8-8-1928-750.

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```


## DIX E.

Rangoon and Ports of India for the five years 1921-1925 inclusive. GRANTS.

| 1923. |  | 1924. |  | 1925. |  | Total of 1921-1925. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Actual number. | Percentage of monthy average. | Actual number. | Percentage of monthy average. | Actual number. | Percentage of monthy average. | Actual number. | Percentage of monthly average. |
| (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 21,747 | - 88.4 | 22,842 | 917 | 20.087 | 83.6 | 110.551 |  |
| 23,248 | 94.5 | 25,351 | 101.8 | 25,509 | 106.2 | 119,081 | 1017 |
| 16,644 | 67.6 | 19,817 | 79\%8 | 19.923 | \$3.0 | 88,324 | 75.4 |
| 17,232 | 70.0 | 19,043 | $70 \cdot 4$ | 17.040 | 709 | 81,385 | 69.5 |
| 17,163 | 69.7 | 21,861 | 878 | 19.147 | $79 \cdot 7$ | 97.265 | 83.1 |
| 19.004 | $77 \cdot 2$ | 23,360 | 93.8 | 19,579 | 81.5 | 99,764 | $85 \%$ |
| 17,356 | $70 \cdot 5$ | 21,033 | 84.4 | 16,248 | 67.6 | 93,778 | +801 |
| 19.415 | 78.9 | 16,209 | 651 | 15,638 | 65.1 | 84,063 | -71.8 |
| 28.118 | 114.3 | 19,276 | 77.4 | 19,291 | 803 | 100,701 | 86.0 |
| 27,324 | 1111 | 24,800 | 99.5 | 25,065 | 104.4 | - 119,212 | 101.8 |
| 37,416 | $152 \cdot 1$ | 42,920 | 172.3 | 56,658 | $235 \cdot 9$ | 215,177 | 183.7 |
| 50,611 | 2057 | 42,352 | 1700 | 34,030 | 141\% | 195,907 | $167 \cdot 3$ |
| 295,278 | ..* | 298,917 | ** | 288,215 | . | 405,20 |  |
| 24,607 | ** | 24,910 | $\cdots$ | 24,018 | ... | 117,101 | $\cdots$ |

GRANTS.



[^0]:    - See his Les onvriers auropdens which is a series af monographs on the badgeta of difierent families.

[^1]:    - According to Mr. Richardson of the International Laboor Office, in none of the important family budget enquiries conducted by public authorities in recent years has there been any serious attempt to obtain 1 representative sample. [Sce page 9 of the Report of the Third Intermational Conference of Labour Statisticians, Studies and Reports Series N (Statistics) No. 12.]

[^2]:     nare, at the last three census dates, 15 years of age and over.

[^3]:    - No representative from India was present at this Conference. Japan appears to have been the only Eastern country which sent representatives.

[^4]:    * For the food and clothing groupe only.

[^5]:    - See The Swedish Family Budget Enquiry of 1923 in the International Labour Review for October 1926.

[^6]:    "This table is the same as Table VI in "Has Poverty Diminished?"

[^7]:    - This:compares with Rs. 52-4-6 for the working clabees in Bombay (see page 16 of the Report on an Enquiry iato Working Class Budgets in Bombay 1923).

    This compares with Rs. 42-5-7' for a man, Rs. 16-11-6 for a woman and Rs. 19-13-5 for a child, in Bombay (see page 10 of the Bombay Report).
    $\ddagger$ See page 14 of the Bombay Report.

[^8]:    * It is interesting to compare these figures with those for Western countries. For instance, in the Swedish Family Budget Enquiry of 1923 about $\mathbf{4 0}$ per cent. of the calories consamed by working class families were of animal origin.
    - The number purchased per month has not been given as the figures would be so small.

[^9]:    - In the Bombay enquiry the average monthly income of single men was Ps. 43-10-3, but these were mostly skilled workmen whereas the Indian workmen in Burma are mainly unskilled (see page 125 of the Bombay Report).

