

## APPENDIX 15.—TWO STANDARD BUDGETS AND METHODS OF ESTIMATING NUMBER OF URBAN FAMILIES UNABLE TO PURCHASE THESE BUDGETS

In Chapter VII of this study, one measure of the adequacy of public-aid payments was the cost of a standard budget for an urban family at an emergency level of living. This appendix will briefly describe this budget and the maintenance budget from which it was derived. Methods of ascertaining the cost of the budgets and variations in cost according to location and the time of pricing will be indicated. In addition, the method of estimating the number of families in the United States whose income is insufficient to purchase a living at the levels represented by these budgets (the number of which was used as one measure of unmet need for public aid in Chapter VI) will be discussed.

### Standard Budgets at the Maintenance and Emergency Levels of Living

A standard budget provides a quantitative statement of the goods and services required by an individual or a family of given composition to maintain a specified level of living, according to the best judgment of experts.<sup>1</sup> The level of living depends not only on the commodities and services which a family purchases or produces at home but also on the working conditions of the earner and on the social services, particularly those relating to education, health, and recreation, that are available to the family without direct payment.<sup>2</sup> The items covered in a standard budget nevertheless provide an approximate measure of the content of living.

#### Defining the Level of Living

The designations of the budgets have relatively little meaning. Their implications can be understood only by reference to the quantity and quality of the commodities and services included under the various categories of consumption. For the purposes of this study, special attention will be given to two standard budgets, for which cost data are available for 1935 and subse-

<sup>1</sup>The following definitions of several terms, whose usage in family-living studies varies widely, will be adhered to in this report: "Standard of living" means an ideal or norm of consumption, which may be defined in terms of goods and services of a specific quality and quantity. "Content of living" refers to the goods and services actually consumed. "Level" or "plane of living" is used as a summary term when generalizing about the content of living of a group, or when comparing the content of living of a group with that of another or with a standard. "Cost of living" refers to the cost of a specified list of goods and services, whether those actually consumed or those included in a given standard of living. These terms were adopted in Williams, Faith M., and Zimmerman, Carle C., *Studies of Family Living in the United States and Other Countries*, U. S. Department of Agriculture, Misc. Pub. No. 223, Washington, 1935, p. 4.

<sup>2</sup>For discussion of this question, see International Labour Office, *The Worker's Standard of Living*, Studies and Reports, Series B, No. 30, Geneva, 1938, ch. I.

quent years: an "emergency level" budget and a "basic maintenance" budget, both prepared by the Works Progress Administration. Before examining these standards, however, a number of the problems have to be considered that arise when preparing quantity budgets, in order that their limitations may be clearly understood.

A frequently used concept is that of the "minimum for subsistence." This implies allowance for survival and reproduction. The concept of basic needs, however, changes with time and also varies from place to place at a given time, as a result of differences in the material progress and culture and the resultant attitude of society. Even in terms of the minimum necessary to prevent death from starvation, the growth of scientific information regarding dietary requirements has resulted in a more generous statement of food requirements than formerly.

In any case, it is impossible to define minimum needs in terms of food alone. It may be almost as important for well-being to satisfy certain nonphysical needs as to satisfy hunger. However, scientific information as to the goods and services required for nonphysical needs is very meager, if not entirely lacking, so that in the final analysis the items included are bound to reflect the judgment of those who prepare the budget. Standards of adequacy are in such cases based on generally accepted ideas of what is satisfactory and on customary usage.

When the level of living to be represented by a particular quantity budget is one that will provide optimum health conditions and a cultural level of living consistent with the material progress of society, many more questions of definition arise, so that there cannot be a completely objective formulation of needs. The general problem remains the same, however.

#### Goods and Services Included in Standard Budgets

There is now reasonable agreement among nutritional hygienists as to the number of calories and the supply of minerals and vitamins necessary for the maintenance of health among persons of different sex, age, and degree of activity.<sup>3</sup> There remains consider-

<sup>3</sup>Cf. Stiebeling, Hazel K., and Phipard, Esther F., *Diets of Families of Employed Wage Earners and Clerical Workers in Cities*, U. S. Department of Agriculture, Circular No. 507, Washington, 1939; Carpenter, Rowena S. and Stiebeling, Hazel K., *Diets to Fit the Family Income*, U. S. Department of Agriculture, Farmers' Bulletin No. 1757, Washington, 1936; U. S. Department of Agriculture, *Food and Life, Yearbook of Agriculture, 1939*, Washington, 1939, pp. 97-404; International Labour Office, *Workers' Nutrition and Social Policy*, Studies and Reports, Series B, No. 23, Geneva, 1936.

able question, however, as to the desirable "margin of safety" that should be provided, that is, the amounts that should be allowed over and above what seems essential, in order to take care of individual variations in needs. Furthermore, variations in need that may be associated with degree of activity, height, and weight of individuals of different sex and age are not sharply defined.

The nutritive values needed by individuals of different sex and age can be supplied by a great many different combinations of foodstuffs. It is essential that some of each of the major types of food be included in the diet, but within these food groups there remains a considerable range of choice as to the specific food items, although certain foods are particularly important sources of nutrients. The selection of foods to supply the various nutritive values thus has an important influence on the cost of the diet.

Even when the problem is to set up an adequate diet at minimum cost, nutritional hygienists are faced with the question of how much attention to give to consumption habits in selecting foods to supply the requisite nutritive values. They are always guided at least in part by the consumption habits of the groups for whom the budget is prepared, although, by substitution of certain very cheap but valuable protective foods that are not popularly consumed, the minimum cost could usually be lowered. This is feasible, however, only if these foods are marketed in sufficient quantities. The practicability of reducing the cost of the food budget in this manner is limited also by the fact that the housewife cannot always purchase the low-priced items specified, either because of the tastes and food habits of her particular family or because of her own lack of marketing skill. In consequence, the total food allowance should be higher than the amount for which an adequate diet could theoretically be purchased, if a reasonably adequate diet is to be insured.<sup>4</sup> When constructing minimum-cost food budgets, the nutritional hygienists generally compromise, making allowance for consumption habits but at the same time including certain inexpensive foods that are not commonly consumed. Seasonality, the quality of goods, and other factors that affect prices of course influence the cost of the food budget.

For categories other than food, for which relatively precise requirement scales are available, the definition of minimum requirements is far more difficult. A standard budget, by definition, makes some provision for all the essential categories of consumption, but the

decision as to the goods and services to be provided generally represents no more than the best judgment of one or more home economists, as guided by the consumption habits of the groups under consideration. Physical health has generally been the criterion in setting up standards, but, as indicated above, if some attempt is made to provide for mental balance and cultural development as well, the decisions are perforce highly subjective.

Next to dietary requirements, basic housing standards have been most clearly defined, although wide variations in housing conditions severely limit the application of such standards. Minimum standards, however, generally include safe construction, fair state of repair, running water, provision for sanitary disposal of waste, at least one window in each room, and an average of not more than one person per room.<sup>5</sup> Fuel, light, and refrigeration needs are closely related to those for housing. Specific standards for fuel consumption cannot be set up for the Nation as a whole, since heating needs vary with climate and, within a given area, with the type of dwelling. Moreover, the type of fuel used is generally determined by that which is locally available.

Allowances must be made in standard budgets for water and refuse disposal only in those areas where the householder is charged for such services. Household supplies, including materials for cleaning, laundry, and the like, must be allowed for in all budgets. The requirements of families of different sizes can be determined quantitatively on the basis of average use. For telephone, postage, writing materials, and the like, however, a small sum is commonly provided, since it would be useless to itemize such needs in quantitative terms.

Furniture and household furnishings and equipment comprise a wide variety of articles that vary greatly as to durability. The annual allowance is determined by estimating the period of wear for each item included and expressing the annual cost of each as the appropriate fraction of the initial cost. Information as to wear is extremely meager, and the determination of frequency of replacement as related to the standard of adequacy is largely a matter of subjective judgment.

