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# STANDARD OF LIVING AMONG CHINESE WORKERS.

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#### BIBLIOGRAPHY

It is impossible to enumerate here all the references but the following in the English language may be mentioned as important studies.

Quarterly Journal of Economics, Vol. XXXIII pp. 107-128. The Chinese Economic Monthly, Vol. III p.264, 1926

- L. K. Tao: Livelihood in Peking, 1928, Peiping.
- F. C. H. Lee and T. Chin: Village Families in the Vicinity of Peiping, 1929, Peiping.
- J. L. Buck: Chinese Farm Economy, Chap. X. 1930, Shanghai.
- L. K. Tao and Simon Yang: A Study of the Standard of Living of Working Families in Shanghai, 1930, Peiping.
- The Annals of the American Academy of Political and Social Science. p. 84, Nov. 1930, Philadelphia.

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#### Ι

An extraordinary situation in the world of nations and peoples has been created by the geniuses of invention, discovery and organization in the modern age. The remarkable progress in the means of communication and the unprecedented development of mechanical productive processes, at least in some quarters of the globe, during the last one hundred and fifty years have undoubtedly, for good or ill, drawn the nations much closer day by day and made them more and more interdependent as never before. In spite of national boundaries, high tariff walls, bounties, in short, all the measures that aim at promoting national self-sufficiency on the one hand and lessening the mutuality of national interests on the other, it is evident that no nation can at present escape from this increasing contact and interdependence of nations. Certain goods must go from one country and enter into another while misfortunes that visit one nation must sooner or later have repercussions on the others. Relationships of such an international character are innumerable and extremely intricate and it seems that there is hardly any social or economic problem of the present day that can not be traced to its international aspects. Viewed in this light, it would not be astonishing to find, to take one instance, that the hair net industry of Chefoo, on which the livelihood of thousands of workers depended, was ruined for no other reason than a change of fashion in the distant lands in Europe and America, the adoption of the bobbed hair by women.

In view of what has been said, it seems evidently impossible under the present world conditions for the rest of the world to ignore altogether the living conditions of the Chinese who constitute at least onefifth, or according to some one quarter, of the population of the globe. How Chinese live is not only China's own affair but will have important consequences upon every other nation on the earth that can not be ignored. If it appears that the prevailing standard of living of modern nations is considerably higher than that among the masses of China, it is expected that they can not be contented to remain so for long and must sooner or later attempt by every possible means to approximate the prevailing living level. Nor can she enjoy a life of comfort and plenty in the midst of universal poverty without being interfered with, if the contrary is the case. This, let it be remarked, is not merely a matter of the standard of living, as it would ramify itself and become inextricably involved with a host of significant economic problems, such as international trade, immigration, international finance and production.

Hence some consideration of the standard of living of the Chinese may now be attempted. What follows is intended as a general survey of its present conditions.

Before we proceed, it seems desirable to make a few terms clear. When we study the living conditions of a class or a people, it is customary to ascertain the cost of living or living expenses of an average family. Now the cost of living may mean either It may be the actual cost, as collected of the two things. from a number of families, which represents the average expenses an average family expends in a period of time in order to live, or it may be some standard cost as measured by a purely hypothetical concept of needs and the money cost of supplying them. In fact the two are quite distinct, though they are often used interchangeably with great confusion. To be precise, they should be respectively called the cost of living and the standard of living. In other words, the former refers to conditions as they are, while the latter is to ascertain the conditions as they should be. It should be pointed out once for all that all inquiries into living conditions in

China belong to the first category. That is to say, they are all representations of a "standard of living", not in any theoretical sense or in the form of an ideal that should be striven to attain but as the conditions prevailing for a given time, place and class of labourers. The costs of living revealed by the inquiries may be taken as "standards" in the sense of prevailing conditions.

It may also be pointed out that even the standard of living conceived as a theoretical standard of requirements may be of various kinds. Sometimes it refers to a minimum standard, that is, for the bare maintenance of physical efficiency, below which no family or individual can survive in a humanly possible way, while at other times it means a decent or desirable standard which is found necessary to maintain a healthy and comfortable life. Here again the two standards are not necessarily identical and yet they are very often used without distinction.

According to the traditional division of the subject matter of economics, the question of the standard of living falls under that part of the science known as consumption. The usual procedure of studying the question is to estimate the quantities of staple commodities consumed by the population of the nation, and then ascertain from their quantity or value the per capita consumption. In the absence of complete production and consumption statistics and, what is more important, population census in this country, it has been deemed inadvisable to approach the study by this method. Moreover, per capita consumption obtained by this method does not in any way show the actual standard of living, because of the variance of living conditions in dfferent social classes. Per capita consumption tells us practically nothing about the standard of living of a people.

A more reliable w.v of ascertaining the standard of living of a people appears to be a budgetary inquiry of a nation-wide scope including a sufficient number of families whose economic conditions are more or less similar. Such a nation-wide inquiry of family budgets has not yet been attempted in this country, because the wide extent extent of the territory and the heterogeneous character of the living conditions in it, not to say the cost and difficulty involved in carrying it out, would constitute formidable obstacles to such an undertaking, at least for the present. In such an inquiry, if it is to be conducted, the further question may be raised as to the particular class of people for whom the standard of living is to be investigated. Seeing that living conditions often differ enormously among various social classes, it is evidently important to limit the study to only one or two classes deserving particular attention. As it is the labouring class that constitutes the producers of goods and services supplying the needs of the nation and it is they that are usually inadequately paid and have a low living standard, what is important will therefore be essentially some consderation of the living conditions of the working classes of the country,

Although the working class budgetary inquiry of a nation-wide scope has yet to be made in China, it is nevertheless satisfactory to note for the present that no less than 82 enquiries into the cost or standard of living among Chinese labourers and peasants, each, it is true, being of a local character, have been conducted since 1917 by various persons or institutions. It goes without saying that these inquiries differ from one another in many important respects; not only they were conducted at different times, but the scope, the period of time covered, methods of investigation, computation and analysis and even the use of terms often vary among them. While only a few inquiries were conducted with the painstaking method of keeping daily accounts for the families under investigation, a method which, if carefully used, would, it may be urged, yield accurate and very reliable results, yet many were simply arbitrary estimates for a very limited number of households which may have some practical value but are decidedly inadequate for any accurate measurement of the standard of living. It will thus be seen that the value of the inquiries varies greatly. Nevertheless it may be maintained that the data these inquiries yielded may at least supply us some notion of the living standard of some section of the working population of the country.

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A review of the cost of living inquiries so far conducted in this country may now engage our attention. As tabulated in the Appendix they may appropriately be grouped as urban families, 48, rural urban families, 5, rural families 16 and individuals, 13. Some important results of the first three groups will be summarily presented in the subsequently pages, while the last group, given merely as reference, will not be dealt with in this paper.

First of all, it is of interest to know the average income together with the average cost of living of the working households that were covered by the inquiries. It is necessary to know the average family earnings or income because they are the means whereby the standard of living of the members of a family is maintained or the need of necessaries to which they are accustomed is supplied; and it is the earnings that transform themselves to family expenditure. It has been found that the family earnings in 43 (or about 74 per cent) of the 58 inquiries in which the family earnings were ascertained (or 62 per cent of the total inquiries) fell in the range of \$100 and \$400. And the cost of living in 53 (or about 80 per cent) of the 66 inquiries in which living expenses were ascertained (or 77 per centof the total of inquiries) fell in the same range; in fact one third of the inquiries confined themselves to families with an annual living expenditure of between two to three hundred dollars. If we leave aside the extreme cases, whose average annual income and expenses are exceedingly low or high, it may be presumed that for the majority of the working families the average annual income and living expenses amount to from \$100 to 400 each.

