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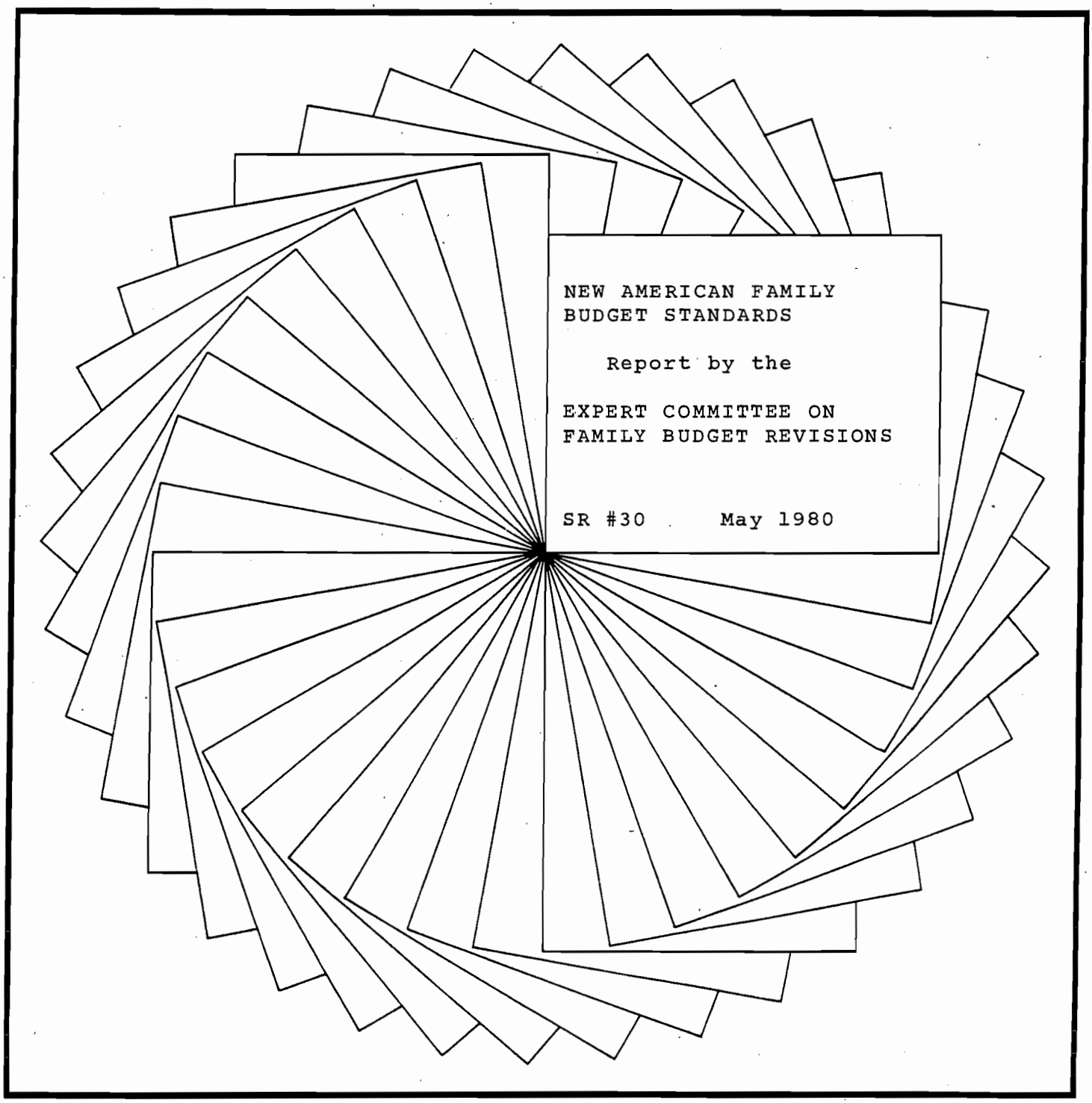

University of Wisconsin-Madison

Institute for Research on Poverty

Center for the Social Sciences at Columbia University

NEW AMERICAN FAMILY BUDGET STANDARDS

Report by the

EXPERT COMMITTEE ON FAMILY BUDGET REVISIONS

FINAL DRAFT
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EXPERT COMMITTEE ON FAMILY BUDGET REVISIONS

May, 1980

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COMMITTEE MEMBERS

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Ms. Anne Draper	Labor Research Advisory Council Department of Economic Research American Federation of Labor and Congress of Industrial Organizations
Prof. Marilyn Dunsing*	University of Illinois School of Human Resources and Family Studies
Mr. Lawrence Gibson	Business Research Advisory Council Marketing Research, General Mills
Prof. James E. Jones, Jr.	University of Wisconsin Law School
Ms. Bette Silver Mahoney	System Development Corporation
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Prof. Eugene Smolensky	University of Wisconsin Department of Economics
Prof. Barbara Starfield	The Johns Hopkins University School of Hygiene and Public Health

* Dr. Dunsing was only able to attend the 2nd, 3rd and 6th meetings of the Committee and resigned prior to submission of the Draft Report.

** Dr. Riley was unable to attend the first two meetings and resigned prior to the third meeting because of pressing duties in connection with an appointment at the National Institute on Aging in Washington, D.C.

P R E F A C E

The report that follows is the result of the Expert Committee's work over the past year and a half. During that time, the Committee held eleven two-day meetings and systematically reviewed a great deal of statistical and other material relating to the issue of defining and calculating levels of living. A complete record of this material, and minutes of all the meetings, will be on file at the Bureau of Labor Statistics by the end of 1980. This preface is used to present the Committee's basic approach to the task of recommending how the Family Budgets Program should be revised and to summarize briefly the kinds of material we reviewed.

The General Approach Taken in this Report

The Committee recognized from the start that the role of establishing standards of living by which the economic performance of individuals and society can be measured is a presumptuous one. There is no economic or other theory that allows this to be done in a scientific manner. It is also apparent that there can be no one uniquely superior approach to the task of developing standards for evaluating levels of living.

We have proceeded on the general assumption that the idea of a standard of living has some everyday meaning to ordinary people and that they have found insight, based on experience, into the costs of different levels. The acceptability and usefulness of explicitly stated standards depends, in our opinion, on how successfully such statements capture the popular notion of what it takes to live moderately or comfortably, or at any other

specific level.

This committee has tried to find a pragmatic solution to the problem of giving full weight to the subjective and value-laden requirements of any "normative" standards while providing methods by which the standards can be updated and maintained in an objective and non-discretionary manner. We have, therefore, chosen as the basis for our budget standards specific concepts that can be objectively and regularly measured in surveys of expenditure behavior of households. The committee has exercised its judgment--and finally judgment has to be the basis for expressions of values--in the choice of relative but quantitative budget standards corresponding to qualitative verbal descriptions of living levels.

It should be noted that the judgment is focussed on the total level of expenditures corresponding to alternatively described standards. We have not approached the problem by separately considering the food, housing or other budget parts. We feel that it is important to both observe and to publish how typical families allocate their resources at the various living standards. But we do not find it within our competence or mandate to certify particular spending patterns as "correct" or optimal. The evidence shows substantial variation in patterns of spending at each level of total spending, and we regard such differences as reasonable and usually advantageous adaptations to individual circumstance or preference.

Besides showing the most up-to-date information on how spending is allocated at different levels, we would urge that a wide variety of evidence and indicators be developed to further characterize or translate the abstract dollar totals into more directly interpretable features

of life at various levels. Diets, housing descriptions, and automobile usage that can be afforded in the several budgets are one example of such illustrative material. Other types are introduced in Chapter IX.

We are, additionally, prepared to go beyond observed expenditure levels and explore the hypothesis we find intuitively appealing, namely, that people themselves are the experts when it comes to living norms--and that their assessment of what it takes to get along, what it takes to be comfortably well off, and so on, be tapped directly. There are currently no data collection programs that make this a feasible option in the near future. Our recommendations, therefore, also address the need for research and data collection to test the feasibility and evaluate the merits of this approach to the specification of standards.

Our recommendations urge substantial changes in the methods of determining "normative" budget standards. We abandon the use of a fixed list of commodities, we do not require price data for updating family budgets beyond the all-item CPI, but we do urge an interarea price index program. We fix the lower and higher norms in relation to the central standard. But at the same time we have endeavored to realize the spirit of the family budgets in the context of new opportunities for timely observation of family spending behavior and with a greater degree of simplicity and clarity about what the budgets represent. We hope that they will be accepted and found useful for the basic purposes served by the existing program, and that future publication of analytic surveys using the Family Budget framework will eventually broaden and enhance their usefulness.

Material Reviewed by the Committee

The economic literature relating to revealed preference theory and demand theory were reviewed by Watts, Smolensky and staff. Prior to making its recommendations, the Committee investigated in detail the methods and evidence that lie behind the present family budget program. This involved examination of theoretical principles, the history of actual practices, and analysis of expenditure data from recent surveys. Professor Kelvin Lancaster of Columbia University, who is an authority on this aspect of economic theory, met with the Commitee and discussed the problems of inferring unique budget levels or equivalence statements from observations of household behavior. Several papers and articles by Professor Robert A. Pollack of the University of Pennsylvania were also very helpful.

Extensive tabulations and regression analyses were carried out on the Consumer Expenditure Survey data, at Wisconsin, Columbia and the Bureau of Labor Statistics. Part of this was to secure more complete description of current spending behavior, and part of it was a finally fruitless effort to find viable equivalence statements for inter-family and inter-spatial adjustments.

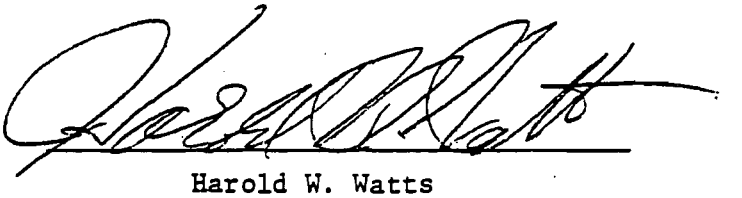
Ms. Betty Peterkin from the Department of Agriculture met with the committee and enhanced our understanding of the preparation of the USDA Family Food Plans and their costs as regularly published in the Family Economics Review (USDA, Washington, D.C.) Testimony was also heard from Helen H. Lamale, who supervised the most recent revision of the Family Budgets, and Mollie Orshansky, who has had experience with the retired couple budget as well as abundant recent experience with the determination of the poverty thresholds, the other major normative living standard used in this country.

