This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: An Appraisal of the 1950 Census Income Data

Volume Author/Editor: Conference on Research in Income and Wealth

Volume Publisher: Princeton University Press

Volume ISBN: 0-691-04102-4

Volume URL: http://www.nber.org/books/unkn58-2

Publication Date: 1958

Chapter Title: A Method of Identifying Chronic Low-Income Groups from Cross-Section Survey Data

Chapter Author: Eleanor M. Snyder

Chapter URL: http://www.nber.org/chapters/c1058

Chapter pages in book: (p. 323 - 356)

A Method of Identifying Chronic Low-Income Groups from Cross-Section Survey Data

ELEANOR M. SNYDER, BUREAU OF LABOR STATISTICS,
DEPARTMENT OF LABOR

An Estimate of the Size of the Urban Population with Low Economic Status in 1950

MEASUREMENT OF ECONOMIC STATUS

The continuing prevalence of poverty during the twentieth century, despite the rapid industrial expansion and the rise in national income and standards of living throughout the Western world, has led to numerous studies of low-income groups. These studies have brought about a general recognition of the fact that some people are poor primarily as a result of the operations of the economic system rather than because of any individual failure or inadequacy.

But present statistics do not provide reliable estimates of the size of the group whose low income has come to be considered a matter of public concern. A distribution of the population by economic status would be extremely helpful in determining public policy,[1] evaluating current welfare programs, and assessing current unmet needs. Existing empirical data on family income, however, do not permit a direct measure of economic status, since none of the comprehensive field surveys obtained income histories of identical families for more than two successive years. And, "It is now generally recognized that the incomes of individuals and families in a particular year may deviate considerably from the averages over a number of years. The distribution for one year includes individuals with incomes below their average in the lower part of the income range and individuals with incomes above their average in the higher income brackets." [2]

Classification of the population by economic status, however,

[1] Economic status may be defined as annual income averaged over a period long enough to eliminate the effect of the transitory factors that cause a family's income in any one year to deviate significantly from customary levels. Milton Friedman and Dorothy S. Brady conclude from entirely different models that the period may be as short as three years for nonfarm families. An analysis of continuous records of farm families' income indicates that the required time span may be longer than four years for farm families, and may vary by type of farm.

[2] Dorothy S. Brady, preface to Herman P. Miller, *Income of the American People,* Wiley, 1955.

would not in itself identify those whose income is "too low" or "inadequate" and who therefore are entitled to public or private aid. The dividing line between adequacy and inadequacy is not fixed. Adequacy has most frequently been measured crudely by the standards prevailing during the period of investigation; if poverty is defined as a position below the average, poverty will always exist. At present some families and individuals are considered poor simply because they possess less than others. But in absolute terms, their resources may be equal to or greater than the resources of those classified as moderately well off in an earlier period.

Many methods of scaling have been devised in the past, chiefly by sociologists interested in the measurement of social status and other aspects of social behavior. Until recent years economists devoted little attention to the problems of measuring economic status. This paper discusses the conceptual and methodological framework underlying estimates of the size of the 1950 urban population with low economic status contained in a recent study sponsored by the Franklin D. Roosevelt Foundation.[3]

The study used a concept developed in England more than fifty years ago. In identifying the poor, Booth and Rountree defined the dividing line between adequacy and inadequacy as the cost of a minimum standard budget.[4] Such a definition of poverty is in es-

[3] This study, now being readied for publication, was conducted by the author under the direction of Isador Lubin, Chairman of the Executive Committee of the Franklin D. Roosevelt Foundation. Excerpts from the report are contained in "Characteristics of the Low-Income Population and Related Federal Programs," in *Selected Materials Assembled by the Staff of the Subcommittee on Low-Income Families,* Joint Committee on the Economic Report, Joint Committee print, 84th Cong., 1st sess., pp. 43–51.

See also "The Aged Low-Income Population," mimeographed, a brief statement prepared for the use of the Federal-State Conference on Aging, in Washington, D. C., June 5–7, 1956.

Estimates of the portion of the low-income urban population whose economic status is also low were based on special tabulations of the Bureau of Labor Statistics 1950 Survey of Consumer Expenditures.

[4] In three surveys conducted in York, Rountree measured the extent of poverty in 1900, 1936, and 1950 in this way, and studied the characteristics of the population living at substandard levels. For each period, the "poverty line" was redefined in terms of current prices. The 1950 report was primarily a study of the extent to which the various government welfare and income security programs put into effect chiefly after 1936 had succeeded in reducing the number of poor families. He concluded that the 3 per cent of the working class population classified as poor in 1950 would be raised to 22 per cent if the welfare measures were eliminated. (See the following sources: B. Seebohm Rountree, *Poverty: A Study of Town Life,* London, Macmillan, 1901, and *Poverty and Progress: A Second Social Survey of York,* London, Longmans, 1942; B. Seebohm Rountree and G. R. Lavers, *Poverty and the Welfare State: A Third Social Survey of York,* London, Longmans, 1951; and Charles Booth, *Labour and the Life of the People,* London, Williams & Norgate, 1889.)

sence subjectively determined; the contents and therefore the costs vary from one "standard" budget to another. Yet most definitions of poverty are in fact based on a concept of income inadequacy. As Rountree said: [5]

"To say that a family is in poverty may mean that they have not enough available income to provide the essential needs of physical efficiency, no matter how wisely and economically they spend their money. On the other hand, it may mean that they are obviously living in want and squalor, notwithstanding the fact that their income is sufficient to maintain them in a state of physical efficiency."

Most studies of the poor imply the use of a definition of poverty similar to Rountree's first sentence. In the eighteenth and nineteenth centuries "essential needs of physical efficiency" generally were literally construed to include only purely physical requirements, without regard to social or cultural needs. During the last half-century or so budget makers have come to recognize that physical efficiency, in a productive sense, is dependent on meeting at least a minimum level of social needs also. In the United States today, minimum-level budgets, such as state-prepared budgets for working women developed to assist minimum wage boards in fixing wage rates for women, include a modest amount for recreation, contributions, reading matter, and so forth. Similarly, the Bureau of Labor Statistics "city worker's family budget," as described by its technical advisory committee, defines the necessary minimum in terms of items needed "for health, efficiency, social participation, and the maintenance of self-respect and the respect of others." [6]

The Roosevelt Foundation study adopted this broader concept of the necessary minimum. Poverty was said to exist among families unable in the long run to obtain the necessary minimum, the minimum being defined as the dollar cost of a specified budget. The poor thus are described as families whose economic resources are less than a specified minimum for a continuing period of years, and who therefore possess low economic status. Such a definition is not based on the personal opinions of the families classified as "poor," some of whom would be chagrined at being so labeled.

Families and individuals with current resources (income plus other assets) below the cost of a minimum-level budget, however, do not necessarily have low economic status, since the inadequacy of their resources may be merely temporary. In the identification

[5] Foreword by B. Seebohm Rountree to *Labor, Life and Poverty,* by F. Zweig, London, Gollancz, 1948.

[6] Report of the technical advisory committee (Hazel Kyrk, Chairman), published in *Workers' Budgets in the United States,* Bureau of Labor Statistics, Bull. 927, 1948.

of low-status families, the first step taken in the study was to eliminate all families with current income above the cost of a minimum standard budget. This procedure introduces a downward bias in the estimate since it automatically excludes from the low-status group all families whose incomes were temporarily above the budget position. The income cut-off points used were based on 1950 dollar costs of the goods and services included in two minimum budgets, a city worker's family budget and a companion budget for an elderly couple.[7] Comparable costs for families of different sizes were calculated by applying the equivalent-income scale developed by Dorothy S. Brady.[8]

IDENTIFICATION OF LOW-INCOME-STATUS FAMILIES

Identification of families whose long-term (as well as current) incomes lie below the budget line could not be achieved by direct measurement because the data were limited to a one-year period, so known relationships between current family income and expenditures for consumption goods and services were used for this purpose. Analyses of family expenditures in relation to income have shown that subsistence levels can be identified and described by such correlations.[9] The progressive levels of living are manifested in the correlations of current income and expenditures by a changing composition of the necessities of life. Engel pointed out about seventy-five years ago that the poorer the family, the greater is the proportion of its total expenditures used for food. At successively higher levels more types of goods and services are added to the list of "essentials" and a correspondingly smaller proportion of income is spent on food and housing.

Families living at the lowest level of income who lack any ap-

[7] The worker's family budget was developed by the BLS in response to a Congressional request "to find out what it costs a worker's family to live in the large cities of the United States" (see *Worker's Budgets in the United States: City Families and Single Persons*, BLS Bull. 927, 1948; and *Family Budget of City Worker, October 1950*, BLS, Bull. 1021, 1951).

The "elderly couples'" budget was designed by the Federal Security Administration to provide a means of evaluating the adequacy, in terms of need, of OASI retirement benefits and assistance programs (see "A Budget for the Elderly Couple," *Social Security Bulletin*, February 1948).