It should be remarked that living expenses just referred to can • hardly be used to judge the standard of living, as the purchasing power of money changes with time and space. They are given here because in the mind of the ordinary person it is the money income and money expenses that are used for comparing living conditions. In terms of the curren y of the United States of America and Great Britain at the present rate of exchange, it is noteworthy, the range of the average annual income and the average annual expenditure of Chinese working families under investigation is incredibly low, being between G.\$25 and G.\$100 or between  $\pounds 5$  and £20. Tn this connection it should be observed that a family with an annual income and an annual expenditure of from \$100 to \$400 in China by no means represents the poorest class, as it still has a narrowly sufficient income to cover its living expenses. There is no doubt that, as is to be shown later, the quality of its living leaves very much to be desired, and compares extremely unfavourably with that of the family of a similar occupation or standing in other countries. But it should be borne in mind that the earnings are in general low throughout all classes in China and to earn a bare livilihood is all the great majority of her population can do. As there must be millions of families which are unable to earn even a bare livelihood, the \$100-\$400 class may therefore rightly claim to rise above the line of poverty and belong to the low income group of the country.

Regarding the geographical distribution of the inquiries, it appears that while many of them were concentrated in Peiping and its environs and in Shanghai—the former claimed 18 and the latter 12, both amounting to more than two-fifths of the total number of inquiries—those devoted to other parts of the country were unhappily few in comparison. On the whole it may be said that while the towns and country districts lying along or within a reasonable distance to the sea board have been fairly well covered by the inquiries, localities in the interior were relatively very much neglected.

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It is evident that tremendous and important local differences must occur in the standard of living in various parts of China. On the one hand climates vary in different latitudes while on the other hand economic resources, such as soil fertility and mineral production together with transportation facilities are very unequally distributed in the country. It is also well-known that the town and the country as a rule offer quite distinct living conditions. Incomplete as the inquiries are as a nation-wide survey, nevertheless a cursory examination of them reveals that on the whole there are decidedly local differences of a prominent kind in the standard of living. Now if we take a higher percentage for food expenses together with a lower percentage for miscellaneous expenses in the total family expenditure as showing a higher standard of living, as in fact it is, then the localities covered by the 48 inquiries into the cost of living of the town labourers may accordingly be roughly divided into three groups, representing three regions, namely, the north, the central and the south. It is found that the food percentage is generally lower in the south than in the north and the central, for which it is about the same, while the miscellaneous percentage is much lower in the north than in the south and the central which approximate each other. On the whole one may conclude that a gradation of the standard of living seems to appear in China in the order of the north, the central and the south. It may be remarked here that as some of the inquiries in the northern region referred to unskilled labourers, and those for the central and south regions were mainly for factory workers, it is inevitable that the results of the former are unfavourable in comparison. Nevertheless it may be contended that the conclusion we have drawn appears to be coincident with and in fact is supported by our usual experiences. There is no gainsaying that on the average the general standard of living is inferior in the north to that in the south in China.

And the same concluson holds true also for the village families. A comparison of the standard of living among the farmers and peasants in different regions is illustrated by a series of surveys made

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by Buck of Nanking University. It is shown that the average of the food percentage for eight surveys in districts in the northern region (namely, in northern Anhwei, Hopei, Honan, and Shansi) which is 62.1 per cent is distinctly higher than the same for five surveys in the central and southern regions (namely, southern Anhwei, Fukien and Kiangsu) which is 53.8 pr cent. The average of the miscellaneous expenses is 13.6 per cent for th former and 20.3 per cent for the latter, which also shows the superiority of the standard of living among the farming population in the south.

When the vocational distribution of the workers included in the various inquiries is considered, it is found that they are heterogeneous in character and may be grouped in a broad way under the following classes: factory workers, handicraft and skilled workers, rickshamen, servants, postmen, and peasants and farmers. It is evident that the selection of the families in various inquiries was not made on a uniform plan and the classification of their vocations was far from being consistent with one another. Consequently no valid generalization can be made with regard to the relation between the vocation and the living conditions of various families. Nevertheless, it is possible for us to find from an examination of the data presented in the appendix that, generally speaking, factory and skilled workers are superior to handicraft workers and coolies, and farmers are superior to agricultural labourers in the cost of living. As the cost of living is not necessarily the same thing as the standard of living, a higher amount in the family expenditure does not therefore always. mean a higher living level.

It is important to examine the distribution of the living expenditure among the working families as disclosed by the various studies. The percentages of the living expenses of the 69 inquiries, classified in the usual manner under the five principal groups of food, clothing, house rent, light and heat and miscellaneous, are shown

· · ·	Number of inquiries				
Percentage group	Food	Clothing	Rent	Light	Miscellaneous
$\begin{array}{c} 0 & 4.9\% \\ 5.0 & 9.9 \\ 10.0 & -14.9 \\ 15.0 & -19.9 \\ 20.0 & -24.9 \\ 25.0 & -29.9 \\ 30.0 & -34.9 \\ 35.0 & -39.9 \\ 40.0 & -44.9 \\ 45.0 & -49.9 \\ 50.0 & -54.9 \\ 55.0 & -59.9 \\ 60.0 & -64.9 \\ 65.0 & -69.9 \\ 70.0 & -74.9 \end{array}$	1 4 8 16 16 12 6 4	13 37 13 3 1 2	17 26 17 6 2 1	6 39 17 7	7 9 15 20 9 8 1
75.0—79.9  Total	2 69	69	69	69	69

Expenditure in Percentages of the 69 Inquiries

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in the following table. It will be found that the percentages for the five principal groups are distributed in the following manner:----

Food: 50%—60% in 40% of the 69 inquiries Clothing: 5%—10% in 54% of the 69 inquiries House Rent: 5%—10% in 38% of the 69 inquiries Light & Heat: 5%—10% in 57% of the 69 inquiries Miscellaneous: 10%—20% in 51% of the 69 inquiries

If the modes of the percentages for the five groups of living expenses among the 69 inquiries are taken, it is found that their distribution is as follows:—

Food:	57.5%
Clothing:	7.5%
House Rent:	7.5%
Light & Heat:	10.0%
Miscellaneous:	17.5%

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These percentages, it should be remarked, represent the prevailing conditions of the distribution of living expenses among the inquiries so far conducted in this country. When a cost of living inquiry of a nationwide scope is conducted, the result might be different to the extent that the food percentage would be still higher and the miscellaneous group percentage still lower.

#### $\mathbf{III}$

Having reviewed briefly the 69 inquiries of the cost of living, let us now examine more closely "the standard of living" of the Chinese working families, as revealed by a few studies. We shall deal in this section with food consumption for which very detailed data are now available, and discuss housing, clothing and other costs in the next one.

Food: It has been shown that food costs more than half of the living expenses of a Chinese family. And of this food expenditure, cereals, that is, rice in the south of the Yangtze and cornflour and millet flour and rarely wheat flour and rice in central and north China, always constitute more than half. The proportion of expenses for various kinds of food among the working families in Shanghai and Peiping has been found as follows:—

Locality	Cereals %	Vegeta- bles %	Fish meat, eggs etc. %	Others %	Average Total food cost per family per year
Shanghai	53.2	10.9	13.2	22.7	\$218.52
Peiping	80.0	9.1	3.2	7.7	\$144.50

It is noteworthy that the proportion of expenses for cereals and other foods among Chinese families as cited above forms a striking contrast to that in the United States. According to the 1900-20 study of the cost of living, by the United States Bureau of Labor Statistics, it was only 95 per cent for cereals and as much as 33.5 per cent for fish and meat; while according to a survey of the farmers standard of living in the United States in 1922-24, it was 27.6 per cent for fish and meat etc. and only 9.8 per cent for rice and flour. On the whole it may be concluded that the main characteristic of the Chinese diet is the superabundance of cereals over all the other classes of food.

It is also interesting to note that the Chinese diet bears resemblances of an important character to that of Japanese and Indians. It appears that the three people, the Japanese, the Indian and the Chinese, all use cice or wheat or some other cereal product as their principal food and other edibles like meat, fish, green vegetables, condiments, as subordinate food or appetizers. Because of the very sparing use of meat as food, the three peoples are usually considered as essentially "vegetarian". At any rate, the expenditure of food among the three peoples is very unequally distributed between cereals and the meat and fish to the advantage of the former.