Papers were commissioned and prepared for the committee by Dr. Steve Dubnoff, Center for Survey Research, Boston, Mass., Dr. Myra Strober

of Stanford University, and Dr. Claire Vickery of the University of California, Berkeley, covering areas in which they have special expertise relevant to our deliberations.

Observers present at all of our meetings included Mrs. Eva Jacobs, Bureau of Labor Statistics, and Mr. Milo Sunderhauf, Office of Federal Statistical Policy and Standards, Department of Commerce. Occasional observers included Dr. Lee Bawden and Dr. Richard Wertheimer of the Urban Institute, and Dr. Mark Roberts, Research Department, A.F.L.C.I.O.

Finally, the interchange no less than the analytical exposition provided a joint learning process for the committee and staff whereby our combined experience served to augment the experience of each of us.



Harold W. Watts
Chairman

A C K N O W L E D G E M E N T S

The committee has been ably assisted and informed by Dr. Marjorie Honig and Dr. Jacques van der Gaag, who have served as staff associates working with Watts and Smolensky, respectively. The critically important computational and related empirical analysis has been carried out by Linda Moeller and Frederick Sturm with the assistance of Denis Mangan at Columbia, and by Robert Dalrymple at the University of Wisconsin-Madison. We are very grateful for the support provided by the Bureau of Labor Statistics; Mr. Mark Sherwood provided information on details of current procedures, Dianne Woodbury and Douglas Love supplied valuable regression estimates of food expenditure behavior. The drafting and editorial assistance of Ms. Felicity Skidmore has been of decisive importance in getting the report prepared. Finally, we have all been helped in a great many ways by the efforts of Ms. Lillemor Engberg who has served as administrative associate for the committee, provided transcription services for our meetings, and typed the many documents that are required for such a committee. We are extremely grateful for her patience, persistence and high standards.

SUMMARY OF RECOMMENDATIONS

I. Number and Specification of Budget Levels

The committee recommends that four American Family Budget Standards be established and named as follows:

1. The Prevailing Family Standard. This Standard reflects the living levels achieved by the typical or ordinary family and is to be determined by the median expenditure level for the two-parent, two-child family, referred to throughout this report as the reference family. In the judgment of the committee, this standard affords full opportunity to participate in contemporary society and the basic options it offers. It is moderate in the sense of lying both well above the requirements of survival and decency, and well below levels of luxury as generally understood. This median expenditure should be calculated for the immediate future from the 1972-73 Consumer Expenditure Survey (CES), updated according to the procedure described in Recommendation III. When data from the new Continuous Consumer Expenditure Surveys (CCES) become available, the median should be estimated directly from those data on an annual basis.

2. The Social Minimum Standard. This Standard is to be set at half the Prevailing Family Standard. In the judgment of the Committee, this Standard lies in a boundary zone below which social concern has been traditionally and properly directed to potential issues of deficiency and deprivation. At this level and increasingly at even lower levels, the likelihood of damage from inadequacies in one or another aspect

of material subsistence grows correspondingly.

3. The Lower Living Standard. This standard is to be set at two-thirds of the Prevailing Family Standard, and continue in the tradition and at the approximate level of the current Lower Budget. Maintaining a family at this level requires frugal and careful management, and leaves little room for choice. In the judgment of the Committee, this Standard represents a level below which it is increasingly difficult to maintain what Americans regard as an acceptable standard of living.

4. The Social Abundance Standard. This Standard is to be set at 50% higher than the Prevailing Family Standard (or, equivalently, three times as high as the Social Minimum Standard). In the judgment of the Committee, this Standard lies in the boundary zone that marks progress significantly beyond the ordinary into expenditure levels that afford choices in the luxury categories of consumption.

II. Interfamily Equivalence Scales

The committee recommends that the equivalence scales implicit in the updated Orshansky poverty thresholds, with smoothly declining increments up to family size 12 and with a uniform increment thereafter, be adopted. Such scales enable the four Living Standards for the reference two-parent, two-child family to be generalized to families of different sizes. Aged one- and two-person families should be included as separate family types. Substantial research failed to yield alternative equivalence scales based on observed expenditure behavior that were robust and stable enough to provide a superior alternative.

III. Movement of the Standards Through Time

The committee recommends both an immediate and longer-run procedure for moving the Living Standards through time.

1. In the immediate future, an estimated or extrapolated series of expenditure should be used, which begins with observed expenditure from the 1972-73 CES, and projects this up to date in proportion with median income data from the Current Population Survey (CPS), after adjustment for variations in tax and saving rates.

2. As soon as the CCES data can be used to calculate the reference standard directly, this should be done on an annual basis.

3. Whichever method is used, short-term reductions in the "real" levels of the Standards should be prevented by using as a lower bound the real level of the standards in the previous year. This "ratchet" provision is to insulate the standards from transitory or cyclical declines. For years when the ratchet has been triggered the Standards will still, of course, reflect any price change since the previous year.

IV. Detailed Expenditure Categories, Types of Household to be Budgeted, and Derivation of Gross Income Estimates.

The committee makes the following recommendations with respect to detailing the Standards.

1. Expenditure allocations should be estimated and shown in detail comparable to the current categories of spending for household types:

The reference two-parent, two-child household,
The aged couple,
A nonaged single person,
The one-parent, two-child household,
The two-parent, five-child household,
The aged single person.

These expenditure allocations should be shown for all four living standards for each of the three household types. For the last three household types they should be shown for the three lower levels only.

2. These expenditure allocations should be derived from the most recently available expenditure survey data; these will reflect as fully as possible prevailing consumption behavior at different points in the expenditure distribution.

3. Life insurance and charitable contributions should be added to all consumption budgets, such outlays being set at 4½% of total current consumption.

4. While the Standards for all nonaged household types specified in Recommendation IV.1 are developed for the nation as a whole, taxes should be estimated on a state-by-state basis. The taxes are to include all Federal, state, and local income taxes (averaged in states with heterogeneous local taxes) and payroll taxes. The taxes should be estimated on the assumption that all income is from wage and salary earnings, that only the standard deductions and exemptions are used, and that couples file jointly.

5. Further research is called for in several areas to specify and estimate adjustments for non-consumption components of the total budget. These components are generally applicable to special situations and are not recommended as routine augmentations of the expenditure budget for current consumption. The specific components are:

a) Elements of life-cycle savings programs consistent with stable living standards in retirement.

b) Extra work expenses for the additional worker in a two-earner family.

c) Costs of care for children or other persons requiring continuous care when all potential caretakers are employed.

d) Costs of fringe benefits financed (in part) by payroll deductions.

V. Interarea Differentials

The Committee recommends that a fixed-weight interarea price index be constructed for basic categories such as food, housing, transportation, and services. This should be published for all the cities for which the CPI publishes a separate index, and for regions and city sizes.

The Committee wishes to stress that this is not an appropriate basis for measuring cost-of-living differences. Severe analytical problems compounded by weak data have prevented us from developing a set of interarea standard of living differentials. In our judgment, the basis for the existing differentials is insufficient. We recommend that continuing research efforts be made to derive appropriate differentials. In the meantime, since our efforts provided no guidance as to the direction of such differences, or even whether they exist, we recommend that area differentials be restricted to state and regional variations in tax burden and climate (the latter measured by differential fuel use correlated with historical degree-day averages).

VI. Research into the Possibility of Directly Eliciting Public Conceptions of Living Norms

The Committee recommends that reference standards for our society be systematically pursued through direct questions to the populace.

An appropriate set of questions should be included in a national survey, and the data thus collected should be analyzed by the Bureau of Labor Statistics (BLS) staff on the basis of methodologies already developed. In our judgment there is excellent promise that such an approach can be used to develop the basic set of Standards and to construct a scale of equivalences among different family types. The principle that members of a free society are the real experts on the norms of living in that society is one that the committee adheres to and would like to see implemented as effectively as possible.

VII. Presentation, Publication, and Dissemination of Budget and Related Distributional Data

The committee recommends that the revised Family Budget Program described in this report be embodied in an annual report providing the latest updated levels of the Budgets, and their current allocation among expenditure categories, and the state by state augmentation to gross income totals. This report should be called The Economic Status of American Households. This report should also provide current distributions of families and individuals relative to those budget levels, with breakdowns by region, ethnicity, age, family structure, and other appropriate factors. Such data should come both from the CCES and the planned Survey of Income and Program Participation (SIPP) provided that cooperation can be secured with the Social Security Administration for prompt tabulations.

Finally, the report should summarize the results of studies relating to the implications of the various Standards in terms of food expenditure or intake, health status, educational achievement of children, and other measures of well-being, whenever such studies are undertaken.

CHAPTER I

THE FAMILY BUDGETS PROGRAM

The Family Budgets Program is a set of three statistical series, published annually by the Bureau of Labor Statistics (BLS), estimating the annual costs of purchasing three hypothetical market baskets of goods and services.[1] These three market baskets are intended to represent different standards of living or "budget levels." The levels are now referred to as Lower, Intermediate and Higher, and are styled for two types of family: a four-person family headed by a prime-aged working man, and a retired couple.

The BLS budgets were designed specifically as measures of income adequacy, and this use determined the concepts and controlled the methods of compiling them. Although indexes based on these budgets have provided place-to-place and intertemporal comparisons of living costs, the budgets are concerned with norms and have been described as benchmarks for evaluating the adequacy of income. They are among the most popular of the BLS statistical series, and are widely used for analytic as well as administrative, legislative, and programmatic purposes.

This chapter reviews some of the history underlying the Family Budgets, describes their major uses, and summarizes the procedures by which they are constructed.