Both budgets were developed to measure the cost of a modest but adequate level of living, and have been rather extensively used by welfare agencies dispensing funds to those in need.

[8] The Brady scale is based on the correlation of family income and saving. The relationship by size of family can be described by logarithmic straight lines which are approximately parallel. The scale and its derivation are given in *Worker's Budgets in the United States: City Families and Single Persons.*

[9] R. G. D. Allen and A. L. Bowley, *Family Expenditure: A Study of Its Variation*, London, King, 1935.

preciable savings or access to credit are compelled to live within their means. But, when families are arrayed by current income, all cross-section expenditure surveys have shown that, on the average, the lowest-income groups incurred some dissaving. The average dissaving of the low-income group as a whole may be explained by the inclusion of families whose current incomes have temporarily fallen below customary levels but who did not lower their expenditures correspondingly. This typically limited response to temporary income reverses is found at both the lower and higher ends of the income distribution, producing the characteristic S-shaped income-consumption curve from cross-section studies.

Thus at the lower end of the income distribution there are differences in the patterns of consumption expenditures of families located at their customary income position and of those who expect that their low income is of relatively short duration, for example, because of short-run illness or unemployment of the chief earner. The latter group also includes younger families in which the chief earner is just commencing his working career and receiving limited earnings, but whose economic background, training, and capacities normally will lead to increasingly higher levels of income. In addition, families with low money income who possess savings or other resources that enable them to maintain an adequate level of consumption, such as the aged living on savings, should not be included in the group with low economic status.

On the average, families with customarily low incomes (that is, with low economic status) apparently do not incur substantial debts; those who dissave represent chiefly the older groups. Moreover, low-income-status families spend a substantial portion of income on the basic essentials, food and housing. On the other hand, families whose economic resources permit an adequate level of living display a higher and more diversified spending pattern and are more prone to go into debt.

Various criteria can be selected as a means of splitting the lower end of the income distribution into these two major groups. In the Roosevelt Foundation study, if one or more of the following criteria was satisfied, it was accepted as an indication that the economic status of the individual family or single consumer was adequate (all criteria applying to 1950), although current income was below the budget level.

1. Home equipment and furnishings expenditures above 10 per cent of current income
2. Purchase of a car

3. Combined food and housing expenditures above current income
4. Purchase of a home

The first criterion, which relates to a consumption category characterized by a high income elasticity, set a limit higher than the average level of expenditures of urban families on this category in 1950 (8 per cent of income) and substantially above the average level of spending of families at the lower end of the income scale. The second and fourth criteria involved relatively large outlays on items whose purchase can be deferred. The third indicated that the family was able to incur debts or dissaving equal to expenditures on items other than food or housing.

The families and single consumers not eliminated by these criteria comprised the group with low economic status as well as low current money income. It would be of some interest to test the stability of the derived distributions in this study by reclassifying on the basis of other possible criteria.

Of the four applied, greater-than-average expenditures on home equipment and furnishings was found to have the greatest relative importance. Over 43 per cent of all consumer units of two or more persons, with incomes below the budget line but excluded from the low-income-status group, were rejected on this account. Among single consumers with below-budget incomes, almost one-half were not included in the group with low economic status because their expenditures on food and housing alone was greater than their total current money income. Table 1 gives the distribution of units with low current income but not with low economic status, by criteria for classification.

According to the findings of the study, over 50 per cent of urban families and single consumers with 1950 incomes under $2,000 also possessed economic resources too limited to maintain an adequate level of living. Across the entire income distribution, almost 19 per cent had low economic status. Cumulated income distributions are shown graphically in Chart 1 for all urban units, for units with adequate economic status, and for units whose economic status was estimated to be low. The following table compares the income distribution of all urban consumer units and of urban units with low economic status in 1950: [10]

In terms of economic welfare, the distribution of a population by current income consists of three components: units with in-

[10] Based on unpublished tabulations from the 1950 BLS Survey of Consumer Expenditures. The distribution of all consumer units was calculated by the author and based on preliminary data. It is expected that the final distribution being

TABLE 1

Urban Consumer Units with Low Current Incomes but Not Low Economic Status, by Criteria for Classification, 1950

CRITERION	TWO OR MORE PERSONS *Total*	*Husband-Wife* [a]	*One Parent*	*Other* [b]	ONE PERSON
			(per cent)		
Home equipment and furnishings expenditures above 10% of current income	43.3	40.5	62.5	51.9	28.9
Purchase of a car	23.4	25.6	6.1	17.5	4.5
Combined food and housing expenditures above current income	6.6	6.1	9.6	8.3	44.3
Purchase of a home	2.1	1.9	0	2.7	0.2
Combinations:					
Two criteria	21.0	22.3	17.7	16.3	20.4
Three or more criteria	3.6	3.6	4.1	3.3	1.7
Total:					
Per cent	100.0	100.0	100.0	100.0	100.0
Number, in thousands	5,338	3,573	134	921	710

[a] Couples, and families with children.
[b] Doubled-up consumer units.
Source: Unless otherwise noted, the data used in this table and in all succeeding tables and charts are from unpublished tabulations derived from the 1950 Survey of Consumer Expenditures of the Bureau of Labor Statistics. These tabulations were prepared for the Franklin D. Roosevelt Foundation.

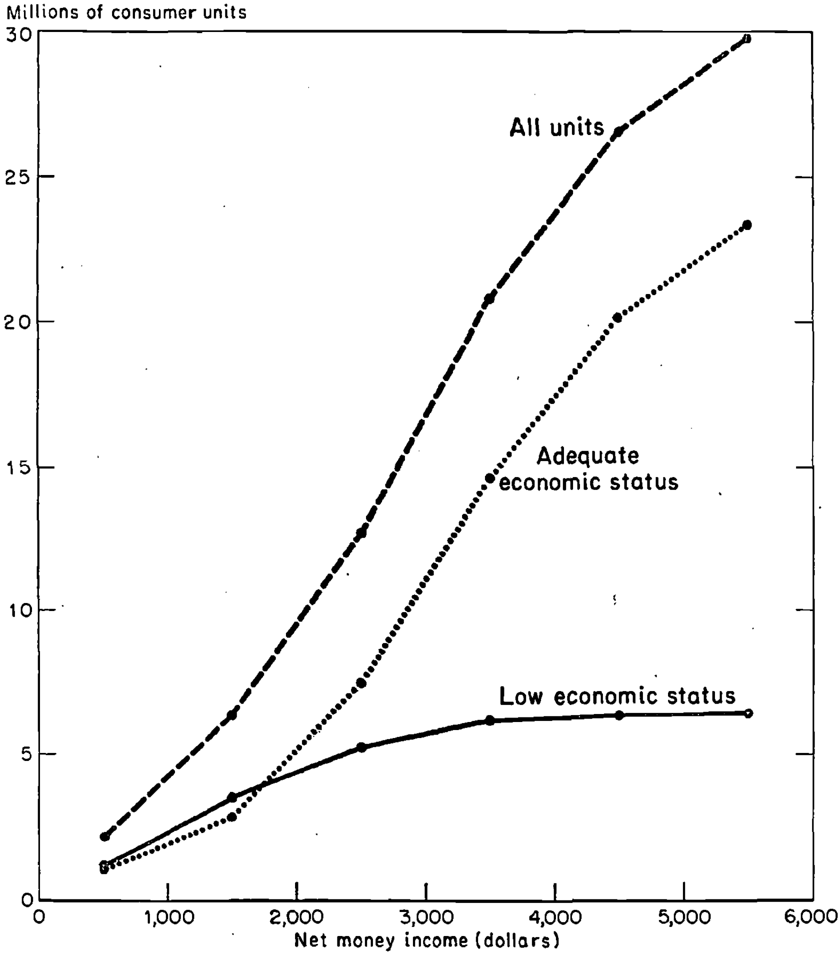
comes large enough to provide an adequate level of family living; those with current incomes below the specified standard but with customary incomes above the standard; and the group with usual as well as current incomes below the standard, that is, with low economic status. The modal income class of the three groups shifted

prepared by the BLS, as well as the estimate of the total number of consumer units, will not agree precisely with the estimate given here.