		Jap	anese			E	Labo Peij	ur in ping		
Classes of food	Tokyo farmer (1915)	Country farmer (1918)	Labourer (1914)	Prisoner (1913-4)	I.abourer Bombay	Labourer in Shanghai (1927-8)	A (1926-7)	B (1927)	Contraction Faiping (1927) Persant in Persont in	Peasant in Peiping (1926)
Percentage ex penditure fo cereals a n products	r d 59.9	61.9	84.6	86.5	59.6	53.2	80.0	86.5	89.0	84.0
Percentage ex penditure fo other foods	- r 40.1	38.1	15.5	18.5	40.4	46.8	20.0	13.5	11.0	16.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	199.9

Percentages of Expenditure for Principal and Subordinate Foods —A Comparison Among the Eastern Countries

A few data of a local nature concerning the percentage distribution of food expenditure from Japanese and Indian and Chinese studies may now be cited for comparison. It is assumed here that the lower is the percentage of cereal expenses in the total food cost, the higher is the standard of living. It will be seen, from the table that both peasants and workers in and around Peking subsisted almost entirely on cereals, which formed from 80 per cent to 89 per cent of food expenses, while Shanghai working families which appear to fare much better in comparison spent only 53.2 per cent of the food expenses on cereals and the remaining 46.8 per cent on subordinate foods. On the other hand, the pre-war living level among Japanese farmers appeared to be appreciably higher than both the workers and peasants in and around Peiping, as their expenses on cereals and their products constituted only 59.7 per cent to 61.9 per cent of the total food cost. The position of the labourer in Bombay in 1921-22 which is simllar to that of Japanese farmer in Tokyo in 1915 is also higher than that of Peiping workers and peasants. On the whole, however, the Shanghai worker whose cereal expenses formed only 53.2 per cent of the total food cost appears to be occupying the best position of all, as far as expenditure on cereals may indicate.

That cereals should constitute such a high percentage in food expenses deserves our attention. It was found that among the 136 items of food articles consumed by Peiping working families, no less than 42 items were cereals or their products. The variety of foods consumed by Shanghai working families appeared to be greater in number, being 340 kind of food articles, of which only about 16 articles definitely belonged to the cereal group. It any generalization may be drawn with regard to the food consumption among the Chinese, it seems that northern Chinese subsist mainly on a greater variety of cereals and their products, including rice, wheat millet, Indian corn, buckwheat, wild oats, sorghum (Kaoliang), while southern Chinese subsist on a greater variety of edibles except rice and wheat of the cereal group; they do not eat at all the other cereals mentioned above, either because they are not grown in the lower latitudes or because they are too coarse for the southern palate. In other words, the Chinese lives principally on cereal plants: rice and wheat in the south and wheat and other varieties of grain in the north.

A study of food consumption involves two aspects, namely, its cost and its nutritive value. The two are not necessarily identical, for it is well known that one may pay high cost for food but get little nourishment from it. Having dealt with the distribution of the food expenditure among Chinese working families, it seems necessary to look into the nutritive aspect of their food consumption. It has been shown, for instance, that by far the greater part of the food expenditure among Chinese working families is spent on cereals and now it would be of interest to examine whether or not such an unbalanced expenditure is reflected on nutrition as well.

The main functions of food, it is well known, are first, to supply heat or energy to the body without which bodily activity would be impossible, second, to build bodily tissues and third, to regulate bodily processes. These functions involve reactions which are determined by the chemical composition and constitution of food. Any food that takes part in any of the functional processes just mentioned would have nutritive value and become a nutrient. As it would be beyond our task to discuss in detail the chemical emposition and constitution of the food consumed by the working families, we shall only consider the three nutrients, namely the carbohydrates, fats and proteins, of the food and their fuel value in calories, for which data are now found available. All the three nutrients of the food serve as fuel to yield the energy required for the activities of the body while the proteins in particular serve also to help grow bodily tissue.

It has been found from an analysis of the various kinds of food consumed by Chinese working families in Shanghai, and Peiping that their respective values per equivalent adult per day are as follows:

	Proteins	Fats	Carbo- hvdrates	Fuel value
Shanghai	(grams) 88.09	(grams) 48.52	(grams) 531.01	(calories) 2913.41
Peiping	75.88	29.61	505.27	2595.14

It may be asked whether these values for Chinese workers and peasants are sufficient. To answer the question, we must first of all know the standard requirement of nutrients for an average person. Now the energy required in the bodily system of a person of course varies with his or her age, sex, condition of health, height and weight, kind of activities or occupations and so on. As to what dietary standard in terms of nutrients ought to be for an average adult, even specialists often differ. It seems, however, that 3,000 calories per adult per day or 100 grams of protein, 60 grams of fat and 500 grams of carbohydrates, per adult per day may be taken as the standard requirements. Judged by this standard, workers of both Peiping and Shanghai, one finds, are short of fuel value in their daily rations by calories, though the latter is not very far from meeting the standard. One finds further that protein is 25 per cent below the standard among the Peiping working families and 12 per cent below the standard among Shanghai families; fat is 40 per cent below the standard among the former and almost 12 per cent below the standard among the latter. In both cases, however, carbohydrates are higher in quantity than the standard requirements allow. This reflects well the disproportionately high cost of cereals in food expenses as shown in the foregoing pages.

Food consumption conditions in country districts appear to be also below the standard requirements. As the variety in the diets of farming families is usually very restricted, it is of necessity that a few articles are consumed in large quantities. It has been reported that the articles supplying ten per cent or more of the total food energy are, according to localities, only kaoliang, wheat, millet, corn, beans or peas, sweet potatoes and rice. But in rice growing districts, as a rule, rice supplies 75 per cent of the food energy. The sources of food energy in farming families, as found from a study of 1070 farm households in six localities in four provinces, are mainly derived from cereals and leguminous products, chiefly beans. It appears that the former constitute about 70 per cent and the latter about 15 per cent of the total energy for all foods. A comparison of the percentages of the sources of food energy for families in China and in the United States shows clearly the inferiority of the diet of the former.

1070 farm households in Ching	124 representative urban and rural dietaries for a period of several years, U.S.A.
89.8%	38.7%
1.0%	39.2%
8.9%	9.0%
0.2%	10.1%
0.1%	3.0%
	1070 farm households in China 89.8% 1.0% 8.9% 0.2% 0.1%

It will be observed from the above that as compared with only twofifths in the United States, about nine-tenths of food energy in Chinese family households is from seeds and their products. Further, the Chinese farmer receives only one per cent of food energy from animal products as against the American farmer's 39 per cent; while his consumption of fruits is hardly noticeable, being only one-thirtieth of that of the American farmer, his consumption of sugar is but one-fiftieth of the latter. The food energy derived from vegetables and roots, however, is nearly the same for both groups.

Regarding the fuel value, it is found that it amounts on the average to 3461 calories per adult per day in the Chinese farming families, ranging between 2176 to 4559 calories. It may perhaps be said that on the whole the fuel requirement of the Chinese farmer is sufficiently supplied. It is further found that the food energy from protein amounts to 113 grams per adult per day, which is 12.7 per cent of total food energy and is compared favourably with the accepted standard of 10.15 per cent. To sum up, it appears that in calories and protein, the mill workers in Shanghai and the farmers in six localities are either almost sufficient or abundant, while the workers in Peiping are sorely deficient. Whereas the carbohydrate is about sufficient for the Peiping group, it is over-abundant for the Shanghai group. Fats are insufficient for both groups, in particular more so for the former. The nutrition of the Chinese worker and farmer so far as our limited data go, may be said to be on the whole inadequate.