1. The Historical Basis for the Family Budgets

Normative budgets for wage earners and their families have, since the late nineteenth century, figured importantly in social policy formula-

tion. Concern for the condition of women and child workers stimulated construction of the first such Federal budget. A Congressional investigation pursued under a 1907 law led to the preparation in 1909 by the BLS of the first quantity-based budgets--that is, budgets built up by specifying, first, quantitities of goods and services and then costing them out. These budgets were designed to reflect a "fair" standard of living in cotton-mill communities.

World War I, which brought rapid and sharp increases in the price level, also brought the construction of the Consumer Price Index (CPI) in connection with a shipyard labor dispute and the further development of various worker budgets. The National War Labor Board (NWLB) declared that all workers, including common labor, had the right to a "living wage" and that, in fixing wages, minimum rates of pay should be established which would ensure the subsistence of the worker and his family in health and reasonable comfort. During this period worker budgets were a factor in NWLB decisions as well as in arbitration decisions in labor disputes.

Additionally, budgets were used in the setting of pay scales by governmental bodies for their own employees in, for example, New York City, Philadelphia, and the State of California. In connection with the Federal Classification Act of 1920, the BLS prepared quantity and cost budgets for a Government worker's family of five, a single man, and a single woman. Declaring it "even more important" to establish a quantity budget for the "working man's family," the BLS in June 1920 issued a "Minimum Quantity Budget Necessary to Maintain a Worker's Family of Five in Health and Decency."

The 1921 budgets for the California Civil Service Commission were

for laborers', clerks', and executives' families and for unmarried clerks (male and female). These were continued for many years as the "Heller Committee Budgets," published annually (beginning in 1923) for the San Francisco area by the Heller Committee for Research in Social Economics of the University of California. The laborer, clerical, and wage earner family budgets were published through 1949. Then, beginning in 1953, they were replaced by two budgets--one for the family of a "salaried junior professional and executive worker" and the other for the family of a wage earner. These were last priced in 1961.

During the Depression decade of the 1930s, the Works Progress Administration (WPA) prepared budgets to help determine how much to pay workers on work relief in different parts of the country. The WPA in 1936 published quantity budgets for both a "basic maintenance" standard and an "emergency" standard of living. It also prepared a report (1937) on the costs of these budgets in 59 different cities. The intercity costs related to a family of four ("best described as the unskilled manual worker type") consisting of a man and wife, with a boy age 13 and a girl age 8. "The man wears overalls at his work." These budgets represented an effort to determine the cost of maintaining an adequate standard of living "at the lowest economic level."

Also during the Depression years, when the early state minimum wage laws for women were revived (after the reversal in 1937 of a 1923 Supreme Court decision declaring them unconstitutional), a number of states prepared budgets for single working women. In aid of this enterprise, the Department of Agriculture (USDA) issued a 1938 "how-to-do-it" booklet entitled "Factors to be Considered in Preparing Minimum-Wage Budgets for

Women." A second edition ("Minimum Wage Budgets for Women: A Guide to Their Preparation") was issued in 1944.

The WPA budgets were adjusted for price increases by the BLS through 1943. During World War II, they entered into the implementation of the President's Executive Order concerning allowable wage increases to "eliminate substandards of living."

World War II also brought about a mass individual income tax to help finance the war. This level reached well down the income scale. The basic exemption for a single person, $1,000 in 1939, was cut to $500 in 1942. The minimum tax rate of 4% in 1939 shot to 23 percent in 1944. In 1939, taxpayers with incomes under $5,000 supplied about 10 percent of the total yield of the income tax; by 1947 their share was nearly 48 percent.

It was in this context that a Congressional Appropriations Subcommittee in 1945 requested the BLS to revamp the old WPA budgets. There was concern over the extent to which Federal income taxes reached down into lower level worker incomes and also over the fact that, in collective bargaining, employers had sometimes used the relief-type budgets as leverage against wage adjustments for "average" workers. The City Worker's Family Budget that emerged as a result in the BLS publications in 1948 was for a "modest, but adequate" standard of living, and applied to urban working families generally rather than to any particular occupational group.

The explanatory material accompanying the new City Worker's Family Budget (priced for 34 cities) envisaged at least two additional uses beyond

traditional ones in wage determination, or the newer concern about the impacts of Federal income taxes on worker families. One was the idea of defining a "standard of living" in America and measuring how it changes over time. The other was the use of the budgets as a general tool for identifying segments of the population living at less than satisfactory living standards and developing programs to improve the situation.

After the original release of the cost figures for March 1946 and June 1947, the budget was repriced for October of each year from 1949 through 1951. Pricing was discontinued at that time on the grounds that the consumption data on which it was based (mid-1930's and supplementary wartime surveys) were no longer appropriate, particularly since fresh material would be available from the 1950 Consumer Expenditure Survey. An "Interim Revised" budget was not released, however, until August 1960 (priced in 20 cities for October 1959).

In 1963, uses of standard budgets and needs for additional budgets were reviewed at length by an Advisory Committee on Standard Budget Research which had been convened by the BLS, in preparation for revisions to be based on the Consumer Expenditure Survey (CES) of 1960-61. The main thrust of the Committee's review clearly emphasized the need for additional <u>levels</u> of family budgets to meet a greater variety of user needs, as against development of budgets for additional family types or expansion of work on place-to-place living cost differences. The recommendations of this Committee were the basis for developing the "Lower" and "Higher" budgets using data for the spring of 1967 and first published in 1969.

In the years since 1963, the development of the "poverty line"[2] has overtaken a large portion of the envisaged use of the budgets for identifying segments of the population toward which special public concern should be accorded. The annual "poverty count" has become an institution in itself, and programs seeking to abate poverty generally have used the "poverty line" as a principal point of legislative reference.[3]

When the BLS budgets appeared in 1969, however, the Lower Budget quickly became a competitor of the poverty line, despite official protestations that this budget was not intended to represent minimum subsistence. When President Nixon unveiled proposals for a new Family Assistance Plan (FAP) in late 1969, the National Welfare Rights Organization moved to establish the BLS Lower Budget as the basis for calculating the level of guaranteed family income. The December 1969 White House Conference on Food, Nutrition, and Health was persuaded to publish a Task Force Action Statement endorsing a $5,500 guaranteed income floor for a family of four, also based on the BLS Lower Budget.

In 1970 the Economic Stabilization Act was passed establishing wage and price controls. In December 1971, Congress amended the Act to exempt from controls the wages of the "working poor," defined through reference to the BLS Lower Budget level. The Commissioner of Labor Statistics one month previously had announced his intent to replace the existing budgets by a general place-to-place price index and descriptive data on consumer expenditures. This intent was not carried out, however. Instead, the decision was announced to update the budgets

TABLE I.1.

EXAMPLES OF

USES AND USERS OF THE FAMILY BUDGETS

A. Legislation Affecting Eligibility for Federal Funds

1. CETA Title VI Section 608, Public Service Employment

Public service job applicants must meet the requirement that family income be less than 70 percent of the BLS Lower Family Budget adjusted for regional and metropolitan and urban differences and family sizes. Currently, about 50 percent of the 4.9 billion dollar allotment is affected by this criterion.

2. CETA Title III Youth Bill (Demonstration Projects)

Eligible youth must be unemployed and from a family whose income is not above 85 percent of the BLS Lower Budget.

B. Other Legislative Citations or References

1. Public Law 93-203 (CETA) Section 312d

"The Secretary shall develop methods to establish and maintain more comprehensive household budget data at different levels of living, including a level of adequacy, to reflect the differences of household living costs in regions and localities, both urban and rural."

2. Public Law 93-275

The Federal Energy Administration shall perform economic analyses of proposed action, including the effect of such actions on "low and middle income persons as defined by the BLS."

3. Wage Hour Field Regulations Handbook

Low wage "are underpaid employees whose most recent normal standard hourly rate is not more than the hourly rate equivalent of the total annual budget for Lower Living standards."

C. Labor-Management Negotiations

1. Service Employees International Union, Firfighters Union, Meat Cutters Union are among the unions that have specifically referred to wage negotiations in requesting family budget data from the Bureau of Labor Statistics. Several other unions in both public and private employment regularly make use of the budgets.

2. The Bendix Corporation requested information about the construction and concept of the Family Budgets in order to counter union wage demands.[a]

a) Use of the budgets by the business sector, however, seems to be generally sporadic and infrequent.

D. Geographic Wage and Salary Adjustments by Private Firms

Example: Western Electric establishes geographic differentials for salaried workers based on BLS Family Budget interarea indexes.

E. State and Local Welfare Determination

Data are used at the state and local levels to develop eligibility standards for welfare programs as well as to assess family needs.

Examples:

1. Community Council of Greater New York estimates a welfare budget by adjusting the BLS lower budget.

2. Division of Income Maintenance, Department of Social Services, State of New York, adjusts lower budget to determine welfare eligibility and allocations.

3. Department of Children and Family Services, State of Illinois, requests budgets for use in determining "suitable adoption subsidy amounts for families applying to adopt hard-to-place children."

F. Scholarship Aid

The Moderate Budgets are used by the College Entrance Examination Board and the Lower Budget by the American College Testing Service to compute expected parental contributions and establish eligibility for scholarships.

G. Private Legal Actions

The budgets are frequently used in making alimony and child support determinations.

H. Government Legal Actions

The Internal Revenue Service uses the budgets to establish "excess spending" in tax evasion cases.

I. Individuals

The budget data are requested daily to assist individuals involved in relocating to new jobs or retiring to examine inter-area cost-of-living differentials.

annually through the use of the Consumer Price Index, pending further study of the Family Budget Program.

In 1973, the Comprehensive Employment and Training Act (CETA) included a provision mandating the Secretary of Labor to "develop methods to establish and maintain more comprehensive household budget data at different levels of living, including a level of adequacy, to reflect the differences of household living costs in regions and localities, both urban and rural." In addition, several provisions of the Act were referenced to the Lower Level Budget.

This Committee was formed as a response, in part, to the CETA mandate and, in part,to the growing realization that the BLS Family Budgets Program can and should be improved at both the conceptual and empirical levels.