Very little study has been made of physiological needs for clothing, and the question of its social and psychological importance can be little more than a matter of opinion. The items included and the frequency of replacement are generally determined in large measure by reference to the findings of consump-

<sup>4</sup> Study of dietary records indicates that a very large proportion of the families spending enough to obtain an adequate diet, for one reason or another fail to obtain satisfactory diets; see Stiebeling and Phipard, *op. cit.*, p. 85.

<sup>5</sup> See, for example, American Public Health Association, Committee on the Hygiene of Housing, *Basic Principles of Healthful Housing*, 2d ed., May 1939.

tion studies of families at different income levels, with some consideration for climatic differences.

Some allowance must be made for personal care to insure the maintenance of health—for toilet soap, tooth paste, tooth brushes, hair brushes, and combs. Provisions for cosmetics, for haircuts, and hairdressing for women is obviously open to question in terms of a subsistence, or even a "maintenance" budget. On the other hand, such items and services have become so much a part of the American culture that it seems highly desirable that some small allowance be made therefor in terms of the maintenance of family morale.

Much study has been directed toward the question of needs for medical attention. A budget showing the kind and quality of medical care needed during a year can be prepared only in terms of very general averages, which are not applicable to any individual or a family of given size during any 1 year unless medical care is purchased on a group insurance basis. Cost figures based on such general averages, however, would probably serve to meet their needs when averaged over a period of years. Provision for preventive care is, of course, highly desirable, but is not generally made in minimum-cost budgets.

Transportation is a service that cannot be included among the basic physical necessities but that must, nevertheless, be included in a standard budget, at least for families living in larger cities.

There is some question as to whether any provision for money expenditure should be made in a subsistence budget for recreational expenditures. In almost all urban communities, some opportunities for recreation are available through tax-supported facilities at no expense to the individual, but the extent of such free sources of amusement varies widely from one community to another. In any case, it seems desirable that an allowance should be made to allow for membership in some group or organization, for occasional admissions to movies or other forms of entertainment, for tobacco, candy, toys, and the like. Certainly it seems desirable that there be provision for a daily newspaper, if we are to have an informed citizenry, even though it is theoretically possible to read a paper at the local public library. For the same reason, it is desirable that there be provision for a radio.

Even at a subsistence level, there is no question that an allowance is necessary to cover the cost of books, supplies, and any special fees required for children attending public schools. The size of the allowance needed will vary from community to community, however, depending on the amount of equipment and supplies that are furnished from tax funds.

Contributions to the church and, above the subsistence level, to social-welfare organizations constitute a

cost to almost all families, even those of small means. In consequence, it seems desirable that a small provision should be made therefor in any standard budget. Although union membership is by no means universal, even a very low-cost budget should allow for payment of union dues as an essential occupational expense. Some form of life insurance for each family member—which may be no more than burial insurance, it is true—is regarded as essential by almost all low-income families. Most standard budgets allow for payment of small premiums. Savings are needed not only in the case of death, however, but also for such contingencies as sickness and accident, old age, and unemployment of earners.

Finally, any standard budget should provide for capitation and personal-property taxes in cities or States where they are levied; income taxes are probably never applicable to families at the income levels for which standard budgets are being considered. Allowance under each item must, of course, be made for sales taxes where they are levied.

Each category of consumption which should be covered in a standard budget has been discussed in more or less detail, because each must be considered in reference to the whole. By definition a standard budget presents a rounded plan for living. It is not sufficient that adequate provision be made for food and housing, for example, with inadequate allowance for other aspects of living, even if they are of lesser importance, if the purpose is to determine the minimum cost of living at a particular level of adequacy. In terms of family living, the result would undoubtedly be a level of living below that specified in all respects, since most families would spend less than the amount estimated as necessary for an adequate diet or satisfactory housing in order to cover the cost of other goods and services. With this in mind, and in the light of the difficulties of formulating standards for most of the specific categories of consumption, the quantity allowances in the emergency and maintenance budgets will be compared in the following pages.

#### Allowances in the Maintenance and Emergency Budgets

In 1935 the Division of Social Research of the Works Progress Administration constructed two quality-quantity budgets; representing a basic maintenance and emergency level of living, respectively.<sup>6</sup> These

<sup>6</sup> The maintenance level represents "normal or average minimum requirements for industrial, service, and other manual workers"; the emergency level "takes into account certain economies which may be made under depression conditions." Stecker, Margaret L., *Quantity Budgets for Basic Maintenance and Emergency Standards of Living*, Works Progress Administration, Division of Social Research, Research Bulletin, Series I, No. 21, Washington, 1936, pp. XII-XIII; Stecker, Margaret L., *Intercity Differences in Costs of Living*, Works Progress

budgets, which have been used rather widely, were designed as a standard for all urban communities of 25,000 population or more, with only minor adjustments to take care of climatic differences and variations in needs for such items as transportation and school supplies. They were priced in 59 cities as of March 1935. For a family containing a moderately active man, his wife, a boy aged 13 years and a girl aged 8, the average cost of the maintenance budget was \$1,261 and of the emergency budget \$903.<sup>7</sup> The cost of the maintenance budget in 31 of these 59 cities has also been estimated for various dates prior to and after 1935.<sup>8</sup> A budget designed to meet accepted requirements of "health and decency" for the family of a skilled wage earner in San Francisco was prepared by the Heller Committee for Research in Social Economics of the University of California. The equivalent cost of this budget for the 59 cities as a group is estimated at about \$1,775 as of March 1935.<sup>9</sup>

When comparing the maintenance and emergency budgets, it is important to note that the maintenance budget was constructed first, providing for complete self-support but making no allowance for carrying or liquidating debts or for saving, except for small life insurance policies. The emergency budget was derived by substituting cheaper kinds of food, allowing for less frequent replacement of clothing, furnishings, and equipment, reducing the provision for certain household necessities, providing less adequate housing, and curtailing or eliminating certain other allowances. It is pointed out that the emergency level "might be questioned on the grounds of health hazards if families had to live at this level for a considerable period of time."<sup>10</sup> Replacements are so infrequent that this level

Administration, Division of Social Research, Research Monograph XII, Washington, 1937, p. 3. These publications will be referred to subsequently as *Quantity Budgets* and *Intercity Differences*, respectively.)

<sup>7</sup> The former ranged from a high of \$1,415 in Washington to a low of \$1,230 in Mobile; the latter varied from \$1,014 in Washington to \$810 in Wichita. (*Intercity Differences*, pp. 1 and 160-161.)

<sup>8</sup> Cost figures for dates other than March 1935 will be found in the *Monthly Labor Review*, and in the mimeographed releases of the Cost of Living Division, Bureau of Labor Statistics, U. S. Department of Labor.

<sup>9</sup> This estimate was obtained by applying to the average of the costs of the Heller budget in November 1934 and November 1935 an adjustment factor representing the ratio of the cost of the maintenance budget in San Francisco to the average cost of that budget in the 59 cities combined, as of March 1935. A separate adjustment factor was developed for each major budget category, such as food, clothing, etc. While this budget was never intended to apply to families in other cities without modification of at least the fuel and clothing allowances, it has received wide acceptance and is of interest to labor groups. It should be noted that comparison of the "health and decency" budget with the maintenance and emergency budgets is complicated not only by the fact that the former was prepared with a view to needs and conditions in San Francisco, but also by the fact that it was drawn up for a family of 5, while the WPA budgets were designed to meet the needs of a 4-person family. (Cf. Heller Committee for Research in Social Economics, *Quantity and Cost Budgets, Prices for San Francisco*, University of California, 1940, mimeographed.)

<sup>10</sup> *Intercity Differences*, pp. XII, XIV, and XVII.

probably could not provide for efficient clothing and household equipment over a long period.

The implications for family living of the maintenance and emergency budgets are to be judged in two ways: the inclusion or exclusion of certain categories or items of expenditures; the extent or adequacy of the provision within each category.

The same foods were included for pricing in the emergency and in the maintenance level budgets, but the quantities allowed for each were very different for a restricted diet and for an adequate diet at minimum cost *i. e.*, for the emergency and the maintenance budgets, respectively.<sup>11</sup> Differences were particularly great in respect to fruits and vegetables (other than citrus fruit and tomatoes), milk products, lean meat, poultry, fish, and eggs, with only about half as large a quantity of each provided in the restricted as in the minimum-cost adequate diet. Not only are these "protective" foods, but they are generally considered among the more palatable. Allowances for the less expensive energy-producing foods tended to be as high in the restricted as in the minimum-cost diet, or even higher.