A closer investigation into the Chinese diet, reveals mose of its shortcomings. For instance, the quality of the proteins in the Chinese diet, it has been maintained, is decidedly inferior. Taking quality into consideration, "what is a moderate allowance in the American diet becomes a bare minimum in the Chinese diet". This contention is supported by the fact that the coefficient of digestibility is much lower with cereals and legumes than with animal foods, in particular when the former two form the bulk of the diet. Only about 80 per cent, it appears, of the intake of proteins of a plant origin is available for nutrition. Looked at in this light, it is evident that the Chinese diet, even though it meets standard requirements, has still little margin of safety with regard to the protein factor.

Another remark that may be made here is that apart from the insufficient quantity of vegetables and fruits consumed by Chinese, there are lacking entirely in the Chinese diet, dairy products, such as milk, butter and cheese, which are most valuable in supplying the important mineral of calcium for bodily growth. The adequacy of calcium in the Chinese diet owing to the absence of dairy products has been seriously questioned.

With regard to vitamins, it has been stated that as the quantity of green vegetables that enter into the Chinese diet is hardly as much as that in the American diet, the supply of vitamin A is therefore very much reduced in proportion to the total food. It is consequently doubtful whether the vitamin factor in the Chinese diet is sufficient. It has also been stated that in view of the sparing use of eggs, the whole wheat and the less polished rice which are all important sources of vitamin B, there is every reason to believe that the Chinese diet is deficient in vitamin B.

We have dealt at some length on food consumption of Chinese workers and farmers because the dietary, more than any other necessaries of life, is of fundamental importance to their health and wellbeing. It has been shown that Chinese diet is inadequate in many respects; at best it represents only the minimum of subsistence, below which the health of the worker and the farmer would be undermined. It is necessary to bear in mind that what a human being requires is not merely a minimum of subsistence, for in order to carry on the various activities modern life demands in pursuing one's occupation and in performing duties of citizenship, something more than simple living must be needed. It has been well said that the goal of nutrition is not the minimum but the optimum, for while the minimum "suffices to maintain and propagate the race after a fashion, it is only the optimum which makes progress". And this optimum of life's essentials demands an ample margin of safety in dietaries for all the nutritive requirements.

#### IV

Housing. Next in importance to food is shelter which must now receive our consideration. An examination of Appendix II shows that the percentage for house rent in the total expenditure varies greatly in various inquiries, ranging from 4 percent to 16 percent of the total family expenditure. While it seems impossible to make any generalization regarding house rent, it may perhaps be asserted that it is considerably lower in country districts than in towns and that it frequently happens that houses occupied by farmers are owned by them and are not paid any rents. On the other hand, there is no doubt that the construction of houses in the villages is often poorly done; proper ventitation and light in the buildings are usually unprovided for. On the plains in north China, owing to the absence of stones for building purposes and also the scarcity of bricks and tiles which are too expensive for poor peasants to make use of earth-walled houses prevail, which would soon collapse in case of floods and storms lasting several days. Apart from the frail character of the dwellings of Chinese peasants, it may also be said that they are as rule unfit for habitation in respect of health and cleanliness. While advancement in education among peasants would undoubtedly improve their mode of living in the housing conditions, as has been suggested by some, it seems certain however that economic progress, in particular increase of their family earnings, must precede any such improvement.

Turning to urban workers, one finds among them, as their class in other lands, the pressing problem of over crowding. If congestion happens equally in the villages, it seems that at least it is not so very harmful to them as they usually lead an open air life in the fields in most of the time in the year. In towns, however, the workers are often compelled to crowd themselves in the tiny rooms for which are charged very high rentals. Taking into consideration the few inquiries which give some detailed information regarding housing conditions, one finds the following figures for the number of persons and of equivalent adults per room very illuminating. Each room, it may be added, measures variously from 40 to 120 sq. ft.

	Average number of	Average number of per- sons per room		
Locality	rooms per family	Persons	equivalent adults	
Peiping handicraft workers and coolies	1.04	4.16	3.04	
Shanghai cotton mill workers	1.42	8.29	2.59	
Tangku factory workers	1.72	2.67	2.03	
Peiping skilled workers	1.56	2.49	1.96	
Peiping farmers	6.38	0.85	0.64	

It will be seen from the foregoing table that handicraft workers and rickshamen of Peiping live in very crowded conditions, having 4.16 persons or 3.04 equivalent adults per room. Shanghai factory workers appear to be slightly better than Peiping handicaft workers and rickshamen, with 3.29 persons or 2.59 equivalent adults per room but in this connection it should be remembered that the Shanghai workers under investigation all lived in houses provided by factory proprietors, the rental of which is considerably lower than the usual prevailing rate charged by landlords making a living on rents. It may be seen that factory workers in Tangku and skilled artisans in Peking go up much higher in scale in their housing conditions, both having about two equivalent adults to a room. But it is noteworthy that the urban rural families have ample housing accomodation, as they have less than one person to a room.

One interesting observation may now be made regarding the housing conditions of urban working families. It might be supposed that with the rise of the family income, there must be an increase of rooms per family and a corresponding decrease of the number of persons or equivalent adults per room in the family. In other words, it is expected that an improvement in economic conditions in a family must be accompanied by a similar result in housing conditions. This, however, has been found to be not necessarily true according to the inquiries into the working families in Shanghai, Peiping and Tangku. It appears from the inquiries that although the number of rooms per family increases in the higher income groups, yet the number of persons or equivalent adults per room in that group does not decrease. In short, it is found that within a certain income level the congested condition of living is by no means improved by an increase of the family income, owing to a simultaneous growth of the size of the family. This seems to suggest that while an increases of members in a family brings in a bigger income, its standard of living is not necessarily improved.

Judged by either of the two standards, the official standard of the Ministry of Labour of the United Kingdom which defined overcrowding as more than two persons per room or the standard adopted by Professor A. L. Bowley in this study of English industrial towns which is more than one equivalent adult per room, all the Chinese working families cited in the above are living in overcrowded conditions. If these standards are criticised as ideal, at least, too ideal for Chinese conditions, it may be observed that at any rate housing conditions are found to be much better in other countries than in China. Whereas in none of the Chinese urban working families under discussion are there two rooms per family on the average, there were for instance, two rooms per family in France and Belgium, three rooms per family in Germany and four or five rooms in England and Wales, and the United States. In the case of the United States it has been found according to a cost of living inquiry published by the Bureau of Labor Statistics that as the average size of the working class family was five persons or 3 to 3.5 equivalent adults, there was one person or less than one equivalent adult to a room; this is in fact higher than either of the two standards referred to.

If such a comparison of housing conditions of labouring classes between China and western nations be considered unfair, we may perhaps take India. According to a study of the working class housing conditions in Parcel in Bombay in 1917-1918, it appears that a little more than 60 per cent of the families under investigation according to the British official standard or 94 per cent of the families according to Prof. Bowley's standard could be considered as overcrowded. Thus, the housing conditions of Bombay working families of even more than a decade ago were superior to those of Shanghai workers.

Overcrowding has become a most serious problem in China, but this is particularly true in a city like Shanghai. In view of the soaring land values and the constant increase of population in that town, working families have little chance of getting proper housing accommodation, unless authorities take care of them. Under present circumstances it seems that there is no limit to which overcrowding of working families may not go. Instances are not at all rare where two and occasionally more than two families occupy one room. In this case people of different sexes of all ages to the number of seven or eight may actually huddle together in a small room of 120 sq. ft. This is, however, not the worst kind of worker's dwellings, for it is not infrequently found that lowly paid workers can only afford to live in shacks of straw and bamboo built closely with hardly any moving space and in most undesirable surroundings.