2. Major Uses of the Family Budgets and Related Statistics

Family Budget Statistics, as can be seen from the examples given in Table I.1, are used for a wide variety of analytic,. administrative, legislative, and programmatic purposes. Four elements, in particular, make them conducive to such uses: (1) an income norm or expenditure norm embodying a standard or level of living for a typical family type; (2) a basis for making standardized comparisons among different family types (the equivalence scale); (3) a basis for making comparisons over time; and (4) a basis for making comparisons among areas. For many purposes, the official poverty measure shares the first three elements with the Family Budget series. Although the technical construc-

tion of the two measures is different, the common elements have caused the two series to be examined as alternatives.[4] Because of the similarities and, more important, because they are sometimes used as alternatives, this discussion will include some description of the uses of the poverty statistics as well as those for the Family Budgets.

For both analytic and other applications, the income or expenditure level regarded as a threshold or boundary is the feature most often focussed on. Since both the Family Budget levels and the poverty measure have often been condemned as being either too high or too low, depending on the philosophical views and circumstances of their potential users, multiples of the budget levels have been used in legislation and sometimes in administrative applications.

The equivalence scale is also frequently used for both analytic and other purposes to adjust income or spending rates to allow for different family sizes. The spending or income requirements for a constant level of well-being are generally believed to vary with family size and composition. The existing scales published for the Family Budgets and the scale implicit in the poverty thresholds are thus widely used to "normalize" income data so that heterogeneous families can be analyzed together.

Comparisons over time may be more important analytically than they have been for administrative, legislative, or programmatic purposes. They are useful as an evaluation standard and for assessing changes over

time in the way populations are distributed according to well-being. Some of the administrative, legislative, and programmatic uses refer to the most recent published levels and so automatically incorporate an index of price change, since both the budgets and the poverty line are updated by means of Consumer Price Index components.

The last element, providing a basis for making comparisons across areas, is unique to the Family Budgets, but its use is limited because not all areas are covered. It is also conceptually controversial. Despite the difficulties, as the only measure of cost-of-living differences between areas, the Budgets have been used perforce where such comparisons are required. If the data for more areas were available and the conceptual problems solved, still greater use would be made of the geographic comparisons in both analytic and other applications.

The analytic uses originally envisioned for the Budgets were primarily to identify the population group living below the standard or standards (or at a point in time as well as across areas and over time) and to estimate the size of the population below them. Historically, in fact, analytic uses of the Family Budget series appeared to have been more important than the administrative applications. For example, of the three uses of the Budgets cited by the Advisory Committee on Standard Budget Research in June 1963, "guidance of administrative determination" is mentioned last after the "appraisal of the economic condition of groups or the total population" and "evaluation of the need for and the effect of specific laws and programs." Since the development of the official

poverty line, however, which was developed specifically as an analytic measure, use of the Budgets for estimating the size of the population subgroups below various levels of living has declined. The administative, legislative, and programmatic uses by goverment, in contrast, have grown and appear still to be growing.

Many Federal programs are designed to help the poor, needy, low-income,or disadvantaged. Their administrative need for income eligibility standards, therefore, leads them usually to focus on the Lower Level Budget or the poverty measure.

Administrative, programmatic, or legislative definitions, although frequently related to the statistical definitions, also often have features designed to reach a specific subpopulation. Among the oldest administrative use of the Family Budgets is as an aid to State and local governments in determining "needs" for families under the Public Assistance titles of the Social Security Act. Section 402 of the Social Security Act specifies that the states, through a state plan, must determine family need. Both the standard and the percentage of the standard paid to an eligible family varies by State and more detailed adjustments of the Budgets are sometimes used in estimating the welfare standard. For example, the Community Council of Greater New York estimates a welfare budget by adjusting the BLS Lower Budget, and the Division of Income Maintenance, Department of Social Services, State of New York, adjusts the Lower Budget to determine welfare eligibility and allocations.

Some federal programs are devised to aid areas, others are devised to aid families or individuals directly. In the former case, some measure is necessary for use in an allocation formula to distribute the appropriation--typically a fixed amount--among the geographical subunits designated by the legislation. In the latter case, a cut-off may be used as an income eligibility criterion for individual applicants. While the official poverty measure has been used both in allocation formulas and as an income eligibility criterion, most of the applications of the Lower Family Budget have been as an income eligibility criterion.

The basic dichotomy between allocative and eligibility uses is not necessarily exclusive; a single legislative act may contain both an allocative formula for distributing fixed program funds and eligibility criteria for determining which individuals in each area are entitled to receive assistance. Furthermore, entirely different measures or levels may be used in the various stages of one program, as with the Comprehensive Employment and Training Act (CETA). Allocation of CETA funds to geographical areas, for example, is based on a single dollar threshold. Public service job applicants (Title VI. Section 608), however, must meet the requirement that family income be less than 70 percent of the BLS Lower Family budget adjusted for regional, metropolitan, and urban differences, and by family size. And youth in demonstration projects (Title III) must be unemployed and from a family whose income is not above 85 percent of the BLS Lower Level Budget.

In addition to the Lower Level Budget and the official poverty measure, a direct percentage of median income has been used to define program eligibility. For instance, Title XX of the Social Security Act (social services) adopted 80 to 115 percent of median family income in each state as its standard. Title II of the Housing and Community Development Act of 1974 used 50 and 80 percent of median family income in the "area" as its eligibility criterion.[5]

3. How the Family Budgets are Constructed

The Family Budgets Program provides estimates of the three budget levels intended to represent distinct standards of living; interarea indexes of "living costs" based upon these budget estimates, and adjustment factors to convert the budgets for family sizes and types other than the 4-person family and the retired couple.

The hypothetical market baskets of goods and services that form the basis for the Family Budget calculations include food, transportation, clothing, personal care, medical care and certain other consumption items, gifts and contributions, and (for the family type headed by a worker) occupational expenses. They also include Federal income taxes, Social Security, and state and local personal income taxes.

The four-person family type for which Family Budgets are estimated lives in an urban area, is well established, and comprises a husband, age 38, employed full time; a wife who does not work outside the home; and two children, a girl of 8 and a boy of 13 years. The other family type is a retired couple consisting of a husband and wife, age 65 or

over, who are assumed to be living independently, in reasonably good health, and to be able to take care of themselves.

Estimates of the costs of the budgets have been published for the urban United States and 40 urban areas plus four regional averages.[6] Beginning with the 1979 estimates, 15 of the areas will be dropped because of the new CPI sample. The 25 that remain are the self-representing cities. By calculating ratios of the new cost of the budgets, it is possible to make comparisons among the different areas. Also within the scope of the Family Budgets program, the BLS publishes equivalence scales which allow for the adjustment of the total consumption cost in the four-person family budgets for various other family sizes and types. The dollar levels of the latest current Budgets, the cost indexes, and equivalence scales, are all presented in U.S. Department of Labor #80-278 "Autumn 1979: Urban Family Budgets and Comparative Indexes for Selected Urban Areas," and U.S. Department of Labor #78-588 "Three Budgets for a Retired Couple, Autumn 1978."

The Manners of Living Represented by the Family Budget Market Baskets. The market baskets for the three budgets are precisely specified as to the quantities and types of items included.[7] Together with the assumptions regarding the reference family, these market baskets characterize a certain manner of living. The following brief description of the manner of living may help to set the Family Budgets in perspective for persons unfamiliar with the program.

The four-person family of the Budgets possesses average inventories of items such as clothing and house furnishings, and the market baskets reflect annual replacement rates for these items.

For the Intermediate Budget, the family lives in either a five room, one bath rental unit or a five-six room, one or one-and-a-half bath home purchased six years ago.[8] The renter family's market basket contains items for contract rent,[9] fuel and utilities, replacement rates for a refrigerator and a range, and an insurance policy for household contents. The homeowner family's market basket contains principal and interest payments, property taxes and homeowner insurance, fuel and utilities, repairs and maintenance, and replacement rates for a refrigerator and range.

If the family owns a car, it would have been two years old when the family bought it used and will be kept for four years before being sold and replaced by another two-year old car. The market basket also contains goods and services associated with maintaining and operating this car for a year plus an allowance for its eventual replacement. In some of the larger urban areas, a certain percentage of these families are assumed not to own a car, but rather to use public transportation. The market basket thus contains an allowance for a certain number of rides on public transportation.

The family is covered by a basic hospital and surgical insurance policy obtained by the husband at his place of employment, and the family makes a certain number of visits to the doctor and dentist each year.

The manner of living for the Lower Budget differs from the manner just described. The family does not own a home; its members live in a rental unit without air-conditioning. Public transportation is used more; if a car is owned, it is older. Also the family performs more services for itself and presumably takes advantage of free recreational facilities.

The manner of living described by the market basket in the Higher Budget (compared to the manner described for the Intermediate Budget) allows more families to own their homes and some families to own new cars. Also, more services and household appliances and equipment are bought.

In general, the differences in the manners of living described by the three budgets are varied according to assumptions such as those discussed above, plus the inclusion in the market baskets of different quantities and qualities of goods and services.

Methodology Used to Determine the Budgets. As already mentioned, in the spring of 1945 the BLS was directed by the Labor and Federal Security Subcommittee of the House Committee on Appropriations to determine "what it costs a worker's family to live in the large cities of the United States." To carry out this mandate, the BLS, with the assistance of a Technical Advisory Committee, chose to develop a list of goods and services which could be used to determine the dollar level required for the maintenance of health and social well-

being, the nurture of children, and participation in community activities. A budget was thus produced to describe a "modest but adequate" standard of living for a city worker's family.

The cost of this budget was estimated for March 1946, June 1947, October 1949, October 1950, and October 1951. Employing the same principles as in the mid-1940s but with methodological changes a new list of goods and services was derived for an autumn 1959 interim revision of the budget.

With certain exceptions, the general methodology employed in the mid-1940s and in 1959 in order to establish the budget level representing a "modest but adequate" standard of living was again used in 1966 to derive a budget level for a "moderate" standard of living. In 1967 the BLS developed for the first time Lower and Higher Budgets in response to user needs and renamed the "Moderate" Level Budget as the Intermediate Budget. Because the Lower and Higher Budgets simply represent a scaling down and a scaling up of the Intermediate Budget, it is adequate here to focus mainly on the methodology employed to derive the Intermediate Budget.