The nutritive content of the restricted diet is considerably lower than that of the diet used at the maintenance level, with the quantity of various nutrients tending to fall below the standard set for well-balanced diets designed to furnish a fair margin of safety above average minimum requirements of the body. In general, however, even the restricted diet provides for minimum requirements, though for little margin of safety.

The housing standards specified for the basic maintenance level were perforce fairly general and based on the necessity of accepting housing as it existed. On the ground that not more than one person per room might be accepted as the minimum, except in very large families, 4- and 5-room dwelling units were specified for the 4-person manual worker's family. The following were the only attributes required, although others were indicated as desirable:

Under any circumstances, the house must be safely constructed and in at least a fair state of repair, clean, sanitary, free from dampness, and without serious fire hazards. Where there is a State or local housing code setting minimum standards for such essentials as light and air, sanitation, etc., and

<sup>11</sup> The number and quantity of foods included in each food group, moreover, have an important bearing on the total cost of the diet. This is particularly true in the case of meats, which are relatively expensive as a class. The cuts of meat chosen can themselves make a great difference. Although the food budget provided at the maintenance level, for example, is based on plans worked out by the Bureau of Home Economics of the U. S. Department of Agriculture for an adequate diet at minimum cost, only 44 foods are included instead of the 89 for which retail prices are collected by the Bureau of Labor Statistics. For the lean meat, fish, and poultry group, for example, only plate beef, chuck beef, breast of lamb, picnic ham, and canned pink salmon were included in the food budget used by the WPA.

where there is a building code setting standards for structural safety, compliance with these regulations is essential. There must be running water and provision for sanitary disposal of waste. Each room should have natural light and ventilation, with at least one window of normal size opening directly outdoors so as to admit light and air. \* \* \*

Minimum maintenance standards for housing demand that \* \* \* each family have a bathroom with tub or shower and toilet for its exclusive use. This must be in a separate compartment within the house or apartment, except that, where freezing temperatures rarely occur, it may be on the back porch. Cellar or community toilets of any kind are not to be considered satisfactory, and yard toilets are acceptable only when they comply with local health requirements and no other form of toilet is practicable.<sup>12</sup>

The standard for housing at the emergency level was outlined to include all the attributes indicated above except a private indoor shower or tub. It proved impracticable in most communities, however, to obtain rent quotations on such houses. Where it was possible to obtain quotations on such housing, they averaged 75 percent below the amounts needed to obtain the maintenance level housing, so that this rate was generally used in obtaining emergency level rents.<sup>13</sup>

For determination of the fuel, light, and refrigeration allowance for the two WPA budgets, four climates were differentiated. Within each, the allowance for the emergency level was slightly lower than that at the maintenance level in the case of fuel for heating, cooking, and room-warming, but considerably lower in the case of electricity, largely because of the omission of provision for radio operation. In both budgets, gas was allowed for cooking only for the months when coal was not needed for room warming.

Allowance was made for 150 pounds of ice per week at the maintenance level and 125 pounds at the emergency during 5 months a year in places where the winter is severe or average, 7 months where it is short and mild, and 9 months where it is very short and/or mild.

For household operation, a number of items were specified as representative of average requirements at the maintenance level. A discount of 10 percent was used for computing emergency level costs. For each level, a small money allowance was added to cover the cost of telephone calls, postage, writing materials, and the like.

Replacement costs for furnishings and equipment were estimated in the WPA study by determining the initial cost of a list of items and taking annual replacement costs as 10 percent of this total for the maintenance budget and 6 percent for the emergency level. "For purposes of the present budget," the study states,

"it was assumed that immediate use rather than length of service would necessarily control choice of furniture, furnishings, and equipment, and that durability would be somewhat less than might be expected of better quality merchandise sold at higher prices."<sup>14</sup> There was no allowance for insurance on furnishings.

The provisions for clothing at the two levels of adequacy can be judged best from the figures on annual replacement specified for the woman in the home as shown in Table 1.

TABLE 1.—Frequency of annual replacement of clothing for wife as specified in emergency and maintenance budgets

Item	Replacements in emergency budget <sup>1</sup>	Replacements in maintenance budget <sup>1</sup>
Hats	1	3 in 2 years.
Coats:		
Winter	1 in 5 years	1 in 3 years.
Summer or spring	1 in 5 years	1 in 3 years.
Sweater	1 in 4 years	1 in 2 years.
Dresses:		
Silk or rayon	1 in 3 years	1.
Wool	1 in 3 years	1 in 2 years.
Cotton street	1	3 in 2 years.
Cotton work	2	3.
Shoes	2	3.
Slippers	0	1 in 2 years.
Rubbers or galoshes	1 in 3 years	1 in 3 years.
Stockings:		
Silk or rayon	1	2.
Cotton	5	6.
Underwear:		
Slips	1	3 in 2 years.
Foundation garment	1	1.
Brassieres	1	2.
Vests	2	2.
Bloomers	2	3.
Union suits	1	3 in 2 years.
Bathrobe	0	1 in 10 years.
Kimono	0	1 in 5 years.
Nightgown	3 in 2 years	3 in 2 years.
Aprons	1	2.
Gloves	1 in 2 years	1.
Handbag	1 in 3 years	1 in 2 years.
Handkerchiefs	4	6.
Umbrella	1 in 5 years	1 in 3 years.
Incidentals	Allowance of 50c	Allowance of \$1.70.
Upkeep:		
Cleaning and pressing	0	1.
Half soles and heels	2	2.
New heels	0	1.

<sup>1</sup> Unless otherwise indicated, figures indicate replacements per year.

Source: Stecker, Margaret L., *Quantity Budgets for Basic Maintenance and Emergency Standards of Living*, Works Progress Administration, Division of Social Research, Research Bulletin, Series I, No. 21, Washington, 1936, p. 21.

Allowance for personal care differs also between the two budgets. The provisions for such items as hair brush and comb, tooth brush, shaving supplies, and the like, are not very different, but the gradations in provision for cosmetics and barber-shop and beauty-parlor services are very marked. The emergency standard allows for 8 haircuts for the man and the maintenance level for 12 haircuts. For the wife there is no provision even for haircuts at the emergency level, and for 6 cuts and 3 finger waves at the maintenance level; there is no provision for a permanent wave in either budget.<sup>15</sup>

Comparison of the medical-care allowance must be made almost in terms of dollars and cents. Minimum

<sup>12</sup> *Quantity Budgets*, pp. 28-29.

<sup>13</sup> *Intercity Differences*, p. 106.

<sup>14</sup> *Quantity Budgets*, p. 41.

<sup>15</sup> *Ibid.*, p. 26.

requirements were estimated for the maintenance level, according to the findings of the Committee on the Costs of Medical Care, and the various services and medicines priced. Ten percent of the total was deducted in computing the allowance at the emergency level. In March 1935 the average allowance in 59 cities for a family of four was \$47.08 at the emergency level and \$52.32 at the maintenance level.<sup>16</sup> These figures are considerably below the figure of \$25 per year which has been estimated as the minimum annual cost per person of adequate medical care when purchased on a group basis, which is relatively inexpensive.<sup>17</sup> In the budget allowances, however, some use of clinic services free or at a nominal charge is contemplated.

Public conveyances are designed to meet all the transportation needs of the manual or service workers' families at the maintenance and emergency levels. Daily transportation to work is provided for the man and to school for children of high-school age during the school term. The allowance for carfare for shopping, visiting, recreation, medical care, and the like was arbitrarily set at half the allowance for transportation to work and school in the maintenance budget, and one-fourth in the emergency budget.

Both budgets allow for the minimum necessary expenditure for school supplies and make some allowance for church contributions. Provision for tax payments is made as needed.