INCOME CLASS	*All Units*	*Units with Low Economic Status*
	(per cent)	
Under $1,000	6.3	17.8
$ 1,000– 1,999	12.4	37.2
2,000– 2,999	18.8	27.4
3,000– 3,999	23.9	14.7
4,000– 4,999	16.9	2.6
5,000– 5,999	9.4	0.3
6,000– 7,499	6.4	0
7,500– 9,999	3.5	0
10,000 and over	2.4	0
Total:		
Per cent	100.0	100.0
Number, in thousands	33,900	6,380

Chart 1

Cumulated Income Distribution of All Urban Consumer Units, by Economic Status, 1950

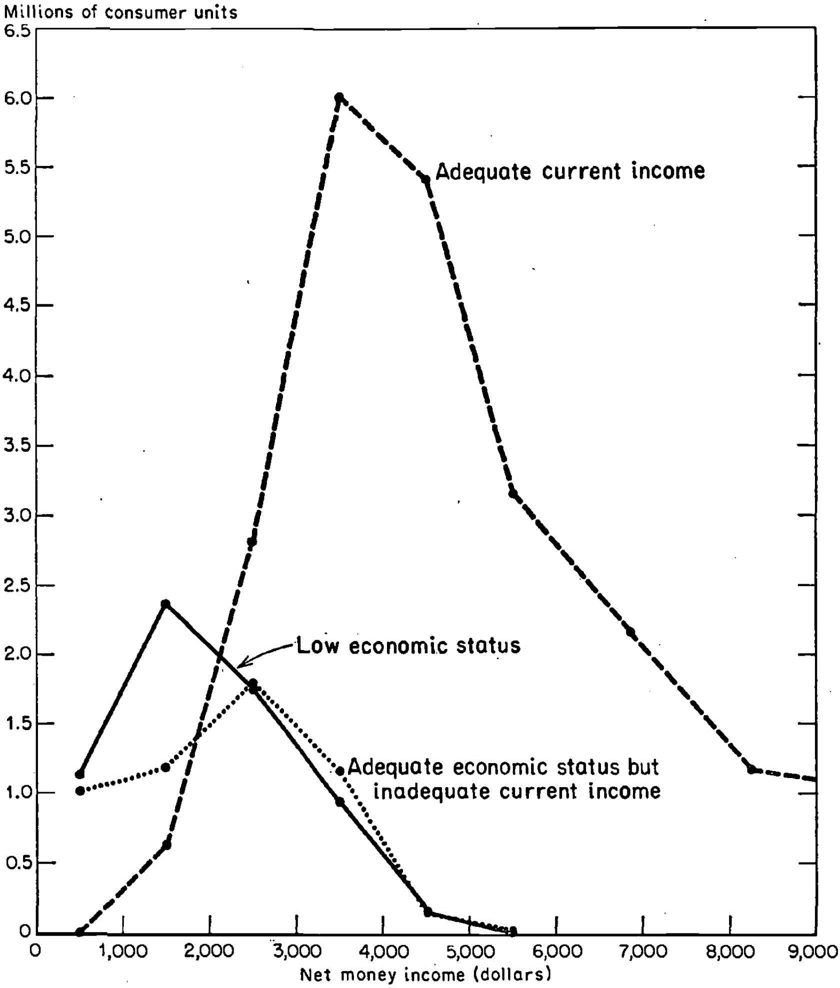


down the income scale, moving from the highest to the lowest economic welfare classification, as Chart 2 illustrates. By definition, the economic status of the third group alone was classified as low. (In Chart 1, the first and second groups were combined and identified as units with adequate economic status.)

The separate distributions by income of single consumers and of consumer units consisting of two or more persons both display a smaller concentration in the lowest income class (under $1,000) for the groups with low economic status compared to the groups

Chart 2

Components of the Total Income Distribution of All Urban Consumer Units, 1950



Note: The three separate distributions when combined equal the distribution of all urban units.

with low current income but not low status (see Table 2). The comparison indicates a concentration in the under $1,000 class of families and single persons who possessed economic assets in addition to current income. While 65 per cent of the single individuals with incomes under $1,000 were included in the group estimated to possess low economic status, only 44 per cent of the units of two or more persons with incomes below the budget line were esti-

TABLE 2

Urban Consumer Units with Current Incomes below the Budget Line, by Income Class, 1950

INCOME CLASS	TWO OR MORE PERSONS: *Low Economic Status*	TWO OR MORE PERSONS: *Adequate Economic Status*	ONE PERSON: *Low Economic Status*	ONE PERSON: *Adequate Economic Status*
		(*per cent*)		
Under $1,000	6.2	10.8	53.1	72.3
$1,000– 1,999	34.0	21.4	46.9	27.7
2,000– 2,999	36.4	38.8	0	0
3,000– 3,999	19.5	25.2	0	0
4,000– 4,999	3.5	3.3	0	0
5,000 and over	0.4	0.5	0	0
Total:				
Per cent	100.0	100.0	100.0	100.0
Number, in thousands	4,800	4,600	1,600	700

mated to have low status. In the next higher income class ($1,000–2,000) 62 per cent of the families with incomes below the budget line, and 81 per cent of the single consumers were classified as substandard.

Adequacy of economic resources was found to vary substantially by type of family; over one-half of broken families (only one parent present) had low economic status, compared to less than 15 per cent of the husband-wife families (see Table 3). It was estimated that, in all, 6.4 million urban consumer units had low economic status.[11]

TABLE 3

Urban Consumer Units, by Economic Status, 1950

ECONOMIC STATUS	TOTAL: *Number, in thousands*	TOTAL: *Per cent*	TWO OR MORE PERSONS: *Husband-Wife* [a]	TWO OR MORE PERSONS: *One Parent*	TWO OR MORE PERSONS: *Other* [b]	ONE PERSON
				(*per cent*)		
Adequate economic resources	22,200	65.5	70.9	22.8	59.8	51.1
Low current income but adequate economic status	5,300	15.7	15.6	22.0	16.1	15.2
Low economic status	6,400	18.8	13.5	55.2	24.1	33.7
Total:						
Per cent		100.0	100.0	100.0	100.0	100.0
Number, in thousands	33,900		22,900	600	5,700	4,700

[a] Couples, and families with children.
[b] Doubled-up consumer units.

[11] Preliminary family size distributions, derived from the BLS Survey of Consumer Expenditures, were applied to preliminary 1950 census population estimates to obtain an estimate of the total number of urban consumer units.

CURRENT EXPENDITURES OF LOW-INCOME FAMILIES

If the procedure described in the previous section effectively identifies those with low economic status within the low-income population, one would expect significant differences in the income-consumption relationships displayed by this group and by the group with low current income but not low economic status, as well as differences in general characteristics. When spending patterns of low-income families with and without low economic status are compared, significant differences emerge. Charts 3 through 5 show

Chart 3

Total Consumption Expenditures and Net Money Income: Husband-Wife Families with Inadequate Current Income in Large Cities, North Central–Northeast Region, by Economic Status, 1950