The Intermediate Budget. The derivation of the Intermediate Budget basket made use of information from two sources: 1) expert judgments concerning the requirements for physical health and social well-being; and 2) analytical studies of the choices of goods and services made by consumers in successive income intervals.

Standards of adequacy were available for the food-at-home and the shelter components of the budget. But in neither case do the

expert-based specifications themselves determine a unique cost level. The food-at-home component for the Intermediate Budget is derived from nutritionally adequate diets for individuals in different sex-age groups, as developed by the Food and Nutrition Board of the National Research Council and translated into the food plans at various costs by the U.S. Department of Agriculture. The moderate cost food plan developed in 1964, for example, was chosen for the food-at-home component of the Intermediate Budget that was established in 1966.

The shelter component of the budgets is based upon recommendations originally made by the American Public Health Association (APHA) and the U.S. Public Housing Administration (PHA) which describe sleeping space requirements, essential household equipment (including plumbing), adequate utilities and heat, structural condition, and neighborhood location. For the rental unit (an unfurnished five-room unit) a complete private bath, and for the homeowner unit a five- or six-room house with one or one-and-a-half baths was specified. Both the rental unit and the owned home had to be in sound structural condition; have a fully equipped kitchen, hot and cold running water, electricity, central or other installed heat; be located in neighborhoods free from hazards or nuisances; and have access to public transportation, schools, grocery stores, and play space for children. For the Intermediate Budget the average for the middle third of the distribution of housing prices meeting the requirements was chosen.

For other components of consumption--food-away-from-home, household furnishings and operations, transportation, clothing, personal care,

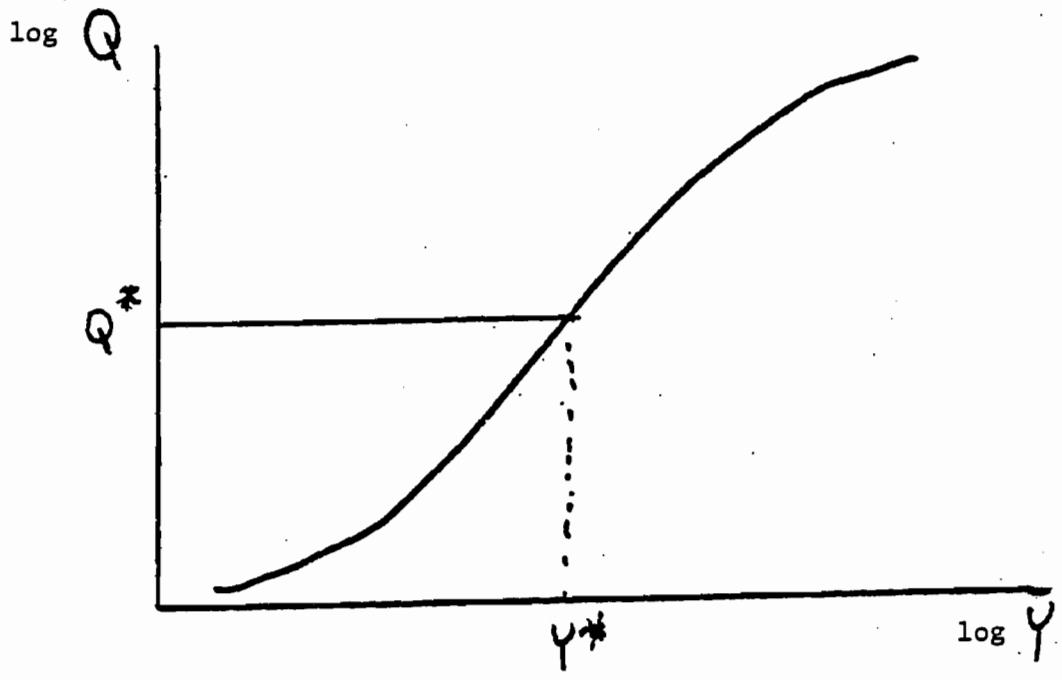
medical care, reading, recreation, education, tobacco, alcohol, miscellaneous consumption, gifts and contributions, and life insurance--no quantity standards have been formulated by experts. Consequently, those responsible for compiling the family budgets have used data on the actual spending patterns of families as collected in the BLS 1960-61 Survey of Consumer Expenditures. To derive the quantities of goods and services appropriate for a standard meeting expressed social goals, they used a statistical procedure known as the quantity-income-elasticity (q-i-e) technique for several of these classifications.

The q-i-e technique was chosen on the basis of the following rationale. It was anticipated, both from experience and conjecture, that expenditure data would show, at successively higher levels of income, at first a growing rate of expenditure increase on a group of related items and subsequently a declining rate of increase. Moreover, if expenditure as a function of income followed such a pattern, and if initially quantity rather than price or quality were responsible for the high expenditure, then quantity as a function of income would have an "S" shape such as the one shown in Figure I.1.

The inflection point of an S-shaped curve could then be interpreted as the point on the income scale where families stop buying "more and more" and start buying either "better and better" or some other, less essential, item. In other words, the urgency of adding more quantity has apparently diminished at or beyond the point of inflection. Locating this income level would allow the budget makers to select the quantities

FIGURE I.1

AN ILLUSTRATION OF THE MAXIMUM QUANTITY-INCOME-ELASTICITY



of the particular group of items purchased at this level and use these quantities to make up the budget quantity list that describes the standard of living. Hence the q-i-e technique sought to determine the income level at which elasticity, defined as the percentage change in the quantity purchased divided by the percentage change in income, reached a maximum.[10] The associated quantities were then used to form the budget list.

Once the Intermediate Level Budget market basket was derived, the construction of the Lower and Higher Level budgets proceeded by a scaling up and a scaling down of the amounts called for in the Intermediate Budget. The Lower and Higher budgets were developed in response to user needs for dollar levels that were either higher or lower than the former Moderate Budget. But they were not separately specified to meet the needs of alternatively named living levels.

For the components constructed with the q-i-e approach, quantities in the lower (higher) level budget were generally derived from the income interval below (above) the income interval in which maximum elasticity was estimated to have occurred. For food-at-home, USDA's low and liberal cost food plans were incorporated for the Lower and Higher Budget, respectively. Shelter costs for the Lower Budget were based primarily on the mean contract rent for the bottom third of the distribution of units meeting the budget specifications; for the Higher Budget they were based on the mean contract rent and house market values for the top third of the distribution of units meeting the specification.

Determining the Cost of the Budget Market Basket. Once the market baskets of goods and services for the three budgets is specified, the items in them must be priced. From 1966 on, due to resource constraints, pricing for the Family Budgets Program did not involve independently collected data, but rather an augmentation of the price data collected for the BLS Consumer Price Index (CPI), which measures the changes in price levels over time for a market basket of goods and services constructed by reference to average expenditure patterns of urban wage earners and clerical workers in various metropolitan areas. Prices were collected for the current budget series in 1966 and 1969. Item costs based on 1966 prices were updated in 1967 using the change in prices in the Consumer Price Index (CPI). Since 1969, budget consumption costs have been estimated by using the CPI index components to update costs for classes of goods and services.

Pricing for the Family Budgets Program is a serious problem. The requirements for measuring price changes over time are not the same as the requirements for measuring differences in prices among geographic areas. For comparisons over time it is only necessary that comparable items be priced at the points in time; it does not matter if slightly different items are priced in different locations. To make appropriate comparisons among areas of the prices of items, it is necessary to collect prices for comparable items in comparable outlets in each of the areas. Otherwise a comparison of the costs will reflect not only price differences but also possibly quality and service differences. Further compounding the pricing problems for the Budgets program is the need to price the three market baskets representing the three budget levels. This involves pricing different quality levels for items that are common to all three.

In addition, estimating Family Budget costs for the different areas and levels presents problems. In particular, interarea quantity weights are incorporated into several major components. The food-at-home component, for example, incorporates regional differences in food consumption patterns; the transportation component incorporates different weights assigned to the ownership and usage of automobiles, with lower proportions in large than in small cities; the shelter component incorporates varying quantities and types of fuel associated with climatic differences from place to place; the clothing component also incorporates different climatic requirements resulting in different quantities of selected items

in different localities. Furthermore, in nonmetropolitan areas (places with population of 2,500 to 50,000) some components incorporate differences in life style in comparison with metropolitan areas.

These variations of the market basket among locations represent an attempt to measure equivalent living levels at all locations. The evidence supporting the adjustments is not equally convincing in each case. They are intended to represent taste and environmental differences. However, to the extent that they may reflect income differences as well, they defeat the purpose of an index. This topic will be discussed further in Chapter VII.

Equivalence scales. As already mentioned, the BLS derived Family Budgets for only two family types, the four-person family, and the retired couple. Because users need estimates of budget costs for other sizes and types of families, a set of equivalence scales has been developed. The following assumption was accepted in order to construct the scales--that families spending an equal proportion of income on food have attained an equivalent level of living.[11] The scales were calculated using data on average food expenditures and income after taxes for various urban family sizes from the 1960-61 Survey.[12] Although these scales have been regularly published, as noted above, they have not been widely used for analytical or administrative purposes.

CHAPTER II

LIMITATIONS OF THE CURRENT BUDGETS AND A NEW BASIS FOR DEFINING LIVING NORMS

The objective of the Family Budgets Program is, as it always has been, to develop norms of living, by which the well-being of people in this society may be measured. It is the Committee's judgment that this objective is an appropriate one, and that the Family Budgets Program should continue to develop ways to elicit and express such norms. Whether the conceptual basis originally formulated for the Budgets is any longer appropriate is, however, doubtful. In addition, the empirical procedures by which the Budgets are in fact constructed have major weaknesses that should be changed.

This chapter first presents the conceptual basis for the current Budgets and discusses how the current procedures fall short of the ideal embodied therein. It then discusses alternative ways in which norms can be developed, and suggests a new conceptual and empirical basis for the Budgets. Although the conceptual basis adopted by this Committee is new and different from the traditional one, we should emphasize that the empirical outcomes represent substantial continuity with past practice.