The items specified in estimating the allowance for recreation and leisure-time activities are of relatively little significance in themselves, although they are assumed to be reasonably representative. The contrast in the total money allowance at the two levels is nevertheless very striking, with only \$12.63 included at the emergency level and \$75.18 at the maintenance level on the average for 59 cities in 1935.<sup>18</sup>

Finally, the provision for life insurance, although included at the emergency level, is extremely meager, with an annual allowance of \$20.80, or a weekly rate of 15 cents each for the man and woman and 5 cents for each child—enough for simple burial. At the maintenance level, the annual figure is \$46.40, which includes the cost of a straight life policy for \$1,000 for the man, taken out at 35 years, plus 25 cents a week for the woman, 10 cents for children 8 and over, and 5 cents each for younger children.<sup>19</sup>

### Pricing the Standard Budgets

The money value of these two budgets is influenced not only by the goods and services included, but also by the method of obtaining price information. The quality of the commodities and services priced, the services provided by the stores from which prices are obtained, and the neighborhood in which these stores are located all have an important bearing on the final cost of the budget.

When cost comparisons are made among a number of cities during the same year or for a particular community from year to year, it is necessarily assumed that the same items, of the same quality, are priced. Spatial comparisons are made difficult by virtue of the fact that the same articles are not offered for sale in all communities. Time comparisons are made difficult by the constant introduction of new items and the dropping of others for which there may be a substitute. Even for a single community at a given date, however, serious difficulties are introduced because of the fact that exact methods of testing and labeling have been introduced for very few consumers' goods. For those few which are labeled in terms of exact specifications, and in the case of public utility rates, there is no problem. In so far as possible, detailed technical descriptions or specifications, developed by the Retail Price Division of the Bureau of Labor Statistics, are used as guides to the quality of articles for securing retail prices of comparable items from time to time and from place to place.<sup>20</sup>

Although specifications have been better standardized for food than for most other goods and services, such problems arise as are indicated by the following statement covering experience in pricing the two WPA budgets:

\* \* \* prices of plate beef were for the best cut of the best grade of beef handled, with the bone in, but such a specification covers a wide range of meat grade as well as a varying proportion of bone, depending on the method of cutting used. A diversity of grades was possible within many of the other specifications. Oleomargarine might be either animal or nut vegetable; prices of commodities sometimes sold in bulk and sometimes in packages or cans, such as lard, butter, coffee, tea, molasses, cereals, and dried fruits, were obtained in units of varying size, according to the usual method of sale. Some fresh fruits and vegetables were priced by size rather than by weight: number of oranges, of heads of lettuce, or of bunches of carrots to the crate; and no one number but a limited range was specified.

<sup>20</sup> The Retail Price Division of the Bureau of Labor Statistics has prepared more or less precise specifications for the goods and services—approximately 400 in number—on which it collects retail prices for use in computation of changes in cost of living. These are items of importance in retail trade and in the expenditures of wage earners' and lower-salaried clerical workers' families. See U. S. Department of Labor, Bureau of Labor Statistics, Retail Price Division, *List of Items on which Retail Prices Are Collected*, Washington, June 1, 1940.

<sup>16</sup> *Intercity Differences*, p. 70.

<sup>17</sup> Interdepartmental Committee to Coordinate Health and Welfare Activities, *The Need for a National Health Program*, Report of the Technical Committee on Medical Care, Washington, 1938, p. 27.

<sup>18</sup> *Intercity Differences*, p. 81.

<sup>19</sup> *Ibid.*, p. 86.

\* \* \* Most food dealers carry only one kind of certain merchandise at a time, and the price quoted was necessarily for the commodity in stock on the day of the report. Often neither the shopkeeper nor the field agent could tell exactly what its specifications were. Prices of fresh fruits and vegetables varied most among the separate cities; quotations for these commodities on any day depend almost entirely on the available supply, for such perishables soon lose all value if they are not sold. Supply in turn is related to the seasons and to shipments received in the market each day. \* \* \*

In the last analysis, however, so sensitive are retail food prices to the influence of any circumstance which affects the flow of commodities to the dealer's shelves and so quickly can changes in his costs be passed on to the consumer that quotations for a single item on a given day may in no sense be representative. \* \* \*<sup>21</sup>

When pricing certain types of inexpensive household goods and supplies, it is a common practice to price those which the storekeeper reports are most commonly sold.

In brief, then, for most consumer goods and services, it is extremely difficult to formulate precise specifications, and even when specifications have been drawn up, it is not always possible to find goods and services for pricing which meet these specifications exactly. It is a characteristic of retailers to carry goods that differ somewhat from those of competitors in an effort to attract trade. It is possible that in many cases the pricing of comparable merchandise, when designated commodities are not carried, provides a more realistic cost-of-living figure than would prices on identical commodities which either are not commonly carried or are not commonly purchased even when a few are available.

Before the work of price collection is undertaken, it is necessary to survey the retail-trade areas of the community and to select a representative sample of the retail outlets that would be patronized by the groups for which the budget is being prepared. Price quotations are collected in a considerable number of stores for each commodity, in order that a reasonable average price be obtained to apply to the quantity allowances. The general practice is to obtain regular prices, not sale or "special" prices, on the ground that few families can take advantage of the latter regularly. Moreover, in order that the cost figure be realistic, not only chain and cash-and-carry stores, where prices tend to be lowest, are visited, but also stores that offer credit and delivery services. In the case of food, the stores are usually in neighborhoods where families at the income level to which the standard budget applies are living. But in the case of clothing and household goods, prices are obtained not only in local stores but also in the downtown shopping centers. In preparing

the average price figures, prices obtained in different types of stores and in different neighborhoods are weighted, so far as possible, to reflect buying habits at the relevant economic level.

The determination of representative rents for dwellings that meet specified standards is particularly difficult and gives rise to special problems. For a low-cost budget, rents are generally secured in areas where the dwellings of wage earners predominate, but in some communities dwellings typical of such neighborhoods fail to meet the standards specified, so that it is necessary to obtain rent figures in other areas. Information regarding rentals of specific dwelling units can be obtained from real-estate agents. At a time when rents are changing, separate averages are often prepared for occupied and unoccupied dwellings as the two figures may be different. In some cases, rents are obtained from families living in houses designated as standard, as well as from real-estate agents. Variations among communities in the types of structure, age, state of repair, conveniences, neighborhood, etc., mean that identical rents in two cities may not represent comparable housing facilities, although by definition certain basic standards would be covered by each.<sup>22</sup> When comparing housing costs in communities with different types of dwellings, it is therefore advisable to compute standardized rents.<sup>23</sup>

#### Cost of Living at the Emergency and Maintenance Levels

As stated above, when average prices were combined with the quantity allowances discussed above for the two WPA budgets, the cost of living for a family of four in March 1935 averaged approximately \$1,260 for the basic maintenance level in 59 cities of 25,000 and over. Taking into account the economies suggested for emergency living, the cost averaged approximately \$900 in the same cities.<sup>24</sup> (See Table 2.) At the maintenance level, the total cost of living was found to range from \$1,130 in Mobile, Ala., to \$1,415 in Washington, D. C. Cost of the emergency budget varied from \$810 in Wichita, Kans., to \$1,014 in Washington, D. C., and Minneapolis, Minn. It should be noted, however, that the cities that ranked high or low, respectively, in regard to the total cost of living were by no means in the same position in regard to the separate categories of consumption.

<sup>22</sup> For statement of problems encountered in obtaining rent data and the procedure employed, when determining the cost of the maintenance budget, see *ibid.*, pp. 100-106.

<sup>23</sup> For discussion of technique of computing standardized rents, see "Differences in Living Costs in Northern and Southern Cities," *Monthly Labor Review*, XLIX (July 1939), 32-33.

<sup>24</sup> The mean and median figures for the 59 cities are almost identical for both levels of living.