It must be remarked that even the workers who live in brick built houses, can have neither privacy nor comfort; in short, there is no family life worth having. The house the Chinese working family occupies has none of its traditional functions, for rest and comfort, for the enjoyment of privacy, for family gathering or the intimate communion of friends; it has none of these things but a place for sleep and there is often not sufficient space or accommodation even for that. The effects which such overcrowding conditions bring to the family members cannot be exaggerated. Squalor, disease. immorality and crime are but inevitable. It would be strange indeed, if a person could still live a healthy and moral life under such conditios. Among the many factos that contribute to the vices and crimes of Shanghai, for which it has become notorious, bad housing conditions must be considered an important one. It is significant that the International Settlement which has always boasted of its enlightened administration, has never concerned itself with the housing problem of the poor and the working classes who live in enormous numbers under its "jurisdiction." While long dissertations supported by statistics and documents may be produced in defence of the status of the International Settlement, looked at from the viewpoint of business and landed interests of the capitalist class of all nationalities, the Chinese workers and the lower middle classes certainly repudiate them, in view of the shameful neglect they suffer. It has been rightly criticised that while millions of dollars are spent annually in Shanghai for stock promotions, the construction of palatial hotels, clubs and office buildings, and widening of streets for the comfort and pleasure of its automobile population, not even a few hundred dollars

are appropriated for housing the workers who come to Shanghai and contribute their labor toward the wealth of the city. One cannot help speculating for how long this city of capitalist interests will remain secure, when its municipal adminstration even in this age disregards entirely the welfare of the working population.

*Clothing.* Clothing expenditure figures inconspicuously in the total cost of living of Chinese working families, being only as low as 2.1 per cent in one inquiry but ranging between 5 per cent and 10 per cent for about one half of the groups investigated. It seems that clothing expenses in the working families occupy as a rule around 10 per cent of their total living expenditure and only rarely more than 20 per cent.

Taking into consideration the inquiries in Peiping and Shanghai, for which details on clothing are available, it is found that among the families of the former the average amount spent for clothing in a year was fourteen dollars, that is 6.8 per cent. of the total average expenses per family. The sum is truly insignificant, as it is only about three gold dollars or fourteen shillings at the present rate of exchange. That clothing forms only an inconsequential part of the living of working families may be further shown by the inventory of articles made for the 48 working families in Peiping. It is found from the inventory that the garments in the possession of the 48 families were valued at the average amount of \$23.72 per family, the average amount for the lowest income group being only \$6.83 and the same for the highest income group being \$58.85. Thus, the average amount of \$23.72 represents the value of all in the wardrobe of a family of 4.6 membrs. That such a scanty wardrobe should be sufficient fully demonstrates not so much negligence of clothing among such families as their straitened circumstances. It is evident that clothing economy among Chinese working families must have its limits; however, low may be their clothing expenditure, the members can not possibly go about unclad or so ill-clad as to be unbecoming to their station in life. The low expenditure does not mean that clothing is dispensed with; it shows rather that it is poor in quality and small in quantity, and that it is either refitted or bought very cheaply at second hand.

Turning to the Shanghai workers under investigation, one finds a decided improvement upon that of the Peiping workers. Their average expense for clothing amounted to \$36.70 per family in the year, which is more than two and a half times that of the Peiping workers. The position of the Shanghai workers in respect to clothing may be supposed as the best in China since the inhabitants of that great metropolis are reputed to have a love for dress. It is therefore the more noteworthy, that their clothing expenses are far from being excessive.

In fact the average annual expenditure here stated may be much still less actually, if we follow the method of ascertaining the expenditure on clothing by dividing the total expenditure on each article of clothing by its estimated duration.

Among the village families clothing constitutes 7.3 per cent of the total family expenditure. But it is remarkable that in spite of climatic conditions it is found that it is lower in north China, than in east central China, the percentages for two regions being 6.4 and 8.6 respectively. This does not mean that northern Chinese require less clothing, as the contrary would be true, but shows that they are economically inferior.

Fuel and Light. In the fourth principal group of the cost of living, fuel and light, expenditure on fuel often differs greatly in various localities owing to climate conditions and the access to fuel materials. For instance, heating of rooms is a necessity in Peiping whereas it is rarely used, at least among working families, in Shanghai; consequently much of the fuel expenditure is saved by the latter. The price of fuel is also an important consideration, as it is known, for instance, that a ton of coal may be bought near the coalfield at one dollar but ten or even twenty times that sum in distant parts. In

the country districts in the north, the fuel question is often solved by using the hay, stalks from various crops and wood in the hills collected from fields. It is not an uncommon sight in autumn and winter in the country to see children in their teens with a basket on the back gathering stray stalks and hay on the highways and walking paths to replenish the scanty stock of fuel materials at home. At any rate, it may be said that fuel constitutes a much less important item in the village than in urban families.

It has been found that more than 10 per cent of the total average expenditure in Peiping families was for fuel and light. About 67 per cent of the expenditure was taken up by coal balls made of coal dust and earth, which form the most important fuel in Peiping.

Among the Shanghai workers it has been found that fuel and light formed only 7.5 per cent of the total cost of living. It is interesting to point out here that the consumption of firewood, which takes the place of coal fuel in Shanghai and kerosene, which is mainly for lighting, among the Shanghai workers, is similar in quantity to that among working households in Bombay.

Miscellaneous Expenses.—The miscellaneous group of expenditures formed only 3.1 per cent in the total cost of living among the Peiping workers and 20.6 per cent among the Shanghai workers. Apparently the latter have a much higher standard of living than the former in view of their high percentage of miscellaneous expenses. A closer examination of the numerous items of expense in the group shows, however, that it still leaves very much to be desired. It is important to distinguish the miscellaneous group of expenses into necessities, such as communication, and sanitary and medical expense, without which even the minimum of subsistence level cannot be maintained, and cultural and social needs, such as education, amusements and social entertainments which man as a social creature must satisfy. It will be seen that of the social and cultural expenses among the Shanghai workers, education, including tuition fees, books, newspapers and stationery and amusements, including movies and theatricals, were respectively only 77 cents and one dollar in the year. Thus, even if the expenditure among the Shanghai workers is considered barely enough for necessities, it is evident that it is far from adequate for social and cultural needs.

In this and the foregoing section the standard of living of the Chinese workers and peasants has been considered somewhat in detail from the standpoint of the consumption of commodities their cost of living paid for. The cost of living as disclosed by various inquiries, it may be pointed out here, refers only to a particular time and place, representing a static phenomenon. What is of interest and significance seems to be to find out the changes in the cost of living from time to time. Taking the cost of living of a certain class at a particular time and place as representing the living conditions as they are, we shall have to ascertain how it changes in course of time. For this purpose cost of living index 'numbers are 'usually constructed.' As the cost of living is based on a series of prices, which are the money value of commodities and represent its general purchasing power, its changes may therefore be measured by changes in the prices of the important commodities and services included in the cost of living. At present, such index numbers based on the price data collected by careful inquiries are constructed every month in Shanghai, Peiping and Tientsin. Briefly stated the cost of living inder numbers for the last five years 1926-30, which are given below, show that there has been a rise of about 20 per cent in the period in all the three localities. This means that the working family, if it is to maintain its standard of living as is represented by its cost of living, has to spend twenty per cent more than it used to. Thus unless there is a corresponding increase in its income, its standard of living is likely to go down by lowering its consumption in quantity or quality.

	Shanghai	Peiping	Tientsin
	(1926 = 100)	(1927=100)	(1926=100)
1926	100.0	91.5	100.0
1927	106.7	100.0	108.4
1928	102.5	102.5	114.2
1929	107.9	112.5	117.5
1930	121.4	115.8	120.5

V

The foregoing pages, it is hoped, will suffice as a general survey of the prevailing standard of living of the labouring classes in China today. There is no need for us to state here that the standard at its best only approaches that of a bare subsistence. It has been shown that it is low in consideration of the high percentage for food and low percentage for miscellaneous items in the total expenditures. It has also been shown that the food consumption of the workers is insufficient in many ways, their housing is worse than inadequate; their clothing and sanitation as revealed by the expenses for the two groups are reduced to a minimum and the expenditure for culture or per-, sonal improvement is practically nil. It thus appears that the life of the Chinese worker is limited only to a bare physical existence.