1. The Theoretical and Empirical Basis for the Current Family Budgets.

The theoretical basis for the current Budgets is the use of scientific prescriptions of what people need in order to maintain certain standards of living. This depends on the proposition that experts can describe--

in terms of physical, psychological, and social needs--the material requirements of a certain standard of living, and construct a detailed list of items meeting those requirements. The dollar budgets can then be derived by applying prices to the list of required items in order to calculate the dollar amount necessary to be able to afford that standard of living.

Such an expert-judgment standard is only empirically feasible, of course--whatever its theoretical merit--to the extent that expert specifications for living requirements are available for all important components of living. This is the first place in which the empirical embodiment of the Family Budgets Program ran into trouble. Of all the components represented in the BLS market baskets, expert-judgment standards exist for only two components--food consumed at home and shelter. Even these, however, present problems for the Budgets when they are used to develop specific cost levels for these categories.

The Food and Shelter Standards. The expert-judgment standards available for food, as mentioned in Chapter I, are those that the Food and Nutrition Board of the National Research Council (NRC) has published since 1941, giving sex- and age-specific Recommended Dietary Allowances(RDA's) for 17 different food elements or nutrients. These requirements are translated by the U.S. Department of Agriculture (USDA) into food plans at various cost levels--Thrifty, Low Cost, Moderate, and Liberal[1]--that all meet the same nutritional requirements. Selected food plans from the USDA list have been incorporated into the Family Budgets as estimates of food-at-home needs. But the cost of the several USDA plans does not

actually depend on the NRC standards. To develop a food plan, the USDA first selected a food expenditure level (specified either by the program needs of the U.S. Department of Agriculture itself or by an outside agency requiring a specific food plan), examined actual food consumption patterns of families at and around that level, and where necessary altered consumption patterns to conform to nutritional requirements. The several food plans thus produced all meet the nutritional requirements of the National Research Council.[2]

The USDA derived the food plans by dividing the after tax income distribution of urban households (based on the Household Food Consumption Survey) into thirds, and by basing the food plans and associated cost levels on food preference patterns and prices paid by the income class containing the median of each third. The mean food expenditure of the class containing the median of the lower third of the after tax income distribution became the basis for the food component of the BLS lower budget, the middle mean for the intermediate food budget, and the upper mean for the higher food component. A combination of the low and moderate food plans had been selected as the food-at-home component of the "modest but adequate" budget in 1959.[3] In 1966 there was a conscious upgrading: the use of the low cost food plan was dropped and the moderate food plan alone, reflecting the food expenditure level of the middle third of the distribution of families, became the basis for the food-at-home component of the newly named Intermediate Budget.

In other words, the technical standards for nutritional adequacy

affected the content but not the cost levels in the food components of the Family Budgets. Rather, the dominant role in setting costs was played by the actual expenditure levels of households at different positions in the income distribution. True minimum cost food plans have been developed by dropping the requirement that the plan resemble actual consumption patterns. These cost only 25% as much as the moderate plans, and illustrate again the point that technical nutrient requirements alone do not dictate a cost level.

The other component of the family budgets in which physical standards have been specified is in the area of shelter. Standards for adequate shelter were originally developed by the American Public Health Association and the U.S. Public Housing Administration. These describe sleeping space requirements, essential household equipment (including plumbing), adequate utilities and heat, structural conditions and neighborhood location. The rental and homeowner units included in the family budget market baskets were specified by BLS to meet this standard (for specifics, see Chapter I, p. 19, as noted).

As in the case of food budgets, these physical standards provide guidance only at minimum levels of housing adequacy. They are relevant for slum clearance and city safety ordinances but provide no basis for selection among housing units of more than minimum specification. Moreover, the relation between housing codes and clinical or epidemiological evidence is more tenuous than the analogous relationship in the case of nutrition.

The codes were developed to prevent the erection or occupancy of structures not suitable for human occupancy, to ensure proper maintenance of existing structures, and to provide guidelines for contractual arrangements. These minimum standards were not intended to guide the estimation of the cost of adequate shelter.

The decision regarding what constituted "modest but adequate" housing had, perforce, to be derived from considerations other than the available physical standards. In procedures analogous to the determination of the original three food budgets, the wide range of rental prices and market values of purchased homes on rented and owner-occupied units, all of which met the specified physical requirements, were arrayed and the mean value of each third was taken as the estimated cost of satisfying housing "needs" for the three currently produced budgets. For the 1967 budgets, for example, the mortgage, principal and interest components were established in relation to the mean purchase price in the middle and upper thirds of the distribution of market values for the dwellings in the BLS 1959-60 Comprehensive Housing Unit Survey which met APHA-PHS and PHA adapted housing standards for each metropolitan area or small city. Cost levels for the rental component of the three budget levels were calculated from the average of rents paid in the low, middle and upper thirds of the distribution of rents for units meeting the same standards. The relative weights given to rental and to owner-occupied units, respectively, in the calculation of total shelter costs were based on actual consumption patterns as well.

For the Intermediate Budget, the U.S. average urban proportion of renters was used; for the Higher Budget the average proportion observed in the income class, which was above the income class containing the U.S. average, was used; for the Lower Budget it was assumed that all families were renters.

As with the food component, then, the shelter budget levels under consideration were far above the minimum expenditure level at which the physical standards could be met. The budget makers therefore sought guidance from observations of consumer behavior.

The Quantity-Income-Elasticity Technique. The other items in the market baskets, however, presented conceptual as well as empirical problems because expert-judgment standards simply did not exist. Specifically, there were and still are no such standards for food-away-from-home, house furnishings or operation, transportation, clothing, personal care, medical care, reading, recreation, educational expenses financed directly by the family, tobacco, alcohol, miscellaneous consumption expenses, gifts and contributions to others, or life insurance. The quantity-income-elasticity (q-i-e) technique described briefly in Chapter I was formulated in an effort to deal with this problem.

For the q-i-e analysis, expenditure data were arrayed within family type by income class. As mentioned in Chapter I, the general principle chosen was in accord with the following hypothesis: at the low end of the income scale increased quantity of a purchased item is the main explanatory factor underlying increased expenditure resulting from income increases, whereas at a certain point continued expenditure increases are accounted

for by quality improvements rather than quantity increases, yielding an an S-shaped relation between quantity and income; the point at which the change takes place (the inflection point of the S-curve) can be taken as the point at which income becomes sufficiently high to permit spending on things other than necessities. The principle of the q-i-e procedure, thus, was to define the quantities and qualities of items purchased by families at that income level as the requirements for a reasonable standard of adequacy.

For analytical tractability, items were aggregated into major consumption groups; the measure of quantity for a particular group was taken simply as the total number of articles or services purchased on average by each income group weighted by a fixed set of prices. Efforts were made to use the q-i-e method to determine the cost of Intermediate budget components. In only a few cases, however, did the q-i-e procedure yield an acceptable answer. Either there was no inflection point, or it came at a level which was outside the range of prevailing expenditure patterns.

More specifically, the following kinds of procedures were developed to derive the 1966 Intermediate Budgets. For transportation and medical care not covered by insurance, the anticipated S-shaped curve was not observed and budget levels were determined from actual spending patterns. For medical care covered by insurance the cost of a standard (i.e. typical) health insurance policy was used. Quantities of medical care services not covered by insurance were derived from data on

utilization rates provided by the 1963-64 U.S. National Health Survey and the 1960-61 Consumer Expenditure Survey.

For transportation, car ownership weights reflected the average ownership patterns reported to the Consumer Expenditure Survey for budget-type families. Proportions for the Intermediate budget reflected the U.S. average, proportions for the Lower budget were derived from the average car ownership patterns of rental families, while the rate of ownership for the Higher budget described prevailing patterns of all income classes above the average. For car-related costs, including frequency of purchase and operating costs, assumptions were made based upon analysis of the actual spending behavior of budget-type families at different income levels.

For food-away-from-home and alcoholic beverages, elasticities were constantly rising and the cost levels were taken from the income class corresponding to the anticipated level of each budget. For clothing and the majority of subgroups, elasticities were at a maximum in the lowest income class and costs were derived from this lowest range; in house furnishings, a determinate answer was not found for major appliances; for household operations, personal care, reading, and recreation, the S-shaped curve was not discernible and quantities were derived from the middle income class, although for several of these a case could have been made for a higher inflection point. Only for tobacco and house furnishings (excluding major appliances) did the q-i-e technique provide a well-defined income level.

Thus, the hypothesis of an S-shaped relationship between quantities purchased and income, which could provide an objective identification of an appropriate budget level, was not always confirmed by the empirical findings. Therefore, the components of the Family Budgets were perforce the result, in many cases, of discretionary decisions made by the BLS staff--the primary criterion of which was that the resulting numbers be "reasonable" in comparison with observed expenditure patterns and with past values or shares in the Family Budget (Brackett, 1970).

Empirical intractability is not, however, the only indictment against the q-i-e technique. The technique was justified in terms of quantities but only dollar value data were available, and no theoretical transition to quantities was made. The argument that consumers move from buying increasing quantities to improved quality, or different and more luxurious goods, as their living levels increase, has strong common sense appeal. But the data available for the application of the argument are expenditure data on relatively aggregated categories of goods. Average price data, which would be required to convert such expenditure data into quantity indexes, have not been collected for the aforementioned family types and income classes. Consequently, there is no foundation for this supposedly empirically based hypothesis other than to assume that prices are constant, i.e., that expenditures are proportional to quantities. But this is clearly inconsistent with the major premise of the q-i-e procedure.

Thus, the theory does not provide a complete basis for utilizing data that are limited to expenditure measures on major (or even detailed)

categories and lack either the critical information on quantities or the specialized price information from which quantities might be inferred.

In sum, then, neither the results of applying the q-i-e procedure nor the internal consistency of the approach indicate that it is an appropriate method for establishing the priorities of consumers themselves or for identifying any other consensus about what constitutes a particular norm or level of living. As can be seen from the foregoing discussion, the makers of the Family Budgets were forced to use a variety of different estimation techniques--expert, statistical, judgmental--for constructing the Budgets.