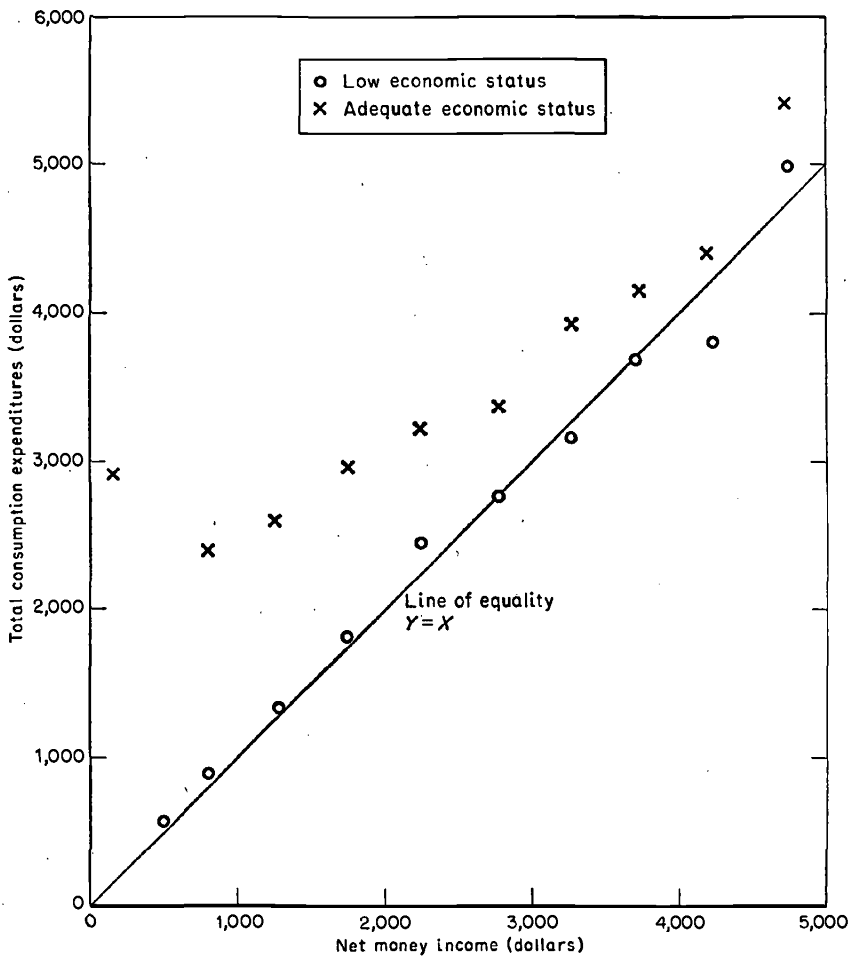
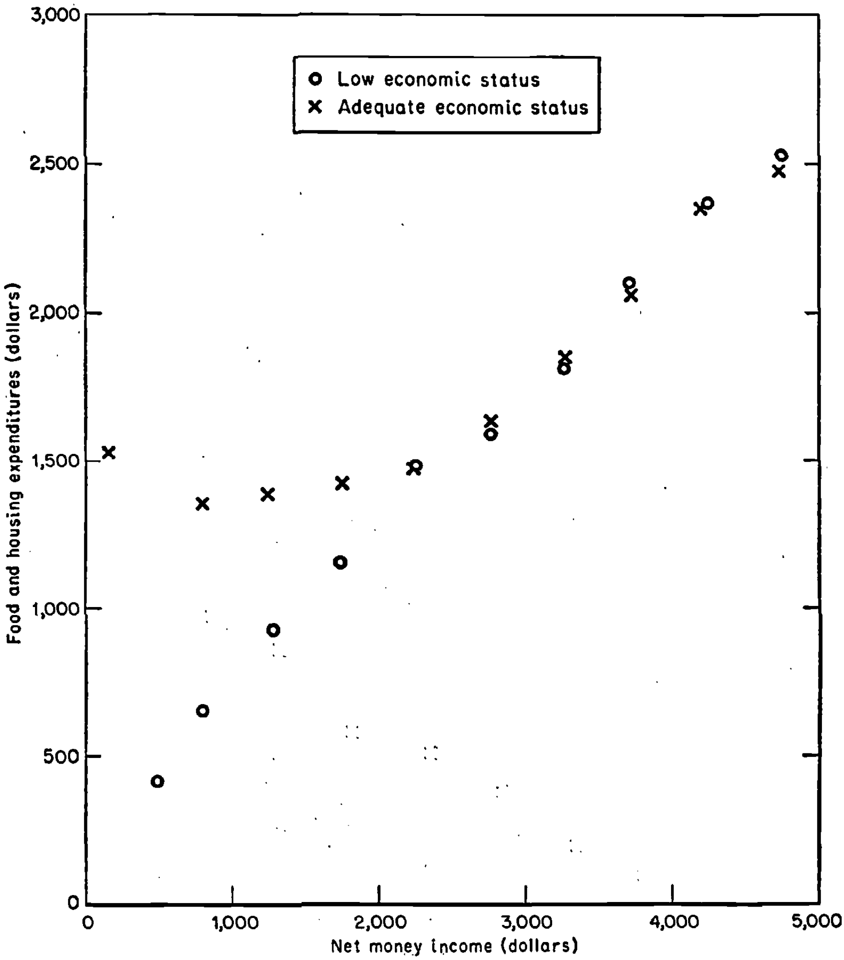


Chart 4

Food and Housing Expenditures and Net Money Income: Husband-Wife Families with Inadequate Current Income in Large Cities, North Central–Northeast Region, by Economic Status, 1950



the level of total consumption expenditures, expenditures on food plus housing, and expenditures on home equipment and furnishings of husband-wife families in large cities in the North Central and Northeast regions. The greatest variation is shown in Chart 5, which compares, by income class, average family expenditures on home equipment and furnishings. Families were excluded from the low status group if their expenditures on this consumption category exceeded 10 per cent of current income, and, on the average, those in the total group with low current income but not low economic status spent considerably above this limit (first criterion). Families classified as having low economic status, on the other hand, spent less than 5 per cent on these items. The difference reflects in part significant differences in the age distribution; the low-status group contains substantially fewer younger families, normally heavy purchasers of household durables and furnishings. For 6.7 million urban husband-wife families (including couples, and families with children) with incomes below the budget line, the following tables show (1) the proportion with low or adequate economic status in classes determined by the age of the head:

AGE OF HEAD *(years)*	*Low Economic Status*	*Adequate Economic Status*
	(per cent)	
Under 25	37.2	62.8
25–34	34.6	65.4
35–49	47.8	52.2
50–64	53.5	46.5
65 and over	59.7	40.3
Total:		
Per cent	46.3	53.7
Number, in thousands	3,100	3,600

and (2) the distribution of all these families by the age of the head:

AGE OF HEAD *(years)*	*Low Economic Status*	*Adequate Economic Status*
	(per cent)	
Under 25	4.7	6.9
25–34	20.5	33.4
35–49	33.9	31.9
50–64	23.5	17.6
65 and over	17.4	10.2
Total:		
Per cent	100.0	100.0
Number, in thousands	3,100	3,600

The comparison of food and housing expenditures of the two groups indicates that the third criterion is useful only when applied to the lowest-income families. On the average, there are no significant intergroup differences in the level of spending of families with incomes above $2,500. As shown in Table 1, relatively few families were excluded from the low-economic-status group on this account alone, although it was the most important criterion when applied to single consumers.

Chart 5

Home Equipment and Furnishings Expenditures and Net Money Income: Husband-Wife Families with Inadequate Current Income in Large Cities, North Central–Northeast Region, by Economic Status, 1950

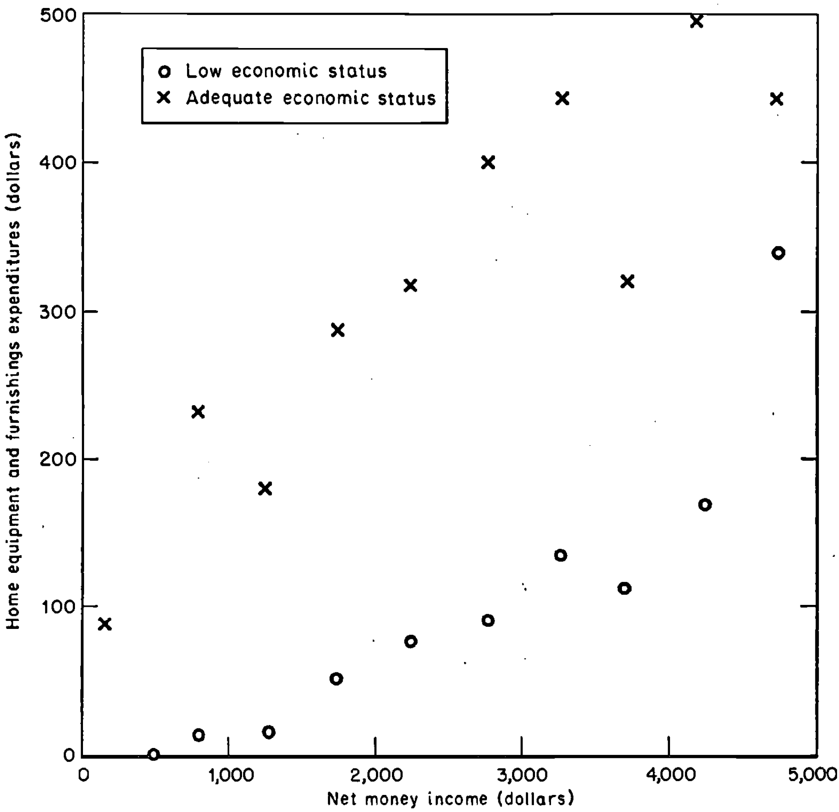


Chart 3 illustrates that expenditures of families with adequate status on the average substantially exceeded current income; this group thus drew on previously accumulated savings or incurred sizeable debts. Families with low economic status spent little if anything beyond the level of their current income; overspending is a luxury in which the "permanently poor" cannot indulge.

EFFECT OF WORKING DEFINITIONS ON ESTIMATES

Estimates of the size of the group with low economic status in any given population will vary according to the way in which the population is counted: by households, by natural families, by economic units, and so forth.[12] The Roosevelt Foundation study, since it was based primarily on data from the BLS Survey of Consumer Expenditures, used the BLS definition of "consumer unit." The BLS defines a consumer unit as a group of persons who live together and pool income; they live as a single economic unit and in most cases are related by blood or marriage. Most consumer units consist of natural families living alone, but a small proportion are doubled-up families, such as those where aged parents live with married sons or daughters. Some instances of doubling include component families who are being supported by other members of the unit. To the extent that this is true, any measure of the number of families (or single individuals) with either low economic status or low income is biased downward if the estimate being made is based on the distribution of economic units. A detailed examination thus was made of all doubled-up units, regardless of income level, to determine the current income of each of the component families.

In 14 per cent of doubled-up urban units in 1950 there was no indication that the doubling-up was due to economic necessity; every family and single individual in these consumer units had sufficient income to enable them to live alone at an adequate level of income. In another 46 per cent, the combined income of all component families, when pooled, was high enough to provide an adequate level of living for all, although in each unit the income of one or more components was below the budget line. (In relatively few instances, 3 per cent, the economics of joint living arrangements made possible a higher level of living for all components of the group.) In the remaining 40 per cent of doubled-up consumer units, the combined income of all members was below the budget line set for each size of unit. Tables 4 and 5 show the distributions of families and single persons living in doubled-up consumer units.