Bad as the Chinese worker's life is, it must be remembered that there are still millions of people in the country whose lot is even worse. If warfare during the last two decades has devastated vast areas in the country, natural catastrophes such as drought, floods, earthquakes and typhoons must have brought us havoes of a much greater scope and intensity. And the recent flood of the Yangtse River and its tributaries, which is said to be the severest of its kind for over a century, is but a culmination of the cruelties of nature. During these catastrophes millions must have died of hunger and disease, while many more who manage to survive must have been deprived of homes, fields or whatever estate they happen to possess. In view of this, sarcastic though it sounds, famine relief has actually become a permanently established institution in this land, indispensable to the welfare of millions. It seems therefore that both nature and man in this country have in recent years combined to work up a deadly plot against its population, denying them everything that a life requires. And the pity is that the population, in spite of its huge numbers, seems to have been helpless before these formidable forces of destruction.

It would be beyond the scope of this paper to probe into the causes of the social and natural calamities. The important question is what should we do with them. In other words, what under such circumstances is needed for ameliorating the miserable living conditions of our population? This is indeed a big question to ask and in view of the complex implications of the problem, it is certainly unwise to offer remedial measures of a simple nature. Now the low standard of living among the Chinese is no doubt merely a reflection of the under-production of As regards under-production, either the people. of two courses may be 'followed' to remain contented with the low standard or to increase production. The former is evidently impossible in view of the changed conditions of modern life which demands the satisfaction of material wants. asceticism of mediaeval monks being entirely out of fashion now, and more particularly in view of the fact that what Chinese suffer now is not a low living standard but often a lack of it. Thus the latter alone remains as an alternative.

Now it seems that either of two policies may be adopted with a view to increasing production. One is the laissez faire policy tempered by a certain amount of state direction and intervention, as has been more or less followed by all the industrial nations. This must be a very slow process and it is doubtful if it would ever work satisfactorily under China's present conditions. The other policy is evidently some kind of state economic planning executed with vigour. In this connection it may be suggested that recent Russian experiences are at least instructive in respect of the production of sufficient basic necessaries of life for the population. One economist who has made a thorough study of the economic life in Russia, offers the following significant remark on her industrial organization.

"One cannot escape the conclusion that the present organizational form is adequate for carrying on the processes of large-scale mass production to the extent necessary for the provision of the basic items which make up the modern labourers' standard of living."<sup>(1)</sup>

It is not our purpose here to applaud what Russia has achieved so far but what is suggested is merely that in order to promote without waste and in the shortest time possible the industrial and economic development of this country that would contribute to welfare of the population as a whole, some kind of planned economy undertaken by an efficient state organization appears to be highly advisable.

<sup>(1)</sup> Hoover, The Economic Life of Soviet Russia p. 42.

#### APPENDIX

#### COST OF LIVING STUDIES, IN CHINA

1

#### Table 1.

No.	Locality	Investigator	Year
	, A.	Urban Working Families	
1.	Peining	Gamble, S. D.	1924
2.	Liaoning	South Manchurian Rly. Co. (S.M.R.)	1925 - 6
3.	Shanghai	Chu, M. T.	1926
4.	Shanghai	Chu, M. T.	1926
5.	Shanghai	Sokolsky, G. E.	1926
6.	Shanghai	Sokolsky, G. E.	1926
7.	Peiping	Institute of Social Research (I.S.R.)	1926
8.	Peiping	Institute of Social Research (I.S.R.)	1926-7
9.	Peiping	Institute of Social Research (I.S.R.)	1927–8
10.	Peiping	Gamble, S. D.	1927
11.	Tangku, Hopei	Institute of Social Research (I.S.R.)	1927
12.	Shanghai	Institute of Social Research (I.S.R.) & Bureau of Markets	1927-8
13.	Tientsin	Institute of Social Research (I.S.R.) & Nankai University	1928
14.	Shanghai	Fan Fu-an	1929
15.	Shanghai	Fan Fu-an	1929
16.	Shanghai	Fan Fu-an	1929
17.	Shanghai	Lamson	1929
18.	Nanking	Bureau of Social Affairs, Nanking	1929-30
19.	Shanghai	Ministry of Industry, Commerce &	1930
20.	Soochow	Labour " "	1930
21.	Wusih	12 33 25	1930
22.	Wuchin	33 37 33	1930
23.	Chinkiang	77 <u>77</u> 77	1000
24.	Kiangtu –	22 27 27	1000
25.	Nantungchow	13 23 39	1020
26.	Ihing	37 23 37	1020
27.	Nanking	22 22 22 22 22 22 22 22 22 22 22 22 22	1930
28.	Wuhing	1) 1) II	1930
29.	Hangchow	19 TE EE	1930
30.	Kashing	11 11 11 III	1930
31.	Anking	22 29 29	1930
82.	Wuhu	17 11 11	1930
33.	Pengpu	79 37 39	1930
34.	Nanchang	17 17 <u>39</u>	1930
35.	Kiukiang	n n n	1930
36.	Hankow	22 EE EE	1930
37.	Hanyang	59 59 77 	1930
38.	Wuchang	22 22 22 22 22 22 22 22 22 22 22 22 22	

No.	Locality	Investigat	or		Year
39.	Taveh				1930
40.	Tsingtao		"	"	1930
41.	Canton	"	"	"	1930
42.	Fatshan	"	"	"	1930
43.	Chaoan	"	<i>"</i>	**	1930
44.	Swatow	"		"	1930
45.	Wuchow	"	<i>"</i>	,,	1930
46.	Foochow	<i>"</i>	,,,	,,	1930
47.	Amoy	<i>"</i>			1930
48.	Santuao	**	"	,,	1930
	$B, R_1$	ural Urban Fan	nilies		
49.	West Suburb, Pei-	Dittmer, C. G.			1917
50	ping Changfu Paining	Chan Ta			1022
51	Hunich Anhuci	Chen, Ta			1022
52	Tsing Hus Vuan	Chen, Ta			1923
02.	Peining Hua Huan,	Chen, 1a			1344
53.	Wua-cha-t'un, Pei- ping	Institute of Soc	ial Rese	arch (I.S.R.)	1926
·	C.	Farm Familie	8		
54.	Hwaiyuan, Anhwei	Buck J L			1924
55.	Suhsien. Anhwei	Duch, <b>0</b> , D,			1923
56.	Pingsiangg, Hopei	*			1923
57.	Yenshan, Hopei	"			1922
58.	Yenshan, Hopei	"			1923
59.	Sincheng, Honan	"			1923
60.	Kaifeng, Honan	*			1922
61.	Wutai, Shansi	"			1922
62.	Laian, Anhwei	"			1922
63.	Lienkiang, Fukien	**			1923
64.	Chun - hwa - chen,	**			1923
65.	Nanking Tainingmen Nan-	••			
	king				1924
66.	Wuchin, Kiangsu	"			
67.	Liaoning	South Manchur	ian Riv.	Co. (S.M.R.)	1925
68.	Dairen	South Manchur	ian Rlv	Co. (S.M.R.)	1926
69.	West Suburb, Pei- ping	Institute of Soc	cial Rese	earch (I.S.R.)	1927
	<b>D.</b>	Individual Work	cers		
70.	Tsing Hua Univ. Peiping	Dittmer, C. G.		•	1918
71.	Peiping	Morrow, L		•_	1922-
72.	Peiping	Morrow, L.			1922_
73.	Tsing Hua Univ. Peiping	Chen, Ta			1923

No.	Locality	Investigator	Year
74.	Shanghai	Chu. M. T.	1923
75.	Shanghai	Chu. M. T.	1923
76.	Peiping	Gamble, S. D.	1924
77.	Tsing Hua Yuan, Peiping	Chen, Ta	1924
78.	Haitien. Peiping	Chen. Ta	1924
79.	Liaoning	South Manchurian Rlv. Co. (S.M.R.)	1925-6
80.	Tangku Honei	Institute of Social Research (I.S.R.)	1927
81.	Tangku Honei	Institute of Social Research (I.S.R.)	1927
82.	Yenching Univ., Peining	Sung, T. M.	<u> </u>