[^10]:    - In the Bombay enquiry as much as 30.4 per cent. of the total expenditare wasspent iy single men on miscellaneous items, the liquor accounting for 10 per cent andi tobacco and betel for another 10 per cent, (see page 127 of the Bombay Report).

[^11]:    See Scientific:Mempirs by Officers of the Medical and Sanitary DDepartments of the Government of India, No. 37-Investigations on Bengal Iail Distariss.

[^12]:    - A bidi is a small amount of tobacco wrapped up in a leat and is slightly smaller than the aize of a cigarette. It is smaked.

[^13]:    * The first attempt in this connection was by the Harvard University Committee of Economic Research which has, since 1919, published monthly an "Index of generals business conditions." This was followed in 1921 by the London and Cambridge Economic Service, in 1922 by the Swedish Board of Trade, and in 1923 by the University of Paris, all of which mow publish similar indices. The United States Department of Commerce also publishes monthly in its Survey of Current Business a series of "business indicators."
    $\dagger$ See "Economic Barometers" Studies and Reports Series N (Statistics) No. 5 of the International Labour Office. See also "The Facts of Industry: the case for Publicity" by a Committee of which Lord Astor and Professor A. L. Bowley were members.

[^14]:    - It is difficult to explain, withoul going into technicalities, the meaning of a normal distribution, i,e, a distribution according to the so-called normal law of error. This law shows how phenomena are distributed about their average when the number of them is very large and when each phenomenon is the resultant of numerons independent factors none of which is of preponderating importance. The main characteristics of such a distribution are that the values are grouped round a central value (the average), about which they are symmetrically placed, and as the deviations from this average gradually increase the number of values gradually decreases. Many distributions of phenomena conform closely to this normal distribution, ege errors of ofserwation; shots at a target. In a perfectly normal distribation the percentage of values falling within any given distance of the average is known exactly, e.g. 68.26 per cent. fall within a distance of the average equal to the standard deviation. In an Approximately normal distribution this percentage is not known exactry, but as it is not likely to differ much from the corresponding percentage for a perfectly normal落tribution, it is nsual to give the standard deviation in such cases as it gives a rough idea of the amount of dispersion.

[^15]:    "If $N$ is the number of points it can be easily shown that the sum of the squares - of the distances from any fixed point is equal to the sum of the squares of the distances from the arithmetic mean pliss $\mathrm{N} d^{2}$, where $d$ is the distance between the arithmetic mean and the fixed point.
    $\dagger$ The arithmetic mean of a distribution is usually represented by $M$ and the standard deviation by the Greek letter $\sigma$ (sigma), In the case of the variable $\mathbf{X}_{3}$ (percentage expenditure on food) $\mathrm{M}_{4}=53.34$ and $\sigma_{4}=5 \cdot 19$.
    $\ddagger$ Between pages 50 and 51.

[^16]:    * This is known as the method of least squares.
    $\dagger$ The standard error in this case is designated $\sigma_{4-1}$. It is the error when $X_{\mathbf{r}}$ is estimated in terms of $X_{1}$. An estimate could also be made of $X_{1}$ in terms of $X_{4}$ and as a rule, a different line of regression would be obtained, since the errors of estimate would be measured parallel to the other axis.
    $\mp$ It is also given by $r_{14}^{2}=1-\frac{\sigma_{1,4}^{2}}{\sigma_{1}^{2}}$ and it can be shown that $r_{14}=\gamma_{44}=\frac{\sum x_{1} x_{4}}{N \sigma_{1} \sigma_{4}}$ where
    $x_{1}$ and $x_{4}$ are the deviations from the respective means and $N$ is the number of pairs. of values, ise., 250 in this case. This last expression is the one usually given for thecoefficient of correlation.

[^17]:    * It can be shown that the standard error cannot exceed the standard deviation.
    $\dagger$ The sign of $r$ is positive or negative according to whether high values of one variable are associated with bigh or low values of the other. Since the percentage expenditure on food decreases as the income increases $r_{\text {a }}$ is negative, namely- $410_{i}$ and the variables are said to be negatively or inversely correlated, as opposed tovariables which are positively or directly correlated. The sign of $\boldsymbol{r}_{41}$ is, of course, the sign of the coefficient of $X_{1}$ in the regression equation $X_{4}=63 \cdot 14-154 X_{r}$.