For the Intermediate Budget we have seen that, in the case of food, prevailing expenditure patterns have been added to the technical requirements to produce the Budget. Housing cost norms were similarly drawn from the middle of the cost distribution of the housing units that satisfied the basic quality standards. The q-i-e technique was followed in cases where it indicated one of the middling or lower categories as the basis for an expenditure standard, but was rejected in favor of some other rule whenever the standard fell above the broad middle range. The "fall-back" contingencies dictated some choice in the mid-range of whatever distribution was relevant. And the fall-back option turned out to be the most acceptable choice in the usual case. Regardless of the difficulties, therefore, the 1946 Budget, the 1959 Interim Budget, and the 1966 Intermediate Budget all fell within the middle range of family incomes.

2. The Concept of a Norm: The Theoretical Basis for the New Family Budgets

Of the several meanings of "norm" given in Webster's New Collegiate Dictionary, two provide an appropriate reference point for this section's discussion.

* A norm is an authoritative standard
* A norm is a set standard ... usually derived from the average or median achievement of a large group.

As is clear from the previous section, the rationale behind the Family Budgets was to derive an authoritative standard (the first meaning of norm) from technical specifications of need based on the judgment of experts. This turned out not to be possible. In the absence of absolute criteria, therefore, the budget makers have been compelled to make choices (in the opinion of this Committee they have been reasonable choices) concerning the appropriate range for the final budget levels. The choice of thirds of the expenditure distribution for the food budgets, for example, was a reasonable solution and, we believe, reflected prevailing perceptions of what were "modest but adequate" levels of food consumption.

What is interesting and important to note is that the Intermediate Budget level and its precursors consistently reflected achievement in the middle range (Webster's second meaning of "norm"). This Committee is comfortable with the levels that have been chosen for the Budgets; our recommendations, in fact, continue in the spirit of this tradition. But the theoretical basis of our recommendations is different. In a society as diverse and as far above subsistence as ours, we believe that the specification of technical physical standards is no longer even conceptually

appropriate as a way of arriving at living norms.

Our reasoning is relatively straightforward. In a society in which prevailing spending levels fluctuate around bare subsistence--in which, in other words, the regular pattern is for people to be at risk in terms of their health or even their ability to survive and provide for the survival of their children--a strong case can be made for the appropriateness of using technical standards as measuring rods by which to gauge a society's performance. Even when prevailing levels of living are above subsistence but not above physical want, the concept of what people need as opposed to what they do has a place.

"In 19th century America," as the Bureau of Labor Statistics has pointed out, "if the satisfying of food needs required only 50 instead of 75 percent of expenditures, that was a significant indicator of [improved] well-being."[4] In today's society, however, this is no longer the case. This is not, of course, to say that people are no longer hungry or that they are no longer nutritionally deprived. It is just that relative food expenditure is no longer taken as a general measure of well-being. In 1971, for example, a representative sample of Bostonians was asked what they thought were the differences in consumption patterns characterizing different degrees of"well-offness"(Rainwater, 1974). Respondents were asked to describe what they thought living styles would be like for those who were average, getting along, living the good life, or living in poverty. Respondents zeroed in on just a few attributes of expenditure, and their main emphasis was on the stock of consumer durables owned. Food was con-

spicuous by its absence. "Almost no one mentions food in differentiating living levels...this is of interest because it suggests that having enough food is simply not regarded as problematic even at the poverty living level."

In a society like ours, it is not likely to be misleading to associate relatively large expenditures on restaurant meals, travel (including commutation) and leisure pursuits, and education with relatively high levels of well-being. Shares spent on clothing, shelter, and medical expenditures, however--which would seem to be sound and important welfare indicators --are not likely any longer to convey much in the way of meaningful information. (As confirmation of this point, Table II.2 shows the historical trends in average budget shares for different types of expenditure, from four expenditure surveys covering the period 1934-73).

Once one moves away from technical standards for subsistence, the concept of norms of living becomes inherently relative. They are valid in detail for a particular time and place. For a norm to have any practical applicability, its construction must be informed by knowledge of the economic and social conditions within the society to which it is supposed to apply. This means that norms in this sense--consumption patterns and levels of living by which individuals in a society judge their own performance and that of the private and public sectors--are also inherently imprecise. Some indeterminacy in any quantitative statement of a normative budget, therefore, is inevitable in the sense that nearby alternatives would be similarly regarded as appropriate characterizations of a given group or living level.

TABLE II.1

BUDGET SHARES (PERCENTAGES) FAMILIES OF TWO OR MORE PERSONS, SELECTED PERIODS

	1934-36	1950	1960-61	1973
Current Outlays for Goods and Services	100	100	100	100
Food and Drink	42	34	28	23
Housing	25	23	28	30
Shelter	14	11	14	16
Utilities	5	3	4	5
Household Operations	3	4	5	4
House Furnishings and Equipment	3	5	5	5
Transportation	9	13	15	23
Auto Purchases and Operations	5	10	13	20
Other	4	3	2	3
Clothing	11	10	10	8
Medical Care	5	7	8	6
Other	8	11	11	10

SOURCE: U.S. Department of Labor, How American Buying Habits Change, USGPO, Washington, D.C.: (1959), and special tabulations done for the Committee.

Both these properties of a norm of living imply that the authority of any set of normative Family Budgets must come from their proximity to a generally recognized social consensus on what are attainable, decent standards of living and feasible aspiration levels. The usefulness of norms, in other words, derives from whether they are regarded as appropriate and correct by the population using them.

The final conclusion of all this is the crucial point of our argument. Norms of living do in fact exist in a given society and are perceived by its members. The purpose of a Committee such as ours is not, therefore, to create such norms but to elicit and give quantitative expression to the norms that are present in our society.

The task we have set ourselves is consistent with the meaning of "standard of living" used by the Committee of Experts on International Definition of Standards and Levels of Living as relating to "the aspirations and expectations of a people, that is, the living conditions they seek to attain or regain or which they regard as fitting and proper for themselves to enjoy."

The definition of standard of living favored by the sociologist Carle Zimmerman some 45 years ago provides an excellent summary of our goal: to give quantitative expression to

> the type of behavior which most adequately expresses the dominant values found in an associated standard of living.... This behavior is neither average nor extreme: it is the type of behavior common to those who successfully represent the habits and values of the given group.
>
> (Zimmerman, 1936, p. 4-6)

3. The Proposed Empirical Basis for the New Family Budgets

It is the judgment of the Committee that the most effective way to develop measures of the living norms of our society is to concentrate attention on current consumption expenditure levels and patterns. This is continuing in the tradition of the Family Budgets Program. Our emphasis is on making the procedures more systematic, more directly related to current expenditure data—more readily understood, therefore, and less open to misperceptions and misuse.

The particular standards we will recommend are based on the proposition that at present total consumption expenditure is the best indicator of living levels that we have. Stating a norm in terms of expenditure rather than income has immediate appeal because it can be disaggregated into a set of categories of consumer goods, facilitating a better intuitive grasp of what differences or changes in living levels amount to. The expenditures by category can be further illustrated by "shopping lists" that can be afforded. In particular, if the shopping list comes to resemble that of higher income households at earlier periods, the change implied can be readily grasped.

There are also good theoretical reasons for focussing on expenditure. The "permanent income hypothesis" (Friedman, 1957) and the closely related life-cycle models of household behavior (Modigliani and Brumberg, 1954) are built on the proposition that current consumption spending is the best indicator of a household's long-term level of living expectations, which it strives to maintain through planned earning, saving and dissaving activities that vary over time.

Theories of consumer behavior and of household decision-making also lend support to the view that overall expenditure levels rather than expenditure shares on particular items constitute the appropriate focus. The former theory deduces the reasonable proposition that when the price of a certain commodity rises, the consumer will tend to maintain the same level of well-being by substituting other goods for the one whose price has risen. The latter theory argues that the household[5] is the fundamental consumer unit, and that size, age, and marital status will all affect preferences and, therefore, expenditure patterns for a given aggregate expenditure level—leading to different market baskets purchased by different families at the same level of well-being and the same total expenditure level.

This choice of aggregate expenditure levels as the central focus does not, however, imply that the Family Budgets Program should not provide data showing how certain family types allocate total expenditure among major expenditure categories at various Budget levels. Nor does it mean that the levels of gross income or disposable income required on average to make or maintain a given level of expenditure should not be calculated. Indeed, the Committee views such elaboration as important in making the expenditure standards more useful and their implications more fully understood, and our recommendations include specific procedures for doing both.

Before we discuss our detailed recommendations, however, it is useful to discuss available, soon to be available, and potential sources of data from which aggregate expenditure norms might be derived. Chapter III undertakes that task.

CHAPTER III

DATA SOURCES FOR REVISING AND UPDATING THE FAMILY BUDGETS

Conceptual difficulties aside, one major inadequacy of the Family Budgets Program has been the infrequency with which the Budgets have been revised on the basis of new expenditure data (as opposed to being updated with price data). The Budgets currently in use, for example, are based on expenditure data from 1961--two decades ago. The recommendations of this Committee specify the immediate derivation of a set of new standards based on the data now available from the 1972-73 Surveys of Consumer Expenditures (CES). Further, they specify the use of the new Continuing Consumer Expenditure Surveys (CCES) and the planned Survey of Income and Program Participation (SIPP). Finally, they advance the idea of collecting survey data that can provide direct measures of living norms as perceived by society. The first three sections of this chapter describe the 1972-73 CES, the CCES, and the SIPP, respectively. The final section discusses suggestive evidence for the view that asking direct questions about living levels can provide illuminating and statistically useful data for establishing the income and expenditure norms prevalent in a society.