Husband-wife families represent about 43 per cent of all separate components (families and single persons) of doubled-up units. It seems apparent that husband-wife families also constitute the economic core of the combined unit and provide the largest contribution to its total income.[13] Of all husband-wife families living with others, 71 per cent had incomes adequate to support the family, if not the total unit; whereas only 19 per cent of the one-parent fami-

[12] See, for example, Dorothy S. Brady, "Measurement and Interpretation of the Income Distribution in the United States," mimeographed, International Association for Research in Income and Wealth, Fourth Conference, 1955.

[13] Considering only doubled-up units with low economic status, husband-wife families represented about 30 per cent of the total number of components but contributed 55 per cent of the income of the unit. Single persons (primarily the aged), on the other hand, were 37 per cent of all components but contributed less than 10 per cent of the unit income.

TABLE 4

Components of Doubled-up Urban Consumer Units, by Economic Status of the Unit and Adequacy of Current Income of Components, 1950

INCOME AND ECONOMIC STATUS	COMPONENTS OF UNIT	
	Families	*Single Individuals*
	(per cent)	
Adequate unit income and adequate unit economic status		
Incomes of components:		
All adequate	13.3	10.8
Some inadequate	47.3	51.7
Adequate	35.3	9.7
Inadequate	12.0	42.0
Inadequate unit income but adequate unit economic status		
Incomes of components:		
All inadequate	12.2	10.0
Some adequate	5.8	5.6
Adequate	4.7	0.6
Inadequate	1.1	5.0
Inadequate unit income and low unit economic status		
Incomes of components:		
All inadequate	15.5	15.8
Some adequate	5.9	6.1
Adequate	4.0	1.4
Inadequate	1.9	4.7
All components:		
Adequate income	57.3	22.5
Inadequate income	42.7	77.5
Total:		
Per cent	100.0	100.0
Number, in thousands	4,530	3,896

Note: "Adequate income" is income above the budget line; "inadequate income," below it.

lies with young children, and 23 per cent of the individuals had adequate personal incomes. A distribution within units (classified by economic status) of the separate components indicates which are the dependent groups (see Table 6).

While the BLS survey data permit an estimate of the annual income of each component family and single individual living in doubled-up consumer units, economic status can be measured only on the basis of whole units.[14] A rough estimate was made, however, of the total number of families and single persons with low economic status, including all those in doubled-up units where personal income was below the budget standard. Assuming that of those with current income below the budget line, the proportion

[14] It is not possible to determine consumption expenditures of the individual components of the doubled-up consumer unit; expenditures relate to the unit as a whole.

TABLE 5

Composition of Doubled-up Urban Consumer Units, by Economic Status of the Unit and Adequacy of Current Income of the Components, 1950

INCOME AND ECONOMIC STATUS	COMPONENTS OF UNIT: Families: Husband-Wife [a]	One Parent	Other	Single Individuals
	(per cent)			
Adequate unit income and adequate unit economic status				
Incomes of components:				
Adequate	65.4	7.6	0.4	26.6
Inadequate	15.4	9.4	0.1	75.1
Inadequate unit income but adequate unit economic status				
Incomes of components:				
Adequate	81.2	8.5	[a]	10.3
Inadequate	35.3	13.0	1.1	50.6
Inadequate unit income and low unit economic status				
Incomes of components:				
Adequate	62.1	14.6	[a]	23.3
Inadequate	30.5	17.6	2.1	49.8

[a] Less than 0.1 per cent.

Note: "Adequate income" is income above the budget line; "inadequate income," below it.

TABLE 6

Doubled-up Urban Consumer Units: Components with Inadequate Current Income, by Income Class, 1950

FAMILY INCOME BEFORE TAXES	Total: Number, in thousands	Total: Per cent	Families: Husband-Wife	Families: One Parent, with Children: All under 18 yrs.	Families: One Parent, with Children: Oldest 18 yrs. or over	Families: Other	Single Individuals: Men	Single Individuals: Women
			(per cent)					
None	1,012	28.8	4.7	21.1	0	0	32.0	48.0
$ 1–$ 999	1,231	35.0	13.4	30.8	15.1	48.8	53.2	42.2
1,000– 1,999	691	19.7	30.7	26.0	38.2	42.8	14.8	9.8
2,000– 2,999	381	10.9	28.8	16.8	35.8	8.4	0	0
3,000– 3,999	168	4.8	18.8	5.3	9.6	0	0	0
4,000– 4,999	20	0.6	2.7	0	1.1	0	0	0
5,000 and over	6	0.2	0.9	0	0.2	0	0	0
Total:								
Per cent		100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number, in thousands	3,500		580	381	408	49	617	1,474

with low economic status is the same for families living with others as the proportion which was ascertained for families living alone, the study estimated that over one-fifth of all urban families and individuals had low economic status in 1950.[15] Differences in the estimated distribution of the urban population with low economic status which result from shifting from a count by consumer units (including units of two or more families) to a count of families and single individuals regardless of living arrangement, are shown in Table 7.

TABLE 7

Percentage of Urban Population with Low Economic Status; Consumer Units, and Families and Single Individuals, 1950

	CONSUMER UNITS		FAMILIES & INDIVIDUALS [a]	
TYPE OF UNIT	*Total Number, in thousands*	*Percentage with low economic status*	*Total Number, in thousands*	*Percentage with low economic status*
Husband-wife [b]	22,900	13.5	26,400	13.9
One parent [b]	600	55.2	1,200	56.7
Other [a]	5,700 [c]	24.1	1,900 [d]	24.5
Single individuals	4,700	33.7	8,600	42.7
Total	33,900	18.8	38,100	22.3

[a] Families and single individuals living in doubled-up units counted separately.
[b] Including all children under eighteen years old.
[c] Includes one-parent consumer units with adult children, units consisting of 2 or more families, and other combinations of adults.
[d] Includes same types as listed in note c with the exception of doubled-up units.

Comparison of Income Size Distributions from Field Survey Data

While estimates of income distributions of the urban population vary according to the source, "all sources confirm the fact that, now as in times past, the lower income population is heavily concentrated among those whose current earning capacity is low relative to the rest of the population. The very aged, the infirm or incapacitated, the widow with dependent children, and the uneducated thus comprise the greater part of the low-income group." [16]

Estimates of the size of the urban population with low economic

[15] This assumption undoubtedly results in a downward bias in the estimate of the number of natural families with low economic status, in the face of available evidence that urban families double-up primarily because of economic factors.

[16] Selma F. Goldsmith, "Comparisons of Family-Income Distributions, Family Income Data from Field Surveys, Technical Note," pp. 40–43 in *Characteristics of the Low-Income Population and Related Federal Programs,* Selected Materials Assembled by the Staff of the Subcommittee on Low-Income Families, Joint Committee on the Economic Report, 84th Cong., 1st sess., 1955.

status will show some variation, depending upon which of the available distributions by current income are used. For example, in a comparison of the BLS and Census Bureau 1950 family income distributions, the greatest difference is in the "under $1,000" class. The following table gives the distribution by 1950 money income before taxes of urban consumer units (BLS) and urban families and unrelated individuals (census): [17]

Selma F. Goldsmith and others have described and explained basic differences in income distributions obtained from field surveys. This section describes in somewhat more detail the extent to which some elements of the urban population were underrepresented in the 1950 BLS Survey of Consumer Expenditures. Although only limited data are available, there is evidence that complete coverage of the urban civilian population would have yielded a larger proportion at the lower end of the income distribution than was obtained in the survey.

One major source of variation in the income distribution obtained in the BLS survey and in the census estimates of 1950 family income is the difference in the method of handling units whose composition altered between the beginning of the survey period and the date of personal interview. A comparison of BLS and census income distributions of families whose composition remained unchanged could be of value in assessing the magnitude of variation due to other factors.

POPULATION COVERAGE, 1950 BLS SURVEY OF CONSUMER EXPENDITURES

The BLS defined its coverage as follows: [18]

"This survey was designed to record the 1950 income, expendi-

[17] "Income of Families and Persons in the United States, 1950," *Current Population Reports,* Consumer Income, Bureau of the Census, Series P-60, No. 9, March 25, 1952.