TABLE 2.—Estimated annual costs of living at the maintenance and emergency levels, by major budget groups, for a four-person manual worker's family, 59 cities, March 1935

City	Maintenance level							Emergency level						
	Total	Food	Clothing	Housing	Fuel, light, and refrigeration	Household furnishings and equipment	Miscellaneous	Total	Food	Clothing	Housing	Fuel, light, and refrigeration	Household furnishings and equipment	Miscellaneous
	\$1,260	\$448	\$159	\$222	\$99	\$31	\$301	\$903	\$340	\$112	\$168	\$82	\$19	\$182
Average, 59 cities.....	1,260	448	159	222	99	31	301	903	340	112	168	82	19	182
Albuquerque, N. Mex.....	1,299	486	164	232	108	34	275	948	377	117	181	90	20	163
Atlanta, Ga. <sup>1</sup> .....	1,268	463	146	246	85	32	296	911	347	102	189	72	19	182
Baltimore, Md. <sup>1</sup> .....	1,301	453	147	228	92	30	352	927	341	102	174	74	18	218
Binghamton, N. Y.....	1,243	447	156	228	102	32	278	878	336	109	171	87	19	157
Birmingham, Ala. <sup>1</sup> .....	1,169	447	147	167	79	28	300	836	337	103	128	66	17	185
Boston, Mass. <sup>1</sup> .....	1,358	468	163	264	109	32	316	958	349	114	198	90	19	188
Bridgeport, Conn.....	1,298	488	156	234	108	29	283	920	363	109	174	89	17	167
Buffalo, N. Y. <sup>1</sup> .....	1,261	442	161	210	98	31	319	902	333	113	156	82	19	199
Butte, Mont.....	1,284	449	185	201	112	32	260	849	319	115	153	93	19	151
Cedar Rapids, Iowa.....	1,186	418	163	210	112	30	346	973	349	117	180	93	18	215
Chicago, Ill. <sup>1</sup> .....	1,356	462	166	240	105	32	331	936	340	112	194	69	19	202
Cincinnati, Ohio <sup>1</sup> .....	1,312	449	159	257	85	32	331	936	340	112	194	69	19	202
Clarksburg, W. Va.....	1,190	464	160	192	64	33	276	853	355	112	147	60	20	169
Cleveland, Ohio <sup>1</sup> .....	1,348	444	183	234	88	32	368	965	338	127	177	72	19	231
Columbia, S. C.....	1,193	480	143	198	99	33	239	845	360	100	150	83	20	132
Columbus, Ohio.....	1,179	444	161	192	74	32	275	841	341	112	144	59	19	165
Dallas, Tex.....	1,189	452	140	216	74	29	279	854	343	99	165	61	17	169
Denver, Colo. <sup>1</sup> .....	1,246	435	159	204	86	32	330	885	331	112	150	70	19	203
Detroit, Mich. <sup>1</sup> .....	1,318	444	171	222	106	31	43	944	332	120	168	90	19	216
El Paso, Tex.....	1,154	441	145	195	100	30	242	832	340	102	153	82	18	136
Fall River, Mass.....	1,272	454	167	222	119	31	307	869	328	111	159	61	19	192
Houston, Tex. <sup>1</sup> .....	1,210	431	158	210	73	29	308	859	319	106	156	73	18	188
Indianapolis, Ind. <sup>1</sup> .....	1,198	420	150	201	90	32	275	869	345	106	150	86	19	162
Jacksonville, Fla. <sup>1</sup> .....	1,217	459	151	198	102	32	331	900	339	111	150	65	17	218
Kansas City, Mo. <sup>1</sup> .....	1,245	448	159	198	81	29	331	900	339	111	150	65	17	218
Knoxville, Tenn.....	1,167	423	150	206	84	33	271	844	327	105	158	72	20	163
Little Rock, Ark. <sup>1</sup> .....	1,139	444	149	174	74	30	268	820	340	106	135	61	18	160
Louisville, Ky. <sup>1</sup> .....	1,308	442	180	198	100	32	356	936	336	126	147	83	19	225
Los Angeles, Calif. <sup>1</sup> .....	1,220	443	155	210	83	30	299	862	338	108	162	66	18	179
Manchester, N. H.....	1,254	464	158	186	128	30	289	890	348	112	138	106	18	167
Memphis, Tenn. <sup>1</sup> .....	1,221	433	148	222	82	31	305	877	333	103	168	68	19	187
Milwaukee, Wis.....	1,353	426	178	270	124	32	324	971	322	124	204	104	19	217
Minneapolis, Minn. <sup>1</sup> .....	1,388	437	175	264	145	32	334	1,014	335	124	198	124	19	213
Mobile, Ala. <sup>1</sup> .....	1,130	433	142	163	90	31	270	815	330	99	127	76	19	164
Newark, N. J.....	1,301	475	145	258	110	30	283	921	356	102	192	90	18	162
New Orleans, La. <sup>1</sup> .....	1,233	432	149	198	82	29	342	883	331	105	147	67	18	215
New York, N. Y.....	1,375	477	148	300	108	28	314	982	359	104	222	89	17	191
Norfolk, Va.....	1,251	456	153	238	100	29	276	892	342	107	83	83	18	163
Oklahoma City, Okla.....	1,218	441	156	205	88	28	300	874	339	110	157	72	17	180
Omaha, Neb.....	1,288	444	160	238	99	29	288	909	340	113	181	82	17	175
Peoria, Ill.....	1,274	449	164	274	79	31	278	913	342	110	168	70	18	209
Philadelphia, Pa.....	1,298	448	152	240	87	30	342	925	341	106	180	70	18	223
Pittsburgh, Pa.....	1,311	448	160	246	72	29	354	930	337	112	183	58	18	209
Portland, Maine <sup>1</sup> .....	1,275	451	173	204	122	32	293	922	343	122	156	104	19	178
Portland, Oreg. <sup>1</sup> .....	1,222	436	178	158	103	31	316	885	335	127	119	86	19	199
Providence, R. I. <sup>1</sup> .....	1,245	460	147	216	113	30	279	885	341	103	162	94	18	168
Richmond, Va. <sup>1</sup> .....	1,268	447	167	236	100	34	283	910	338	117	182	84	20	170
Rochester, N. Y.....	1,288	443	156	225	131	30	302	925	333	111	168	111	18	184
St. Louis, Mo. <sup>1</sup> .....	1,340	448	156	270	75	28	262	856	338	109	204	61	17	228
Salt Lake City, Utah.....	1,243	432	175	195	106	35	300	891	332	125	144	87	21	193
San Francisco, Calif. <sup>1</sup> .....	1,390	459	179	270	115	32	334	1,001	352	127	204	96	19	202
Scranton, Pa. <sup>1</sup> .....	1,312	449	162	276	92	32	302	932	341	113	207	74	19	178
Seattle, Wash. <sup>1</sup> .....	1,233	443	167	168	109	32	315	887	340	117	126	91	19	183
Sioux Falls, S. Dak.....	1,291	424	167	271	142	30	356	938	329	118	205	118	18	149
Spokane, Wash.....	1,229	427	179	174	108	34	307	894	333	126	132	89	21	193
Tucson, Ariz.....	1,287	464	162	222	121	32	286	920	357	115	165	98	19	166
Washington, D. C. <sup>1</sup> .....	1,415	476	155	342	96	30	315	1,014	357	109	258	80	18	192
Wichita, Kans.....	1,131	427	153	165	95	29	262	810	323	108	123	79	18	159
Winston-Salem, N. C.....	1,222	456	154	209	112	31	261	873	342	108	158	94	18	152

<sup>1</sup> The cost of living at the maintenance level has been estimated for these cities at various intervals after March 1935.

Source: Stecker, Margaret L., *Intercity Difference in Costs of Living*, Works Progress Administration, Division of Social Research, Research Monograph XII, Washington, 1937, appendix A, tables 2 and 8. There are slight discrepancies between the totals and the sums of their component items owing to the rounding of numbers in computing averages.

Variations among cities in the cost of either budget must not be attributed entirely to price differences. As noted above, the emergency and maintenance budgets were designed as standards for all cities of 25,000 population and over, with only minor adjustments in fuel requirements to take care of climatic differences and variations in need for such items as transportation and school supplies. It is possible that costs might have been lower in some cities and higher in others if the two budgets had been more generally adjusted

in regard to the items included, to take account of differences in consumption habits and requirements, with emphasis on goods that are locally used to serve the same purpose as those itemized. However, although "the use of specifications as a means of maintaining comparability of goods and services priced was an integral part of the technique of this study,"<sup>25</sup> in practice identical merchandise could not always be priced.