Ta	Ы	е	2
_	_	-	_

No.	Type of Workers	No. of families or persons	Family size	No. of adult equivalents per family
	A. Urban Working	Families		•
1	Pielehaman	100		*
9	Fosterry workers	*	5.73	*
2	Clailled workers	*	5.00	*
3 1	Unabilled membran	*	5.00	. 🛊 '
т к	Cotton mill menken	ì	4.00	<u> </u>
e e	Cotton mill worker	1	2.00	
8	Used in the second seco	500	A 44	3.32
6	Handicrait workers	48	4 58	3.38
â	Daisleland and the state	177	4.00	3.89
10	Bricklayers, carpenters, etc.	119	<u>4</u> 10	2.90
11	Handicraft workers, rickshamen, etc.	61	3 72	2.74
10	Salt rennery workers	230	4 76	3.78
12	Cotton mill workers	100		3.70
13	Hose sewer & crotchet knitters	100	<u>/ 11</u>	* •
14	ractory workers	100	A 19	*
15	Printers	100	5.20	*
10	Postmen	00	1.69	3 43
17	Factory workers	21 65	4.02	*
18	Factory workers, salesmen, etc.	900	4.00	4 50
19	Factory workers	000		3 20
20		150	_	3 70
21	JJ * *********************************	109	_	3 40
ZZ	<b>39 * * * * * * * * * * * * * * * *</b> *	40		3.00
23	32	10		210
24 25	<b>3</b> 7 <b>· · · · · · · · · · · · · · · · · · ·</b>	01		3.30
26 ·	<b>39 ••••••••••••••</b>	19		2.70
26 .	<b>39</b>	10	_	3.70
27		00	_	0114

No.	Type of Workers	No. of families or persons	Family size	No. of adult equivalents per family
28		84		3.10
29		45	_	2.90
30		8		3.90
31		192		3.30
32	<i>"</i>	3	<del></del>	4.00
33	** *********	2	<u> </u>	3.10
34		7	_	5.30
35		15	<b></b> ·	3.20
36	**	34	_	3.50
37	**********	25		3.40
37		119		3.60
39	<i>"</i>	14	_	4.70
40		8		4.60
41	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	199		2.88
42	<i>"</i>	49		3.20
43		2		5.50
44		44	_	3.90
45	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	13	—	8.90
46		136	<del></del>	3.00
47		1	_	3.40
48	······································	$\overline{2}$	<del></del>	8.60
	B. Rural Urban F	amilies		
49	Villager	195	4.20	•
50		91	4.90	. 🔹
51	···	56	4.40	*
52	Rickshamen	36	5.17	*
53	Villager	100	8.52	2.73
	C. Farm Famili	88		
54	Farmers	124	5.20	4.00
55		286	6.74	5.20
56		152	4.44	3.40
57		150	5.35	4.10
58		133	5.17	8.90
59		144	6.97	5.40
60		149	7.83	5,70
61		226	4.51	3,40
62	······································	100	5.72	4.50
63		161	5.02	8.90
64		203	5.77	4.30
65		217	6.57	4.80
66		300	4.87	8.70
67		10	9 00	<u> </u>
69	······································	10	15.00	_
vo		v		
69		64	5.44	4 09

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No.	Type of Workers	No. of families or persons	Family size	No. of adult equivalents per family
	D. Individual Wo	rkers		
70	Janitors & Servants	93	_	
71	Factory Workers	200		_
72	Factory Workers	77	_	<b>-</b>
78	Janitors & Servants	141	—	—
74	Skilled Workers	÷		
10	Unskilled Workers		—	—
77	Ricksnamen	1,000	<del></del>	
70	»»		—	—
70 .	Bootener Miceley	121		-
20	Salt D. Coursers			—
21	Alleoli The store Workers	86		—
00	Alkan Factory Workers	50	—	—
02	*Not reported.	72	<del></del>	<u> </u>

Та	ble	3
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		AMOU	NT OF EXP	ENDITURE		
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total
		A. Ur	ban Workin	g Families		
	\$	\$	\$	\$	\$	\$
1.	128.28	8.52	13.68	15.36	5.16	171.00
2.	*224.76	*70.56	* 8.28	*43.08	*53.04	*399.72
3.	180.72	46.80	60.24	30.12	111.84	430.20
4.	133.20	25.56	33.36	23.04	40.92	256.08
5.	162.00	24.00	24.00	18.00	24.00	252.00
6.	120.00	12.00	18.00	18.00	12.00	180.00
7.	101.03	6.52	18.72	22.22	16.29	164.78
8.	144.50	13.88	15.26	22.96	6.32	202.90
9.	148.04	27.19	30.57	19.93	37.40	263.13
10.	122.64	9.84	19.80	24.96	33.72	210.96
11.	122.73	20.95	15.65	17.77	43,27	220.35
12.	218.52	36.72	25.08	29.40	80.40	390.00
18.	162.02	21.02	46.22	10.46	48.44	288.16
14.	263.46	41.39	30.85	8.84	117.26	461.80
15.	242.06	23.22	17.74	11.93	79.56	374.51
16.	351.82	20.87	51.90	13.33	136.12	574.04
17.	351.82	20.87	51.90	13.33	136.12	574.04
17.	271.60	70.11	46.74	27.36	59.39	475.20
18.	263.28	23.16	44.52	36.48	107.52	474.96

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		. AMOUN	T OF EXP	ENDITURE		
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total
19.	207.36	27.72	33.12	26.76	69.96	364.92
20.	159.72	19.08	25.92	26.40	64.44	295.56
21.	183.00	35.52	26.04	28.44	100.56	373.68
<b>22.</b> ·	138.00	27.72	21.60	33.60	43.32	264.24
23.	202.80	18.24	35.16	19.80	52.32	328.32
24.	168.00	24.96	3.96	18.00	3.96	218.88
25.	193.32	21.72	18.60	21.96	42.96	298.68
26.	97.08	13.44	10.68	18.00	22.32	161.64
27.	264.60	8.88	12.36	35.28	103.08	424.20
28.	154.08	15.60	26.64	25.44	36.12	257.88
29.	189.48	28.08	36.84	25.32	56.64	336.36
30.	147.00	34.08	36.72	26.28	88.80	332.88
31. ~~	116.88	17.28	36.48	27.96	27.12	225.72
32.	211.92	49.80	39.96	33.96	52.32	388.08
33.	180.00	29.88	123.00	33.96	34.68	401.52
34.	197.16	12.60	58.20	58.20	34.68	360.96
35.	123.24	28.80	41.16	30.48	40.08	263.88
36.	190.80	30.12	46.44	33.00	54.84	355.32
37.	217.44	28.56	61.44	36.00	133.32	476.76
38. 90	180.60	22.32	31.08	39.00	61.20	334.20
39.	200.48	28.06	13.32	23.16	51.60	372.12
40.	179.28	60.00	29.28	34.56	125.16	428.28
41.	174.00	22.08	67.08	28.20	33.72	324.96
4Z. 49	149.04	13.08	44.16	36.72	37.68	281.28
40.	210.00	24.90	48.00	42.00	141.24	472.20
45	200.02	19.06	63.96	43.44	156.96	555.48
40. AG	149.02	18.90	94.48	36.48	63.84	383.28
A77.	142.44	14.40	27.24	32.76	42.60	259.44
48	202.00	41.04	144.00	27.30	94.20	393.36
40.	200.12	24.04	144.00	123.00	58.44	629.40
		B. Ur	ban Rural	Families		
49.	75.25	6.87	8.25	6.30	4.61	101.28
50.	84.00	40.00	6.00		5.00	135.00
51.	106.60	40.00	5.50	·	5.00	157.10
52.	133.56	48.96	6.48	7.80	7.80	204.60
53.	105.40	12.62	7.21	13.05	25.72	163.99
	•	C.	Farm Far	milies		
54.	107.17	16.41	6.70	19.27	35.61	185.16
55.	153.48	21.68	4.85	22.93	56.82	259.26
56.	58.83	4.03	9.24	11.63	4.89	88.62
57.	62.20	6.68	9.24	20.52	14.49	118.13
58.	88.02	7.23	8.59	26.63	24.73	155.20
59.	194.31	6.07	8.40	28.42	21.45	258.65
60.	268.16	24.66	12.99	20.44	23.42	349.67
61.	57.64	11.09	6.59	18.35	- 21.67	115.84