	BLS	*Census*
	(per cent)	
Under $1,000	6.2	14.8
$ 1,000– 1,999	11.5	12.4
2,000– 2,999	16.6	16.6
3,000– 3,999	21.7	20.4
4,000– 4,999	17.1	13.4
5,000– 5,999	10.5	8.7
6,000– 7,499	8.2	10.7
7,500– 9,999	5.0	
10,000 and over	3.2	3.1
Total	100.0	100.0

[18] Helen Humes Lamale, "Methodology and Appraisal of Consumer Expenditure Studies," paper presented at the 115th Annual Meeting of the American Statistical Association in New York City, December 28, 1955.

tures, and savings of all non-institutional consumer units residing in United States' cities. Persons living in military camps, posts, or reservations, and inmates of private or public institutions were excluded from the survey. The *'consumer unit'* was defined as either (1) a *family* of two or more persons dependent upon a common or pooled income for their major items of expense, and usually living in the same household, or (2) a *single consumer*—a person who is financially independent of any family group, living either in a separate household or as a roomer in a private home, lodging house, or hotel. In deciding the classification of consumer units, related persons living in one household were considered as forming one consumer unit unless it was very clear that some of the group, such as married children living with parents, kept their household finances separate. Never-married children living in the household were always considered as members of the family. Also, family members temporarily living away from home, such as children at school, were included in the family. . . . In most cases, the membership of families did not change during the year; but many families were found to have had part-year family members—that is, persons who joined or left the family in 1950. Income and expenditures for part-year family members were recorded for that portion of the year when they were in the family, and these data were combined with the data for the rest of the family."

The information recorded in the survey relates to consumer units as they existed during 1950, the survey year, rather than at the time of interview in the spring of 1951. Various procedures could be devised to take account of consumer units newly formed in 1950 and units that changed in composition during the survey. An examination of the eligibility rules adopted in the 1950 BLS survey indicates that some bias was introduced into the sample. These rules automatically excluded some individuals as well as some consumer units from full representation in the expenditure study. The rules were as follows:

One Consumer Unit Split into Two or More New Units

Only one of the newly formed units was included. The units to be excluded were determined as follows:

1. If divorce or separation caused the split, the new unit with the male ex-head was excluded.

2. If divorce or separation had not caused the split, and the new units were of equal size, the new unit with the younger head was excluded.

3. If divorce or separation had not caused the split, and the new units were of unequal size, the smaller new unit was excluded. Individual members of excluded units were represented on a part-year basis if the other unit formed as a result of the split fell in the sample. In the latter case, full information was recorded for this new unit and for all members of the original doubled-up unit for the duration of its existence during the survey year.

Two or More Consumer Units Combined into One New Unit

Consumer units (and the members thereof) did not provide income-expenditure data relating to the period prior to the formation of the new unit in the following situations:

1. If two single consumers married, data relating to the husband were not recorded for the preceding period.
2. If two other types of consumer units combined in marriage, data relating to members of the former unit headed by the husband were not recorded for the preceding period.
3. If two or more units of equal size combined, not in marriage, data relating to members of the former unit with the younger head were not recorded for the preceding period.
4. If two or more units of unequal size combined, not in marriage, data relating to members of the former smaller unit were not recorded for the preceding period.

Individual Left Still-Existing Unit to Become New Single Consumer

In this case no data were recorded. However, if the unit from which he came was drawn in the sample, complete data relating to him were recorded for the period of his membership in the unit.

Approximately 2.5 per cent of the total sample was excluded from the survey on the basis of the eligibility requirements. The following table shows the distribution of consumer units excluded from the BLS survey because of ineligibility: [19]

	(per cent)
Part-year unit in 1950, due to:	
Undoubling	5.8
Divorce or separation	16.3
Marriage	29.9
New single consumer unit formed	11.5
Other reasons	19.2
Unit formed in 1951	17.3
Total	100.0

[19] Data based on a sample of eighteen survey cities in the North Central-Northeastern region.

Having ascertained that a person or consumer unit was ineligible for representation in the survey, the BLS field agent was not required to obtain any further information. In slightly over 50 per cent of the cases, however, an estimate of annual money income was obtained.[20] A comparison of the income size distribution of ineligible units reporting an annual income and of all eligible units indicated that ineligible units were concentrated at the lower income levels. This hypothesis is strengthened by the fact that 40 per cent of the ineligible units consisted of newly married couples and newly formed single consumer units. The following table shows that 64 per cent of the ineligible units had incomes in 1950 of less than $3,000, compared to 35 per cent of the eligible units for whom usable schedules were obtained: [21]

	Eligible Units	*Ineligible Units*
	(per cent)	
Under $1,000	6	14
$ 1,000– 1,999	11	25
2,000– 2,999	18	25
3,000– 3,999	23	21
4,000– 4,999	17	7
5,000– 5,999	11	4
6,000– 7,499	7	2
7,500– 9,999	4	0
10,000 and over	3	2

Underrepresentation of certain groups in the BLS survey undoubtedly explains some of the differences between the aggregate income distributions derived from these data and from the Current Population Surveys (CPS) of the Bureau of the Census.[22] Some of the units excluded from the BLS distribution but included in the CPS data undoubtedly are located at the lower income levels. Some of the units formed during the survey year or in the period between the end of the year and the date of interview consist of individuals who may not have been earners during the entire year, such as young single consumers, newly married young couples, and so forth. Unpublished tabulations of the April 1951 CPS, for example,

[20] On this point instructions given by the field supervisors apparently differed, since reporting on this question varies between cities. It is not known, of course, whether the ineligible units reporting income represent an unbiased sample in terms of the income distribution.

[21] Only 50 per cent of the ineligible units reported annual income. Both distributions are based on survey cities in the North Central-Northeastern region.

[22] For discussion on basic differences in these two sources see: *Income Distribution in the United States, Supplement, 1953, Survey of Current Business,* Dept. of Commerce; Robert Wasson, Abner Hurwitz, and Irving Schweiger, "Field Surveys of Consumer Income: An Appraisal," in Volume Thirteen (1951) of Studies in Income and Wealth; and Goldsmith, *op. cit.*

which obtained 1950 annual income data, shows the following distribution of urban families and unrelated individuals with incomes under $500:

	Total	*Families*	*Individuals*
		(per cent)	
Negative income	4.6	9.0	2.2
Zero income	36.6	33.4	38.3
$1–$499	58.8	57.6	59.5
Total:			
Per cent	100.0	100.0	100.0
Number, in thousands	2,432	851	1,581

It would be of some interest to compare the BLS and CPS urban income distributions of units which had no change in composition during the survey year. Since the Bureau of the Census obtains information on changes in family composition, presumably it would be possible to identify those units in which no change in composition had occurred. The sampling design, however, permits construction of an income distribution derived from only 50 per cent of the sample of units supplying income data (that is, two-thirds of the full CPS sample).

In the BLS survey, 14 per cent of the families furnishing usable schedules changed in composition during the survey year. Births accounted for one-half of all changes; changes resulting from the presence of a person with no earnings who was in the unit for only part of the year were about 20 per cent of all changes. Such changes in family composition had no effect on the aggregate income distribution, but changes due to other causes presumably would. The following table compares the distribution by money income after taxes of consumer units of two or more persons whose change in composition was not due to births or to the part-year presence of other members with no earnings with the distribution of all other consumer units of two or more persons:

	Changed Units	*All Other Units*
	(per cent)	
Under $1,000	2.2	2.6
$ 1,000– 1,999	5.8	7.5
2,000– 2,999	17.3	16.5
3,000– 3,999	16.6	25.1
4,000– 4,999	15.1	19.6
5,000– 5,999	12.2	12.3
6,000– 7,499	8.6	8.4
7,500– 9,999	4.3	4.8
10,000 and over	17.9	3.2
Total	100.0	100.0

It appears that a larger proportion of the units with changes may have been concentrated at the upper end of the income distribution, 43 per cent compared to 29 per cent. Further study is required to explain the differences in the two distributions. The BLS is currently undertaking a comprehensive analysis of the variations in the distributions of the urban population, by income and by other factors, which appear in the cross-section data compared to those given in the CPS. It is to be hoped that as a result of this study, apparent divergences in the two sources of data can be explained in greater detail than is now possible.

COMMENT

JENNY PODOLUK, DOMINION BUREAU STATISTICS

The preliminary findings of the Roosevelt Foundation project on low income urban families, as released in materials assembled for the Senate Subcommittee on Low Income Families and in Eleanor M. Snyder's paper, represent one of the most interesting studies of low economic status as it exists at the present time. The study departs from what Dorothy S. Brady has called "the notion of a measurable boundary marking off the range on the lower part of the income scale that can be designated substandard,"[1] a boundary now commonly set at a family income of $2,000. By the criteria of the present study only 55 per cent of urban consumer units with low economic status had incomes below $2,000, and some 3 per cent had incomes above $4,000.

The need for some definition of low economic status other than in terms of low current income is urgent since existing income distribution data tend to obscure significant changes and, on occasion, lead to absurd conclusions. Canadian experience in recent years illustrates the problem of assessing income changes from global income distributions.

CANADIAN PENSIONS AND UNDOUBLING OF FAMILY UNITS

From the late twenties until 1951 the Canadian provincial governments administered payment of monthly pensions to persons aged seventy and over who could demonstrate need. In 1951 slightly more than 300,000 of approximately 650,000 aged persons were receiving provincial old age pensions. In January 1952, under new

[1] Dorothy S. Brady, "Research on the Size Distribution of Income" in Volume Thirteen (1951) of Studies in Income and Wealth, p. 30.

legislation, the federal government began payment of monthly pensions ($40) to all those seventy and over who had fulfilled a specified period of residence in Canada regardless of their economic status. By 1954, 98 per cent of persons seventy and over were receiving these monthly payments, which were also extended to persons aged sixty-five to sixty-nine who could meet a means test.