<sup>25</sup> *Intercity Differences*, p. 145.



As already indicated, volume of sale and customary use was frequently a factor in pricing.<sup>26</sup> It appears, therefore, that lack of precise specifications for many goods and services has somewhat the same net effect as greater intercity variation in the items included would have had.

The 59-city average is useful for generalization, but its limitations must be recognized. While the cities were selected with a view to geographic location, size, and socio-economic characteristics, the coverage was more complete in some regions than in others and in large cities than in smaller cities. Nevertheless, the 59 cities where prices were obtained included almost 61 percent of the urban population in communities of 25,000 or more in 1930, and nearly 25 percent of the total population of the United States.<sup>27</sup>

*Regional differences in cost of living.*—When the 59 cities covered in the WPA study are grouped into five broad geographic regions,<sup>28</sup> the estimated cost of the maintenance and emergency budgets varies comparatively little, as shown by the following figures for March 1935:

Region	Maintenance	Emergency
New England.....	\$1,285	\$910
North Central.....	1,205	925
South.....	1,220	875
Mountain and Plains.....	1,255	905
Pacific.....	1,275	920

The differentials are smaller than might be expected and very similar at the two levels of living,<sup>29</sup> with costs in the North Central region, which ranks highest, exceeding those in the South by only about 6 percent.

*City-size differences in costs of living.*—Size-of-city differences are only slightly more marked than regional differentials, but with wide variations in cost among cities in the same size class, even within a given region. The average costs at the two levels, in March 1935, compared as follows for cities in five size groups:

Size of city	Maintenance	Emergency
1,000,000 or more.....	\$1,331	\$952
500,000-1,000,000.....	1,332	951
250,000-500,000.....	1,252	898
100,000-250,000.....	1,235	885
25,000-100,000.....	1,230	883

Although cities of less than 25,000 population were not included in this survey, it would not be unreasonable to use cost estimates for cities of 25,000 and over as representative of all urban communities, although the latter would undoubtedly average slightly lower. The estimated cost of the maintenance budget in December 1938 ranged from \$1,151 to \$1,341 in 10 cities of 10,000 to 25,000 population in the Eastern and Central states, and from \$1,184 to \$1,364 in 6 cities of 25,000 to 250,000 in the same area.<sup>30</sup>

No information is available regarding costs in cities of less than 10,000 population. While equivalent budgets for families in communities of 2,500 to 10,000 population and in larger cities would probably not differ significantly in the items included, costs in the former would of course be somewhat lower, particularly as home gardens are a potential source of food in small towns. There is little reason, however, to expect that the differential in costs between cities of less than 10,000 population and those of 25,000 to 250,000 would average much more than 5 percent.

#### Changes in Costs Since 1935

The cost of living at a given level of course varies over a period of time as the price structure changes. Over an extended period of time, it is necessary that quantity budgets be revised to take account of changes in consumption habits, but over short periods satisfactory results are obtained by bringing cost figures up to date. Complete repricing of a budget at frequent intervals, particularly when a large number of cities is involved, is an extremely costly and time-consuming process. It is therefore customary to bring cost of living information up to date by applying, by groups of items, the Bureau of Labor Statistics indexes of the cost of goods customarily purchased by wage earners and lower-salaried workers (which show changes in costs from time to time in individual cities) to the original cost figures.

This procedure has been followed in general by the Bureau of Labor Statistics in estimating the cost of the maintenance budget for various dates subsequent to March 1935 in 31 cities covered by both the WPA study and the Bureau's studies of changes in the cost of goods purchased by wage earners and lower-salaried workers.

<sup>26</sup> *Ibid.*, p. 146.

<sup>27</sup> *Ibid.*, pp. 91-92, and appendix B, table 1.

<sup>28</sup> The five regions correspond to those differentiated by the National Resources Committee's study, *Consumer Incomes in the United States; Their Distribution in 1935-36*, Washington, 1938, pp. 42-43. The New England and Pacific regions correspond to the Census grouping. The Southern Region comprises the South Atlantic, East South Central, and West South Central. The North Central includes the census Middle Atlantic, East North Central, and 5 additional States from the West North Central. The Mountain and Plains region includes the Census Mountain area and the remaining States in the West North Central.

<sup>29</sup> Although part of the similarity in differentials is due to the categories in the emergency budget which have a fixed relation to the cost of that group of items in the maintenance budget, the similarity remains when these fixed categories are subtracted and the comparison limited to those (comprising about 60 percent of the cost of each budget) which were computed separately. See Williams, Faith M., "Factors to be Considered in Measuring Intercity and Interregional Differences in Living Costs," *Journal of the American Statistical Association*, XXXV (September 1940), 471-82, especially pp. 477-78.

<sup>30</sup> "Differences in Living Costs in Northern and Southern Cities," *Monthly Labor Review* XLIX (July 1939), 37-38.

TABLE 3.—Comparison of costs of "adequate diet at minimum cost" estimated by three different methods for four cities, at specified dates

Method of estimate	February 1939		December 1938	
	Cleveland	Mobile	San Francisco	Seattle
Computed by applying cost of living index for food to March 1935 figures.	\$453	\$423	\$447	\$435
Computed from current prices for 44 foods.	402	410	445	424
Computed from current prices for 89 foods.	456	467	503	483

Source: Supplied by the Cost of Living Division, Bureau of Labor Statistics, U. S. Department of Labor.

A certain amount of error is involved, however, as a result of the fact that the quantity weights in the index are not the same as those used in preparation of the maintenance budget. Moreover, particularly in the case of food, prices fluctuate rapidly over short periods and at different rates for different food items, so that application of an index is not entirely satisfactory.

The difference in result when an index is applied from that obtained by repricing is indicated by the figures in Table 3, which show three estimates of the costs of the "adequate diet at minimum cost" in four cities. When food costs for December 1938 or February 1939 were estimated by applying the Bureau's cost-of-living index for food (based on 89 items) to the March 1935 figures (computed from prices of 44 foods), the resultant figures were consistently higher than when costs were estimated by recomputing the food budget from current prices of the same foods as were used in the 1935 study. When costs were estimated on the basis of current prices for the entire list of 89 foods, however, the figures ranged from \$3 to \$56 above those estimated by applying the index and from \$54 to \$59 above the estimates based on current prices of 44 foods in the four cities for which such data are available. The 2 estimates based on current prices represent the same quantities of meat, breadstuffs, fruits, vegetables, etc., but the estimate based on prices of 89 foods gives a less monotonous diet. The higher cost of the estimates calculated from the prices of 89 foods reflects the fact that the more varied diet tends to be more expensive than that in the restricted list of 44 very inexpensive foods used in the WPA study.

In December 1938 the maintenance budget was partially repriced by the Bureau of Labor Statistics. Since that date, the Bureau has prepared quarterly estimates of the cost of living at the maintenance level for 31 cities, by applying the indexes to the revised December 1938 figures for groups of items other than food. For each quarter, the cost of the food budget—the "minimum-cost adequate diet"—has been completely recomputed on the basis of all the foods cur-

rently priced for inclusion in the Bureau's cost of living index for food.<sup>31</sup> (See Table 4.)

### Urban Families Unable to Purchase Maintenance or Emergency Budgets

A realistic appraisal of the figures on cost of living at the maintenance and emergency levels requires not only an understanding of the basic quantity allowances but also information regarding the number of families that have incomes insufficient to purchase a living at these levels. In the foregoing discussion, the cost of living represented by the maintenance and emergency budgets was determined for a family consisting of four persons. In order to project information on the cost of budgets at specified levels of living, it is necessary to determine the cost of living at each of these levels for families of varying sizes.

#### Influence of Family Composition on Cost of Living

The number and age of family members obviously is of as much importance as family income in determining the level of living of a family. Each of the standard budgets discussed is designed for a family of a particular composition. If the same total of goods and services or the same total money figure were shared by a larger number of persons, the per capita level would of course be lower, and conversely, if shared by a smaller number of persons, each would enjoy a higher level than the standard set by the budget.