[^18]:    - This is most easily done by differentiating with respect to $a$ and $b$ and putting the results equal to zero. Two linear equations in $a$ and $b$ are obtained which , sam be easily solved.
    $f$ It will be seen from the regression equation that $X_{4}$ is positively cor related with $X_{1}$ and negatively correlated with $X_{1}$. Since a dependent variable may be tpositively correlated with some independent variables and megatively correlated , with others $R$ is alwiegs given withont sign.

[^19]:    - The probable error is sometimes given instead of the standard error as a measure of reliability. In a normal distribution it is equal to 6745 times the standard deviation, and in such a distribution half the values fall within a distance of the arithmetic mean equal to the probable error, i.e., the chances are even that any particular value wilf differ from the arithmetic mean by an amount greater than the probable error.
    $\dagger$ A partial correlation cocfficient measures the correlation between two variables when one or more other variables are kept constant. For instance, $r_{s, 2}$ measures the correlation between $X_{3}$ and $X_{1}$ when $X_{4}$ is kept constant (the variable kept constant comes after the pointl,

    A fartial regression coefficiant measures the change in one variable caused by a change in another whep one or more ather variables are kept constant. Thus b3ik measures the change in $X_{s}$ caused by a change in $X_{1}$ when $X_{i}$ is kept constant: It is. the coefficient of $\mathbf{X}_{1}$ in an estimate of $\mathbf{X}_{9}$ based on $\mathbf{X}_{1}$ and $\mathbf{X}_{\mathbf{r}}$.

[^20]:    * In W. F. Ogburn's "Analysis of the Standard of Living in the District of Colambia" in the Quarteriy Publication of the American Statistical Asssociation for June 1919 he fonnd that the percentage of expenditure for women's clothing increased most and for children's clothing least.

[^21]:    *When an estimate is based on a curve other than one passing through the means of the columns the corresponding measure of correlation is often called an index of cortciation, and is represented by the Greek letter $\rho$ (rho). $\eta$ may be regarded as a special case of $\rho .7$ of course has no significance unless the curve to which it is applied is given. In fact, each of the measures of correlation, $r, \eta$ and $\rho$, simply measures the adequacy of the line or curve in question to describe the relation: between the two variables. The coefficient of correlation may be small, not because there is no correlation between the iwo variables, but becausea straight line does not adequately express the relation between them. This fact is often overlooked.

    Like $r, \eta$ and $\rho$ are never greater than 1 , but unlike, $r$, they are never negative. It is however possible to determine by an inspection of the correlation table whether the relation between the two variables is direct or inverse or a changing one. It will be-
     $\rho_{4}$ equal $p_{14}$.

[^22]:    * $X_{6}$ actually varied from 10 to 37 for the farmilies included in the enquiry.

[^23]:    - In problems such as this which oover a number of years the time element. usually enters into the problem and has to be reckoned with.

[^24]:    - See Statistical Analysis by Edmund E. Day, Chapter XX, page 328.
    $\dagger$ See pages 7-10 of Bulletin No. 284 of the United States Bureau of Labour Statistics : Inder Numbers of Wholesale Prices in the United States and Foreign Countries, by Wesley C. Mitchell, from which this is taken.

[^25]:    - Some price inder numbers compare prices at the same time at different places. In this Report only index numbers which compare prices at the same placef at different times will be considered although the remariss would probably apply equally well to the other class of index numbers.

[^26]:    *There is another type, namely, ratios of averages, but they are, for all intents and purposes, the same as ratios of aggregates.
    $\dagger$ See paragraph 112 of the supplementary Burmese enquiry for the meaning of a frequency distribution.