The effect of this change becomes clear when the income distribution in 1951, the last year before the universal pension plan, is compared with that of 1954, the third years of the plan's operation. Between these years the population aged sixty-five and over increased from 1,085,000 with 300,000 receiving old age pensions to 1,180,000 with approximately 800,000 receiving them.

During this period the total number of family units in the country increased by 320,000. (The definition of family unit in Canadian income statistics is identical with that of the Bureau of the Census and includes unattached individuals.) A classification of families by major source of income indicated that three-quarters received their incomes from wages and salaries or self-employment. The remaining 80,000 family units derived their incomes from unearned sources such as investments, pensions, and transfer payments, the last predominating. Thus, the increase in the number of families reporting transfer payments as a source of income was almost as great as the increase in the number of persons aged sixty-five and over.

These statistics indicate that the liberalization of social security payments to the aged has led in Canada as elsewhere to undoubling family units. The impact on the income distribution is most evident at the lower levels: of all family units with incomes under $1,500, 38 per cent had incomes originating in pensions, investments, and transfer payments in 1951, 43 per cent in 1954. The changes in the composition of income at the lower income levels were more striking. In 1951 approximately 50 per cent of the aggregate income of family units with incomes below $500 came from government transfer payments; by 1954 this ratio was 68 per cent. For incomes of $500 to $1,000 the ratio increased from 29 to 39 per cent; and for incomes of $1,000 to $1,500 the change was from 18 to 27 per cent. In fact transfer payments became a significant component of income for family units with income up to $3,000, although the percentage of aggregate cash income originating in transfer payments only increased from 5.2 to 5.8 per cent.

Such an undoubling of family units may change the economic status of both the new family units and of the units with whom they previously resided. Miss Snyder has pointed out that in 60 per cent of all doubled-up consumer units, incomes were high enough to provide an adequate level of living for all, and that in a significant portion of cases, doubling up did not appear to be a matter of economic necessity. Our own estimate for Canada, for 1954, indicated that the average income of doubled-up family units was higher than the incomes reported by other families consisting of married couples and single children; about 50 per cent of doubled-up family units reported incomes of $5,000 or more. These statistics suggest that the majority of doubled-up families in Canada may be attaining an adequate standard of living.

This three-year period was also characterized by substantial increases in earnings and little change in prices; the proportion of families with low incomes in 1954 was lower than in 1951. Probably the decline would have been greater if undoubling had not been occurring, but it is difficult to isolate the effects of rising real incomes from the effects of the extension of social security payments.

MINOR COMMENTS ON MISS SNYDER'S PRESENTATION

Miss Snyder's contribution in presenting the problems of identifying low economic status in a new and original context demonstrates that equating low incomes with low economic status is unjustified, although without studies such as Miss Snyder's general users of income data will undoubtedly continue to do so.

It would be useful to have more details of the methods employed in the study. Miss Snyder might also have assessed the methods employed and commented on whether, now that the study is nearing completion, changes in approach could be usefully incorporated into future studies.

The original Bureau of Labor Statistics survey collected data from some 11,000 families, and my impression is that the estimates in her paper are based upon a subsample of these 11,000 schedules. One cannot help wondering, for example, about consumer units with incomes above $5,000 classified as having a low economic status. It would be useful to have more detail on the characteristics of families with low economic status and those with low current income but not low economic status, and further analysis by family size, age group, occupation, and so forth, cross-classified by income size.

Perhaps the most important problem is that data of the type collected by the BLS in the 1950 survey become available at only infrequent intervals, and the 1950 data are available only for urban families. Continuation of this work would necessitate the regular collection of such data.

PETER O. STEINER, UNIVERSITY OF WISCONSIN

The Roosevelt Foundation study is open to two basic questions. First, are the data on the lowest groups in the income distribution subject to biases significantly different from those affecting the income distribution as a whole? Second, can data collected for low-income groups properly be held to reflect the group with low economic status?

While Miss Snyder has chosen to discuss only the second point, I will begin with a few comments on special biases in the data for low-income groups.

BIASES IN THE DATA

Field survey data measuring income are subject to errors whose systematic effect is to understate the true aggregate of incomes. Do such biases operate with special force at the low end of the income scale? While missed income might not affect the percentage distribution by size of income, evidence presented in other papers at this conference strongly suggests that it does.[1] The size of the lowest-income group appears to be significantly overstated in census income distributions, for several reasons.

Given a pervasive tendency of reporting units to understate their incomes, it is a matter of simple logic that this tendency will be most pronounced at the extremes of the income distribution. Intermediate class intervals will gain frequency from the class intervals above and lose frequency to the classes below, but the lowest-income class will have a net gain.

A second source of special bias is the relatively greater importance of unearned income for low-income groups. At least for the aged,[2] the absence of earnings is the strongest correlative of low income. But underreporting of income other than earnings is significantly greater than underreporting of earnings.[3] Therefore low-income groups will be subject to an additional downward bias

[1] See especially Selma F. Goldsmith's paper in this volume, Table 4.

[2] The aged are the only low income group on which I can claim competence. Lest this be regarded as too damaging a limitation, it may be recalled that in 1954 some 46 per cent of the unrelated individuals with income under $1,000 were sixty-five and over, and 31 per cent of the families in this income bracket had heads sixty-five or over.

[3] Evidence to this effect is found in other papers in this volume. See Selma F. Goldsmith's Table 2; also the paper by Pritzker and Sands, who consider that "Perhaps the most striking finding of the PES is that the deficiency of income recipients reported in the census was caused primarily by the failure to record income from sources other than earnings" (p. 231). Evidence from other sources is consistent with this finding.

in their reported total incomes, and to further exaggeration of their size.

These two factors are probably the most important, but two others may be briefly mentioned. While any definition of income must be to some extent arbitrary, differences between the census definition and those used by taxing authorities and by state and local welfare authorities lead to honest confusion about what is income. The census distinctions between regular and irregular contributions, between direct and indirect contributions, and between use of savings and use of the interest on savings add to the difficulties. Since much of the income of low-income groups is at or near the definitional margins, a further special bias may be operative. Finally there is the question of deliberate underreporting. Incentives exist for this at all income levels, but the low-income recipient of public assistance or relief may feel especially reluctant to give information which may jeopardize his eligibility.

Whether or not these factors suffice to explain the apparent overstatement of the size of low-income groups in field survey data, I hesitate to interpret income data for low-income groups as if they had the same order of accuracy as those for the population as a whole.

MEASURING LOW ECONOMIC STATUS

Miss Snyder's concern about the data on low-income groups, if I understand it correctly, is that the size of the group with low economic status is overstated because of year-to-year variation of income. Her definition of low status involves income below specified budget levels in *each* of a series of years. (I will accept for the sake of argument both this conception of low economic status and the particular budget levels she has chosen, though I have reservations about both.) Is her procedure for measuring the size of the group with low economic status by reducing the number below budget levels according to the four criteria listed in her paper satisfactory? I think not.

Particularly disturbing is her third discriminant, the exclusion from low economic status of those whose combined food and housing expenditures were above total reported current family income. This is indeed "an indication that the family was able to incur debts or dissaving equal to expenditures on items other than food or housing." Miss Snyder appears to believe that this procedure serves to eliminate from the "hard core" low-income groups those whose current money income is low over a period longer than a year or so, but who possess *adequate* economic resources of other types such as savings. But will it not also eliminate those with dissaving whose total level of expenditures is inadequate, that is, that falls below the prescribed budget levels? In fact, many of the aged living in part on savings are doing so at levels of consumption less than adequate, and Miss Snyder's procedure eliminates from the low-status group many of those with the very lowest status.

I have been supposing above that income is adequately measured. If however, there is any systematic tendency for understatement of income, small amounts of "apparent dissaving" to meet living expenses can result merely from errors in reporting income and can result in a classification of "not low status" on purely synthetic grounds.

A more sensible procedure for identifying the group whose incomes are temporarily low, and who are relying on non-income sources to maintain an adequate level of consumption, would be to compare the appropriate budget level with the level of total expenditures, and to eliminate from the low-status group only those whose expenditures exceeded the specified levels of adequacy. (This is based on the hypothesis of consumer behavior that those with temporarily low incomes maintain their consumption levels at or above the budget level; it also substitutes a single discriminant about the *level* of consumption for a series of discriminants concerning the *kind* of consumption expenditure.)