Differences in cost of living for families of different composition at a given level of adequacy can be determined by applying average prices to readjusted quantity allowances. When a quantity-cost budget has been prepared for a family of given size, however, additional work is involved. Allowances for such categories as food, clothing, personal care, transportation, and recreation must be set up for persons of different sex and age in the first instance, in order that total allowances for families of different composition can be computed. Adjustments for differences in household needs raise problems of a different order. The prices of foodstuffs and certain other items vary somewhat with the quantity of purchase, but for most consumption goods and services the average prices obtained for a particular item in a community can be applied to one set of quantity weights as well as another. In the case of housing, it is a time-consuming operation to obtain cost-figures for families of different sizes because it is necessary to obtain rent quotations for dwelling units of different sizes.

Recently, estimates have been made of the costs of

<sup>31</sup> From December 1938 and February 1939, 89 foods were included; from September 1939 to June 1940, 60 foods were included.

TABLE 4.—Estimated annual costs of living at the maintenance level, by major budget groups, for a 4-person manual worker's family, 31 cities,<sup>1</sup> quarterly from December 1938 to June 1940<sup>2</sup>

Item	All Items	Food	Clothing	Housing	Fuel and Light	Household Furnishings and Equipment	Miscellaneous
June 1940:							
31-City Average (in \$).....	1,347.....	471.....	166.....	254.....	102.....	34.....	320.....
High:							
Amount (in \$).....	1,506.....	522.....	178.....	350.....	148.....	37.....	386.....
City.....	New York.....	New York.....	Cincinnati.....	Washington.....	Portland, Maine.....	San Francisco.....	San Francisco.....
Low:							
Amount (in \$).....	1,173.....	437.....	149.....	178.....	67.....	30.....	266.....
City.....	Mobile.....	Los Angeles.....	Jacksonville.....	Mobile.....	Birmingham.....	Atlanta.....	Mobile.....
March 1940:							
31-City Average (in \$).....	1,346.....	471.....	167.....	254.....	104.....	34.....	311.....
High:							
Amount (in \$).....	1,519.....	533.....	178.....	351.....	149.....	38.....	388.....
City.....	New York.....	New York.....	Cincinnati.....	Washington.....	Portland, Maine.....	San Francisco.....	San Francisco.....
Low:							
Amount (in \$).....	1,187.....	437.....	149.....	178.....	70.....	30.....	267.....
City.....	Mobile.....	Los Angeles.....	Jacksonville.....	Mobile.....	Birmingham.....	Atlanta.....	Mobile.....
December 1939:							
31-City Average (in \$).....	1,348.....	469.....	166.....	254.....	104.....	34.....	321.....
High:							
Amount (in \$).....	1,502.....	518.....	176.....	351.....	148.....	38.....	389.....
City.....	New York.....	New York.....	Cleveland.....	Washington.....	Portland, Maine.....	San Francisco.....	San Francisco.....
Low:							
Amount (in \$).....	1,191.....	433.....	148.....	177.....	69.....	31.....	273.....
City.....	Mobile.....	Los Angeles.....	Jacksonville.....	Mobile.....	Birmingham.....	Atlanta.....	Mobile.....
September 1939:							
31-City Average (in \$).....	1,354.....	478.....	164.....	254.....	103.....	34.....	322.....
High:							
Amount (in \$).....	1,510.....	529.....	175.....	351.....	143.....	37.....	389.....
City.....	New York.....	New York.....	Cincinnati.....	Washington.....	Portland, Maine.....	St. Louis.....	San Francisco.....
Low:							
Amount (in \$).....	1,196.....	447.....	147.....	175.....	70.....	30.....	274.....
City.....	Mobile.....	Los Angeles.....	Jacksonville.....	Mobile.....	Birmingham.....	Atlanta.....	Mobile.....
June 1939:							
31-City Average (in \$).....	1,334.....	458.....	164.....	254.....	102.....	34.....	322.....
High:							
Amount (in \$).....	1,478.....	492.....	174.....	352.....	139.....	37.....	389.....
City.....	Washington.....	New York.....	Cleveland.....	Washington.....	Portland, Maine.....	St. Louis.....	San Francisco.....
Low:							
Amount (in \$).....	1,179.....	427.....	147.....	175.....	69.....	30.....	274.....
City.....	Mobile.....	Los Angeles.....	Jacksonville.....	Mobile.....	Birmingham.....	Atlanta.....	Mobile.....
March 1939:							
31-City Average (in \$).....	1,345.....	466.....	164.....	254.....	105.....	34.....	322.....
High:							
Amount (in \$).....	1,487.....	504.....	175.....	353.....	139.....	37.....	394.....
City.....	New York.....	New York.....	Cleveland.....	Washington.....	Minneapolis.....	St. Louis.....	San Francisco.....
Low:							
Amount (in \$).....	1,187.....	438.....	147.....	175.....	75.....	31.....	274.....
City.....	Mobile.....	Cincinnati.....	Jacksonville.....	Mobile.....	Los Angeles.....	Atlanta.....	Mobile.....
December 1938:							
31-City Average (in \$).....	1,348.....	469.....	165.....	255.....	105.....	34.....	322.....
High:							
Amount (in \$).....	1,494.....	510.....	176.....	353.....	140.....	37.....	394.....
City.....	New York.....	New York.....	Cleveland.....	Washington.....	Minneapolis.....	San Francisco.....	San Francisco.....
Low:							
Amount (in \$).....	1,184.....	438.....	148.....	175.....	75.....	31.....	272.....
City.....	Mobile.....	Cincinnati.....	Jacksonville.....	Mobile.....	Los Angeles.....	Atlanta.....	Mobile.....

<sup>1</sup> For list of 31 cities, see table 2, cities marked with footnote 1.

<sup>2</sup> Cost estimates for December 1938 based largely on current prices; those for subsequent dates computed by applying by groups of items the Bureau of Labor Statistics indexes of the cost of goods purchased by wage earners and lower-salaried clerical workers, to the data for December 1938. The food budget, however, was completely repriced at each date.

Source: Periodic releases on estimated intercity differences in costs of living by the Bureau of Labor Statistics, U. S. Department of Labor.

living in March 1935 at the maintenance and emergency levels for five types of families in 59 cities which are comparable with the WPA estimates for a 4-person family.<sup>32</sup> The families consist of an employed manual worker, a housewife, and from one to five children under age 16. The cost estimates for children are based on the needs of an "average child"; that is, they are an average of costs for children of both sexes in 16 age groups (from under 1 year to 15 years inclusive).<sup>33</sup> Since costs of living vary with sex and age, potential excesses or deficiencies in allowances for any one age of either sex

<sup>32</sup> Unpublished data prepared by Margaret Loomis Stecker and made available by the Analysis Division, Bureau of Old-Age and Survivors Insurance, Social Security Board.

<sup>33</sup> The cost of living for an "average child" appears to be similar to the cost for a boy of 5 to 6 years or a girl of 9 to 10 years.

tend to be canceled out by using the concept of an "average child." It is possible, therefore, to compare these cost estimates with income estimates which do not distinguish between families on the basis of the sex and age of children under 16 years. When the costs obtained in this manner were average for the 59 cities, they were approximately as follows, at the two levels of living:

	Maintenance level	Emergency level
Normal families by number of "average" children under 16:		
1 child.....	\$1,040	\$740
2 children.....	1,210	860
3 children.....	1,395	1,000
4 children.....	1,615	1,160
5 children.....	1,785	1,280

For the purposes of the present study, the costs of living at the emergency and maintenance levels for families of all other types and sizes were estimated more roughly for these families on the basis of costs per "consumption unit." Using separate scales of relative requirements for food, clothing, and other goods, costs per equivalent adult were calculated and relatives developed to represent an adult of unspecified sex and an "average child" under 16 years.

On the basis of these relatives, families containing varying numbers of adults and children under age 16 were converted into the appropriate size in terms of consumption units.<sup>34</sup> Thus the cost of living per family at the maintenance and emergency levels, respectively, for families containing varying numbers of adults and children was calculated by multiplying the appropriate consumption-unit cost by the number of consumption units represented by the family.