[^27]:    - See his "The Making of Index Numbers."
    $\dagger$ See article by Warren M. Persons in the Repien of Ecmomic Statistics for May 1921, pages 103-113; in which he has used the "ideal " inder.

[^28]:    * See page 363 of Statistical Analysis by Edmund E: Day.
    + See article by E. M. Miller and F. J. Cavanaugh on "Price Index of the Nationat Bank of Commerce in New York" in the Journal of the American Statistical Association for Iune 1927.

[^29]:    "Truman L. Kelley in "Certain Properties of Index Numbers" in the Quarterly Publication of the American Statistical Association for September 1921 has suggested $6745 \sigma \sqrt{\frac{1-r}{-2}}$ as a measure of the probable error for an index number which is a ratio of aggregates. $r$ being the coefficient of correlation between the series of index numbers for two random halves into which the series of quotations is divided, and $\sigma$ the mean of the standard deviations of the two sub-series. This formula is based upon certain assumptions including that of random sampling, but if 25 or more per cent. of the possible quotations are utilised material error in the formula is introduced, the true probable error being less than that given by the formula. In the constraction of the cost of living index numbers in this Report the expenditure on the commodities included amount to more than 80 per cent. of the total expenditure.

[^30]:    " $\frac{p_{i}^{\prime}}{p_{0}^{\prime}}{ }^{\prime}$ and $I$ are, of course, expressed as fractions.

[^31]:    - For instance, in the wholesale price index for India compiled by the DirectorGeneral of Commercial Intelligence the base year is 1873. In the year 1920 the price relatives, 39 in number, varied from 61 to 509 . The index number, obtained by taking the simple arithmetic average of the price relatives, is 28 L . Such an index is of little, if any, value. It is understood that its revision is now under consideration. It might be noted that if price relatives had been calculated for 1873 with 1920 as base the simple arithmetic average of these relatives would have been 43 , i.e., the increase in prices between 1873 and 1920 would be propertional to an increase from 43 to 100 , i.e., from 100 to 233. This is very different from the increase given when 1873 was taken as the base year, namely from 100 to 281. It has been shown that a simple arithmetic average of price relatives is equivalent to a ratio of aggregates in which the weights are the quantities that can be bought for a fixed amount al the base date fsee paragraph 147. A change of base therefore changes the weights because the prices of the commodities are not the same at the two dates. The simple geometric average in this case is $\mathbf{2 6 0}$.
    this is the interpretation given by Royal Meeker. See his article on "The possibility of compiling a cost of living inder "in the U.S.A. Monthly Labour Revies for March 1919.

[^32]:    - Cd. 898.

[^33]:    - This is a bad statistical diagram since equal intervals of time have not been represented by equal abscissa, but it will do to illustrate the point here.

[^34]:    * The ratio chatt is extremely useful to business men since the changes in the sales, profits, turnover, costs of materials, wages, etc., can all be entered on one chart and the rate at which each is changing can be seen at a glance. But it is not used to anything like the extent that it ought to be, even in America. For a short description of the ratio chart and some of the uses to which it may be applied reference is invited to "The Ratio Chart in Business" by Percy A. Bivins, published by the Coder Book Company, New York.

[^35]:    - Oniy multiples of 50 bags are takea into account.

[^36]:    
    
    FThe' Eritish India Steam Navigation Company's. rateis. R\$s 1-12es as the
    

[^37]:    The Labour Statistics Bureav, Secretariat.
    Rangoon, 11th May 1928.

[^38]:    stippers.

[^39]:    Notr.-1 viss $=3.60 \mathrm{lbs}$.

[^40]:    - The report appears in the Anerican Journal of Political Economy, Vol. XXIX, 1921, pages $571-594$, but the method of obtaining the scates is given in more detail in the Quarterly Publication of the American Statistical Association for September 1921.

[^41]:    - These articles are to be withheld on the day that fish or beef is issued.
    $\dagger$ Condiments should be issued in the following proportion for every half ounce :-

    | Onions | 3 | drachms | Ginger |
    | :--- | :--- | :--- | :--- |
    | Chillies | 2 | trachm |  |