In the follow-up survey of the aged [4] intended to gather data for such an appraisal, including especially a measurement of the amount of dissaving for meeting living expenses, findings on the use of savings (dissaving) do not conform to the pattern assumed by Miss Snyder. While the practice was frequent among the aged (about 15 per cent), its distribution was J-shaped, with 20 to 25 per cent in amounts under \$200 and more than half under \$500. Typically the amounts were small in relation to total income, but even those for whom it was the principal source of income had small total expenditures, frequently well below budget levels.[5]

In the following comparison I chose a group of the aged in urbanized areas closely similar to Miss Snyder's and used a budget level directly comparable with hers. I computed the percentage with *incomes* below the budget level and then recomputed for the percentage with *expenditures* (including those financed by dissaving) below that level. This procedure, followed separately for couples, for unrelated males, and for unrelated females, shows in

[4] For a description of the survey see Peter O. Steiner and Robert Dorfman, *The Economic Status of the Aged,* University of California Press, 1957, Appendix A.
[5] Cf. Steiner and Dorfman, *op. cit.,* pp. 115–119.

each group that only 5 to 6 per cent of those with incomes below budget levels had total expenditures above the same budget levels. Compare this with Miss Snyder's table on page 333 which shows 40 per cent of the class with head aged sixty-five and over and with incomes below budget levels ranked as having adequate economic status. This is a difference in kind. To assume that use of savings relieves the economic distress of many of those with low incomes is not safe.

Miss Snyder's procedure errs (if my criticism is valid) in the right direction; it compensates for errors that tend to overstate the size of the low income group. It does so, however, in a way that introduces a systematic bias into the makeup of the low-status group. A cruder, but probably more satisfactory procedure would be to reduce budget levels arbitrarily to allow for understatement of incomes.

ROBERT SUMMERS, YALE UNIVERSITY

Miss Snyder attempts to distinguish between households which ordinarily enjoyed an adequate plane of living but had temporarily depressed incomes in the survey year and households which typically had low incomes. Since her income data covered only one year, she resorted to the expedient of classifying households on the basis of their spending behavior. Information about household stocks rather than flows might provide a better guide, but as she has pointed out, there are many variables that conceivably could be used and we should not expect her paper to exhaust the subject.

Of her four criteria for splitting off temporarily low income households from hard core ones, the third, in which expenditures on food and shelter are compared with income, is probably best. It surely selects out the low-income households which had higher incomes before the survey year. Whether or not the higher incomes were above the minimum budget levels is not determinable, of course, but except for one-person households, the criterion does not seem to be significant.

The other three criteria bear discussion. The purchase of a home in the survey year by low-income households was uncommon, so it provides very little discrimination. If the purchase of a home should disqualify a household from membership in the hard core, then house ownership would also be a good disqualifying attribute conceptually, and it would provide better discrimination because it is more common. Data on home ownership were collected in the survey so this alternative variable could easily be used.

Similarly, possession of an automobile is as good, or as bad, a variable as automobile purchase. Cars are no longer a luxury and models providing transportation, if not comfort, are available at very low prices. In fact, in 1950 around 40 per cent of the cars households bought cost less than $500. This amount is not formidable to households with access to auto finance credit. Such access depends primarily upon the income, debts, and past credit worthiness of the household, and only incidentally upon the number of dependents in it. A household may be categorized low because of the substantial needs inherent in a large family and still qualify for credit. Thus the purchase of a car is within the reach of hard-core households but whether or not they really buy is an empirical question. Ruth P. Mack reported in her 1948 *Review of Economics and Statistics* article that at any income level, households that previously had higher incomes spent more on cars and their upkeep than households that had had steady incomes. This supports Miss Snyder's criterion, though Mrs. Mack referred to amounts spent. Instead of using the criterion $0 paid for a car versus some positive number of dollars, it would be better to use a more reasonable breaking point, even if it had to be guessed at arbitrarily.

The criterion involving a household's spending more or less than 10 per cent of its income on household furnishings and equipment is satisfactory in principle since it takes into account the dollar amount spent.

Perhaps the problem of identifying hard-core households by means of criteria like these can be attacked with the relatively sophisticated technique of discriminant analysis. The technique requires data on low-income households whose hard-core status is known, however. The Survey Research Center's reinterview samples which contain brief income histories would be suitable. Using Miss Snyder's income criteria as well as I could, I sorted out of a 1951–1952 reinterview deck the data cards for households with low income status for the two years. I did not apply discriminant analysis to the reinterview deck, but I did check the proportion of two-year low income households, practically hard core households, which spent more than 20 per cent of their disposable incomes on cars and consumer durables. The outlays were net of trade-in values. The proportion I found, about 12 per cent, suggests that Miss Snyder's cut-off figure of 10 per cent for household furnishings may be low. With more complete information about the reinterview households, one could check on her other criteria.

IRWIN WOLKSTEIN AND MARIE M. DELANEY,
BUREAU OF OLD-AGE AND SURVIVORS INSURANCE

Miss Snyder's use of certain types of expenditures for the classification of consumer units by economic status was based on Allen and Bowley's study published in 1935, which showed that subsistence levels of living can be identified and described by relationships existing between current family income and expenditures for consumption goods and services. The purchases involved in her discriminants 1 and 3 are spread fairly evenly over a calendar year and hence can conceivably be related to a current year's family income. However automobiles and houses (discriminants 2 and 4) are items purchased relatively infrequently (certainly not annually), and we therefore feel that they do not necessarily have any direct correlation with current family income but rather with assets or expected future income.

Assets and expected future income are obviously significant in determining economic status. Unfortunately, the two discriminants employed are very inadequate measures of them. The *ownership* of a car or house and their value seem superior in this respect to their actual purchase. Also these discriminants may be more critical in rural than in urban areas since a car may be a vital means of transportation in the country, not a deferrable purchase as Miss Snyder states.

As defined we feel the discriminants indicate expenditure status for the year 1950, not economic status. They have a tendency to place consumer units with high savings rates into the inadequate economic status group. They do not give sufficient weight to assets, both tangible and intangible, a particularly important consideration if the income data is necessarily limited to one year.

Despite these shortcomings her criteria may be satisfactory if they discriminate as well as or better than equally available alternatives. However, we recommend that the stability of the distributions obtained on the basis of these discriminants be tested by reclassifying the consumer units on the basis of alternative ones which take into account the points we have raised.

GEORGE GARVY, FEDERAL RESERVE BANK OF NEW YORK

By Miss Snyder's technique units with low economic status whose income was temporarily higher in 1950, perhaps because of a windfall, would not be included in her estimate. No doubt techniques similar to those used in the Roosevelt Foundation study could be developed to identify units with a current income above the budget minimum but with low income status. One important difficulty is finding discriminants to separate units that have permanently moved from a low to a higher status from those that are expected to revert to a low income status. To make this distinction, discriminants based on the budget structure of low-income units might prove unreliable because there is usually a lag before units that have emerged from a low-income status adjust their spending patterns. Even though the number of low status families in any particular period receiving income above the minimum budget cost is probably relatively small, it might increase in periods of full and more-than-full employment when marginal members of the labor force and retired workers are temporarily drawn into full or part-time employment.

Miss Snyder's technique for identifying low status units is incomplete. Also, the validity of the discriminants 2 and 4 is questionable because two types of specific spending actions are used in isolation. Purchase of a car or a home is considered sufficient to disqualify a family from being considered as having a low income status because they involve "relatively large outlays on items whose purchase could be deferred." This is not necessarily so. Consider, for instance, a home-owning family whose head has retired. In making adjustments to a low income status, such a family may sell its home, now too expensive to maintain, and buy a smaller one. The discriminant used does not distinguish between purchases of homes by renting families and purchases by units already home owners. Even this distinction would not be sufficient; one would have also to know whether a family was moving to a less or more expensive house.

An analogous case exists with respect to cars. Since a car is a necessity for most families, the mere replacement of one jalopy by another can hardly be considered as an act suggesting an above-low-income status. Perhaps distinction between the purchase of a new and a used car would help. However, I am not even sure that the purchase of a car by a family not previously owning one could be justified as a discriminant if the cost of the car is low.

The use of more refined discriminants may have been precluded by the nature of the source data used in the Roosevelt Foundation Study. However, this should not have prevented Miss Snyder from discussing the limitations of her discriminants. The use of the purchase of homes and cars as criteria raises the question of the interpretation of low income status when it is combined with relatively large holdings of consumer capital. It also raises the broader question of whether low income status can be defined without reference to assets.

Normally ownership of assets is reflected in income since most types of assets are income producing, so that the pairing of low income with large assets will occur only in those exceptional cases in which assets are held uninvested (for instance, as demand deposits). Accumulation of relatively large amounts of consumer capital (including housing) before retirement is not unusual, and disregarding the ownership of such assets (which reduces current expenditures) may lead to biased estimates of the low-income-status population.

My remarks concern, however, the methodology developed by Miss Snyder and not her substantive findings. Modification of discriminants 2 and 4 in the sense suggested would presumably add relatively few families to the low-status classifications. And I do not believe that many additional such families would be shifted to that part of the population which has a current income exceeding the budget minimum.