By definition, these amounts would provide an identical level of living for families of the various types specified. However, owing to the limited materials available and the methods used, they must be regarded as approximations.

#### Characteristics of Income Data Used for Estimates

The widely used income distributions prepared by the National Resources Committee from data collected by the Study of Consumer Purchases classify families into only four size groups. Hence it was necessary to use other data for comparison of family income and living costs of the maintenance and emergency levels.

Distributions of urban families of all sizes containing varying numbers of children under 16 years have been prepared from tabulations for single- and multiple-family households, respectively, which were supplied by the Division of Health and Disability Studies, Bureau of Research and Statistics, Social Security Board. The basic data, relating to the year 1935, were collected in 84 cities, as part of the National Health Survey, conducted by the United States Public Health Service. Over 610,000 households of two or more persons were covered. The income distributions represent a combination of data for single- and multiple-family households.

Since no information was obtained on the income of relief families, all relief families are grouped together

<sup>34</sup> Because information on costs was not available for families without children, for those with more than 5 children, or for the broken families of any size, it was assumed that consumption-unit costs were the same for 2- and 3-person families as for families with 1 child, the same for all 4-person families as for families with 2 children, and so forth. Furthermore, the consumption-unit costs for a family containing 5 children were assumed to be applicable to all families of 7 or more.

in the distributions. Nonrelief families were asked only to place themselves in one of several broad income groups. They were classified as follows: under \$1,000; \$1,000-\$1,500; \$1,500-\$2,000; \$2,000-\$3,000; \$3,000-\$5,000; and \$5,000 and over.

Income was defined to include only cash income. No adjustment was made to compensate for the probable underrepresentation of high-income families, which characteristically are least willing to supply information on income, and hence there is probably a downward bias in the data. As a result of these two factors and the additional fact that the Health Survey data relate to a somewhat earlier period than the Consumer Purchases Study data, the distribution of urban families of two or more is slightly lower than that shown by the National Resources Committee estimate.

	National Health Survey, 1935	National Resources Committee, 1935-36
	Percent	Percent
All families.....	100.0	100.0
Families receiving some relief.....	16.6	16.5
Families not receiving relief:		
Under \$1,000.....	25.3	22.6
\$1,000-\$1,499.....	23.3	20.0
\$1,500-\$1,999.....	16.8	16.6
\$2,000-\$2,999.....	11.7	15.1
\$3,000-\$4,999.....	4.4	6.8
\$5,000 and over.....	1.9	3.4

Because the estimate by the National Resources Committee includes an adjustment for the underrepresentation of high-income groups, based on income tax data, it is probably more accurate than the figures which are used here. It is, however, impossible to determine to what extent the difference reflects the difference in the period covered by the two surveys, or to what extent it reflects the exclusion of imputed income from housing from the Health Survey figures. Approximately 3.5 percent of the families of two or more persons covered in the latter study failed to report their relief status or income. The distribution shown above (like all distributions used in this analysis) was based on the number whose relief status and income (for nonrelief families) was known. It has been suggested that the total number of families be used as the base and all those not reporting income be considered in the highest income groups. However, since there is no valid basis for such a procedure and the resulting distribution is not smooth, the figures have been used as presented, exclusive of the unknown-income group. Clearly the number of families in the low-income groups is overstated to some extent, but it seems probable that the error is insufficient to bias seriously any estimates made therefrom.

The number of families in each size group with varying numbers of children that had incomes below the

TABLE 5.—Estimated number and percent of urban relief families of 2 or more, and urban nonrelief families of 2 or more with cash incomes insufficient to purchase a living at the emergency or maintenance levels, 1935-36

Families and persons	Estimated population, 1935-36				Estimated percent of total population		
	Total <sup>1</sup>	Receiving some relief <sup>2</sup>	Not receiving relief, with cash incomes insufficient to purchase a living at the—		Receiving some relief <sup>2</sup>	Not receiving relief, with cash incomes insufficient to purchase a living at the—	
			Emergency level	Maintenance level		Emergency level	Maintenance level
	Millions	Millions	Millions	Millions			
Families of two or more	17.0	2.8	3.0	5.4	16.6	17.7	31.8
Persons in families of two or more	63.4	12.2	13.3	23.0	19.2	20.8	36.3
Children under 16 in families of two or more	17.8	4.7	4.5	7.3	26.5	25.3	41.3

<sup>1</sup> Estimates prepared by National Resources Committee for use in the studies of family income and expenditures.  
<sup>2</sup> Relief based on a means test.

cost of each level of living was determined by interpolation. Inasmuch as the income classification was by very broad groups, and families are not distributed evenly within these groups, the families of each type within each broad income group were distributed by \$250 intervals up to \$2,500 and by \$500 intervals from \$2,500 to \$5,000, according to the distribution estimated by the National Resources Committee for all urban families in the United States. While the distribution of families within broad income groups would not be identical for families of different composition, there is undoubtedly less error involved by interpolation after such an adjustment than in the absence of an adjustment.

The families of each type that had incomes insufficient to maintain an emergency or maintenance level were totaled and the sum taken as a percentage of all families of two or more persons. This percentage was then applied to the total number of urban families of two or more in the population, as estimated by the National Resources Committee for 1935-36, to obtain an approximate count of such families. The number of persons and of children under 16 that were in families with incomes insufficient to support either level of living was obtained by multiplying the number of families of each type by the number of persons or of children, respectively, that were represented.

**Number of Nonrelief Urban Families Unable To Purchase Maintenance or Emergency Budgets**

Despite the very low level represented by the WPA emergency budget, approximately 17.7 percent of all urban families of two or more persons had cash incomes insufficient to provide the goods and services representative of that level and failed to receive any

relief in 1935-36. In other words, in addition to the 2,800,000 urban families of two or more receiving some relief, approximately 3,000,000 nonrelief urban families of two or more persons were unable to maintain themselves at an emergency level. An additional 2,400,000 families had cash incomes too low to purchase a living at the maintenance level, making a total of about 5,400,000 nonrelief urban families, or 31.8 percent of all urban families (of two or more) that were financially unable to support themselves at that level and did not receive any relief.

If it is assumed that none of the relief families had incomes sufficient to purchase a living at the maintenance level, it appears that nearly one-half of all the urban families (of two or more persons) in the United States were in this position.

The situation, of course, appears even more serious when the numbers of persons, and especially the numbers of children under 16, in these families are considered. (See Table 5.) In urban areas more than one-fourth of all children under 16, for example, were in families that received some relief, and in addition over two-fifths were in families that had cash incomes too low to provide a living at the maintenance level.<sup>35</sup>

While admittedly rough, these figures may be taken as reasonably valid estimates of the number of families with cash income too low to purchase a living at the emergency and maintenance levels, respectively. Of course, it is possible that individual families may obtain the levels of living specified with smaller outlays, by substitution of commodities that serve the same purpose as those priced but are locally less expensive, by always buying at the lowest prices instead of at regular market prices, by superior household management or by home sewing and the like, rather than by purchasing all articles ready-made. Such potential savings may, on the other hand, be more than counterbalanced by extravagances or unavoidable wastes.

<sup>35</sup> Both incomes and living costs (for an identical level) vary somewhat with region and with size of community. However, since costs tend to be relatively low in areas where incomes are relatively low, no serious error is involved in comparison of the 59-city average cost of the WPA budgets with income distributions representing all urban families in the United States. For example, while the number of metropolitan families with incomes below the average cost (in 59 cities) of the maintenance budget understates the number actually unable to afford that level of living, the number of small-city families with incomes below the same figure overstates the number unable to provide a living at the maintenance level.

As pointed out above, the 59-city average costs are probably slightly higher (since they are based on data for cities of 25,000 population or more) than the average costs for all cities in the United States would be. However, the income data used in preparing these estimates were not weighted by the population when the United States figures were obtained, and there is a marked deficiency in the sample's representation of population in cities of less than 25,000. (See Sanders, Barkev S., "Family Composition in the United States," *Social Security Bulletin*, II (April 1939), 10-11.) This deficiency tends to counterbalance any overstatement of costs represented by the 59-city average.