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		AMOU	NT OF EXI	PENDITURE		
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total
62.	108.58	18.36	13.56	43.72	38.84	223.0
63.	178.27	43.07	17.57	27.64	70.14	336.6
64.	179.56	37.10	24.80	26.81	70.53	338.8
65.	123.55	21.88	5.85	37.34	62.71	251.3
66.	191.99	6.78	19.23	25.43	49.83	293.2
67.	*425.15	*27.50	* 6.70	*59.10	*94.20	*702.6
68.	*499.34	*157.20	*28.10	*151.50	*144.70	*980.8
69.	154.71	10.54	6.94	30.24	32.80	235.2
		D. I	ndividual	Workers		
70.	36.10	9.70	<del></del>	<u> </u>	5.20	51.0
71.					<u> </u>	
72.						
73.	39.48	10.56	8.28		5.52	68.8
74.	87.84	27.72	37.08	6.84	71.64	231.1
75.	65.40	14.28	21.36	5.64	35.52	142.2
76.	94.77	9.96	4.78			109.50
77.	51.84	12.24	<u> </u>	·	4.68	68.7
78.	74.93	9.78	6.11		6.27	97.08
79.	<b>*</b> 79.20	*50.40		<b>*3.60</b>	<b>*25.20</b>	*158.40
80.	78.09	18.93			27.40	124.4
81.	74.27	20.66			21.27	116.20
5Z.	59.34	23.88			8.63	91.80

Table	4

PERCENTAGE DISTRIBUTION							
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total	
	\$	\$	\$	\$	<b>\$</b>	\$	
1.	75.0	5.0	8.0	9.0	3.0	100.0	
2.	56.2	17.6	2.1	10.8	13.3	100.0	
3.	42.0	11.0	14.0	7.0	<b>26.0</b>	100.0	
4.	52.0	10.0	13.0	9.0	16.0	100.0	
5.	64.3	9.5	9.5	7.1	9.5	100.0	
6.	66.7	6.7	10.0	10.0	6.7	100.0	
7.	61.8	4.0	11.4	13.5	9.8	100.0	
8.	71.2	6.8	7.5	11.8	3.1	100.0	
9.	56.3	10.3	11.6	7.5	14.2	100.0	
10.	58.2	4.6	9.4	11.8	16.0	100.0	
11.	55.7	9.5	7.1	8.1	19.6	100.0	
12.	56.0	9.4	6.4	7.5	20.6	100.0	

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		PERCE	NTAGE DIS:	FRIBUTION		
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total
13.	<b>56.2</b>	7.3	16.1	9.6	16.8	100.0
14.	57.1	9.0	6.7	1.9	25.4	100.0
15.	64.6	6.2	4.7	3.2	21.2	100.0
16.	61.2	3.6	9.0	2.3	23.7	100.
17.	57.2	14.8	9.8	5.8	12.5	100.
18.	55.4	4.9	9.4	7.7	22.6	100.
19.	56.8	7.6	9.1	7.3	19.2	100.
20.	54.1	6.4	8.8	9.0	21.8	100.0
21.	49.0	9.5	7.0	7.6	26.9	100.0
22.	52.2	10.5	8.2	12.7	16.4	100 (
23.	161.8	15.5	10.7	6.0	16.0	100 (
24.	76.8	11.4	1.8	82	18	100 (
25.	64.7	7.3	6.2	74	14.5	100
26.	60.0	8.3	6.7	11 2	13.8	100.
27.	62.4	2.1	2.9	8.3	24.3	100.
28.	59.8	6.1	10.3	99	14.0	100.
29.	56.3	8.4	11.0	75	16.8	100.
30.	44.2	10.2	11.0	79	967	100.
31.	51.8	7.7	16.2	12 4	120	100.
32.	54.6	12.8	10.3	88	12.0	100.0
33.	44.8	7.5	30.6	85	86	100.
34.	54.6	35 -	16 1	16 1	0.0	100 (
35.	46.7	11.0	15.6	11.5	15.9	100.0
36.	53 7	85	13.1	0.2	15.4	100.0
37.	45.6	0.0	19.0	75	10.4 90 0	100.0
38	54.0	67	02	11.0	100	100.0
39	68.6	77	3.0	11.1	10.0	100.0
40	41 9	1/0	60	0.2	10.9	100.
40. A1	52.6	69	0.9 00 C	0.1	29.Z	100.
42	529	4.7	15.7	0.1	10.4	100.0
49	45.9	4.7 5.9	10.1	19.1	10.4	100.0
40.	40.0	0.0 E E	10.2	8.9	29.9	100.0
-2-2. 15	40.9	0.0 5 A	140	7.8	28.3	100.0
40.	04.1 54.0	9.U 5.5	14.2	9.0	16.7	100.0
40.	04.9	0.0	10.5	12.6	16.4	100.
41.	39.0	10.4	19.6	7.0	24.0	100.
48.	49.8	4.0	22.9	18.1	9.3	100.0
		<b>B. U</b>	rban Rural	Familics		
49.	74.3	6.8	8.1	6.2	4.6	100.0
50.	62.2	29.6	4.5	<u> </u>	3.7	100.
51.	67.8	25.5	8.5	<u> </u>	3.2	100.0
52.	65.3	23. <del>9</del>	3.2	3.8	3.8	100.0
53.	64.3	7.7	4.4	7.9	15.7	100 6

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		PERCE	NTAGE DIS	FRIBUTION		
No.	Food	Clothing	House rent	Fuel & light	Miscel- laneous	Total
		C	. Farm Fo	milies		
54.	57.9	8.9	3.6	10.4	19.2	100.0
55.	59.2	8.4	1.7	8.8	21.9	100.0
56.	66.4	4.5	10.4	13.1	5.6	100.0
57.	55.0	5.9	8.2	18.1	12.8	100.0
58.	56.7	4.7	5.5	17.1	16.0	100.0
59.	75.1	23	3.3	11.0	8.3	100.0
60.	76.7	7.0	3.7	5.9	6.7	100.0
ě1.	50.0	9.6	5.7	15.9	18.8	100.0
62	48.7	82	6.1	19.6	17.4	100.0
63	52.9	12.8	52	8.2	20.9	100.0
64	53.0	11.0	7.3	7.9	20.8	100.0
65	49.2	87	2.3	14.8	25.0	100.0
66	65.5	23	6.6	8.7	16.9	100.0
67	60.5	167	1.0	8.4	13.4	100.0
68	50.9	16.0	29	15.5	14.7	100.0
69.	65.8	4.5	2.0	12.8	13.9	100.0
		D. I	ndividual V	Vorkers		
70.	70.8	19.0			10.2	100.0
71.	73.6	6.6	11.1		8.5	100.0
72.	87.0	2.5	8.0		2.5	100.0
73.	61.8	16.5	13.0	<u> </u>	8.7	100.0
74.	38.0	12.0	16.0	3.0	31.0	100.0
75.	46.0	10.0	15.0	4.0	25.0	100.0
76.	86.6	9.1	4.4	<u> </u>	-	100.0
77.	75.4	17.8	—	<del></del>	6.8	100.0
78.	77.2	10.1	6.3	—	6.5	100.0
79.	50.0	31.8	<u> </u>	2.3	15.9	100.0
80.	62.7	15.2	<u> </u>		22.0	100.0
81.	63.9	17.8			18.3	100.0
82.	64.6	26.0	<u> </u>		9.4	100.0