1. The 1972-73 Consumer Expenditure Survey [1]

The 1972-73 CES provides the first data since 1960-61 which measure expenditure and income data on the basis of a broad sample. It is the latest in a series, begun in 1888-91, of periodic surveys of consumer

expenditures, incomes and changes in assets and liabilities--and the first to be conducted by the Census Bureau. It provides detailed information on the expenditure patterns and savings behavior for a nationally representative sample of the noninstitutional population of the entire United States. Interviewing extended over two and a half years, from 1972 to 1974, in order to minimize the impact of unusual economic conditions that might coincide with the survey and distort the results.

In a radical departure from previous methodology, the 1972-73 CES was divided into two separate surveys, each with its own questionnaire and sample: the Quarterly Survey and the Diary Survey. The rationale behind this twofold approach was that the recall of expenditures varied with the cost and importance of the item. Information on the larger and more easily recalled expenditures was collected by periodic recall on the Quarterly Survey; expenditures on the smaller, relatively inexpensive, and more frequently purchased items, was collected by daily recordkeeping in the Diary Survey.

The sample designs of the Quarterly Survey and the Diary Survey are practically identical, although a different sample of addresses was selected for each component survey. For the Quarterly Survey a sample of 23,000 addresses was selected; for the Diary Survey a sample of 27,000 was selected.

There were two Quarterly Surveys, covering a 15-month period beginning in January of 1972 or 1973. Households in each wave were inter-

viewed at the end of each quarter, for the total of five interviews, and one-third of the survey units were interviewed each month throughout the survey period. Frequently purchased or relatively inexpensive items such as clothing and utilities were collected each quarter. A six-month recall period was used for relatively expensive items such as furniture and small kitchen appliances. A 12-month recall period was used for large, infrequently purchased items. In total, all expenses except for those for which the diary questionnaire was designed were recorded--including detailed information on out-of-town trips and vacations, taxes, home repairs, all types of insurance policies, clothing, professional services of doctors and dentists, and charitable contributions. In addition, global estimates for expenditures on food and beverages were obtained in quarters two through five.

At the first interview, detailed information was collected on the socioeconomic characteristics of the consumer unit, and an inventory made of the presence and condition of major appliances and the presence of minor appliances. At the last interview, information was obtained on the work experience, occupation, and industry pertaining to the relevant calendar year (1972 or 1973) for each person 14 years or older, and annual income by detailed source for each person. Savings behavior over the calendar year was derived by calculating the net change in assets and liabilities on the basis of reported balances for January 1 and December 31 and intrayear financial transactions.

The Diary Survey was divided into two years--the first from the last week of June 1972 through the third week of June 1973, the second from the last week of June 1973 through the third week of June 1974. Interviewing was spread evenly throughout the year to capture any seasonal variations in expenditures, except for doubling the sampling during the December holiday season in a concentrated effort to obtain more reliable information on increased spending at that time.

Each family was requested to keep a detailed diary of purchases over two consecutive one-week periods. The major expenditure components for which the Diary Survey was designed were food, beverages, household supplies, personal care products, household services, and nonprescription drugs. To prevent confusion about what items should be included, however, respondents were requested to record all purchases. At the beginning of the first diary week, detailed socioeconomic data were collected. At the end of the second week, information was collected on the work experience, occupation, and industry for each unit member, and annual cash income (census definition) from detailed sources for the unit as a whole. In addition, the Diary asked for Food Stamp data.

Since the 1972-73 CES data are the most recent and detailed expenditure data that currently exist, the Family Budget Program should derive new standards in accordance with the recommendations contained in chapters

IV through VII on the basis of these data as soon as possible. Family Budgets based on 1972-73 data will clearly represent an improvement over the current ones. But even these data are eight years old. When economic conditions (particularly relative prices) are changing rapidly, expenditure patterns can be expected to change in response. To quote an obvious example, the 1972-73 survey took place before the oil embargo and subsequent oil price increases, and does not reflect the resulting adjustments in family spending behavior (Jacobs, 1979).

It is important, therefore, that future updating be undertaken on a regular basis as soon as data from the CCES to be discussed below are available.

2. Continuing Consumer Expenditure Surveys [2]

The importance of ongoing consumer expenditure data has now been recognized to the extent that Congress has authorized funding for a Continuing Consumer Expenditure Survey program (CCES). As soon as the first round of data from the CCES becomes available our recommendation is to use it to estimate the new Family Budget Standards on an annual basis.

The components of this new program that are relevant for the Family Budgets are (as in the CES) a Quarterly Interview Survey and a Diary Survey, the results from which will provide data for estimating expenditure levels and studying buying habits. Both these surveys were pretested in 1978 and went into the field on a full-scale basis in September-October 1979.

The CCES will be conducted according to the same basic methodology used for the 1972-73 survey. The samples will be substantially smaller, but the fact that data will be available on an annual basis makes it a valuable data source on expenditures.

The Quarterly Interview Survey, as before, is designed to collect data on types of expenditure which respondents can be expected to recall fairly accurately for three months or longer. In general, these are either relatively large (such as purchases of property, electrical appliances, and vehicles) or are expenses that occur on a regular basis (such as rent, utility bills, and insurance premiums). The Diary Survey is designed to collect information on the small, inexpensive items that respondents cannot be expected to recall even for relatively short periods of time (most of which are covered inadequately or not at all in the Quarterly Interview). Data will be collected from a national probability sample of households designed to be representative of the total civilian population.

The sample design for the Quarterly Interview will be a rotating panel scheme. Interviews with each sample unit will be conducted quarterly over a period of five consecutive quarters (15 months) and then dropped. Each quarter the sample will be divided into three equal parts, with each part designated for interviewing in a particular month of the quarter and every three months thereafter. The monthly sample will consist of approximately 2,860 assigned consumer units, making a total caseload of approximately 8,580 for the quarter (for 6,000 completed interviews).

In the first interview, information will be collected on socioeconomic characteristics of the household, an inventory of major durable items, and expenditures for selected goods and services during the previous three months. These data will be used primarily to bound data reported in subsequent interviews. Data collected during the second through fifth interviews will form the basis of the regular series of expenditure estimates. The final (fifth) interview will also ask annual supplemental questions to obtain more detailed income information for the past 12 months—cash receipts, taxes, contributions, occupational expenses and detailed mortgage payment data.

The survey methodology for the Diary Survey requires each selected sample unit to keep one-week diaries of expenditures over two consecutive weeks. The annual target sample size at the national level is an estimated workload of 7,700 sample units (for 5,470 completed interviews). During the last six weeks of each year, the Diary sample will be supplemented to twice its normal size, to increase the reporting of types of expenditure unique to the holiday season.

When the diary is explained and left with the family at the beginning of the two-week period, a personal interview will be conducted to obtain household composition and selected household characteristics. At the end of the two-week period the interviewer will ask selected questions about work experience and income. Data on the socioeconomic characteristics will be used to link the Diary Survey results with the Quarterly Interview Survey data.

The continuous expenditure data from these surveys, then, provide an appropriate basis for the new set of Family Budget standards. The augmentation of these expenditure norms to gross income equivalents, however, as well as additional statistical material showing what such living levels imply in terms of income sources, housing levels, etc., should also use additional information from the planned Survey of Income and Program Participation.

3. Survey of Income and Program Participation[3]

The proposed annual Survey of Income and Program Participation (SIPP) is still in the planning stage. When SIPP data are available they will provide invaluable additional data for the detailed statistical profiles we are recommending to allow full interpretation of what the new Family Budget standards mean in terms of living patterns and how the U.S. population is distributed with respect to those standards (see chapter IX for more detailed recommendations on this issue).

The focus of SIPP's data collection as currently planned will be twofold: (a) on income data together with other data on program eligibility, participation and benefits, and (b) on income data together with data on changes in assets to yield estimates of savings. There is, in fact, considerable overlap between these two, because means-tested programs frequently have asset limitations. Since there is no uniform eligibility criterion, assets included or excluded in calculating eligibility and benefits vary from program to program. In order to estimate eligibility for all relevant programs, it is necessary to collect information on almost all forms of assets.

The SIPP panel design is to be longitudinal in that a panel of households will be interviewed regularly and followed to new addresses if they move. If the households split, both parts will be interviewed. How long persons will be in the sample before being replaced is not yet decided. It is likely that the SIPP interviews will be on a quarterly basis, with a fixed set of "core" questions on income and household composition. This core can be supplemented by annual modules on less important or more recallable areas (such as journey to work, fertility patterns, and educational attainment), and, on a more ad hoc basis, special-purpose issues such as impact analyses of various legislative proposals.

The initial Panel will encompass about 15,000 households. Increases to 20,000, 30,000 and 40,000 households in subsequent years have been proposed. Sample sizes sufficient to permit state-level estimates were considered in earlier planning phases. Consideration of such expansion has now been deferred, however, although possible statistical linkages to the 1980 Census and to the mid-decade census (if conducted) in order to permit small-area estimation will be explored.

Until data are available from a regular SIPP survey program it will be necessary to rely on the Current Population Survey (CPS) March Income supplements for current information on income and demographic status. This survey has long provided the backbone of information on income distributions, and while measuring less detail on income sources, program participation, and wealth-related issues than the SIPP, it does provide an annual series of cross-section data from a very large sample.

4. Surveys of Perceived Norms[4]

So far, all the data sources we have discussed are to be used to provide better data on living patterns, with an eye to estimating and providing detailed information about the living patterns that characterize those at the middle of the expenditure distribution and those at other relative living levels. This section discusses a completely different approach to identifying norms--that is, norms based not on observed living patterns but rather on what the population understands those norms to be. The rationale lying behind this new approach follows from our belief that direct questions to the public should elicit the levels of income corresponding to such verbal descriptions of living levels as "subsistence," "decency," or "comfort." Alternatively, the approach could be used mainly for establishing the central prevailing norm, and other norms could be maintained at fixed values relative to that norm. The reason for asking about income is that people generally are more conversant with their aggregate income levels than with the total expenditures. (Expenditure norms could then be derived from estimates of the relationship of expenditures to income levels.)

The use of sample surveys for this purpose can be relatively inexpensive and straightforward. There is also something inherently appropriate in a society committed to diversity and choice in patterns of living about using the directly stated views of the public as measures of what is "required" to achieve a certain living standard, rather than judgments of experts—statistical or otherwise.

Although no data exist that would allow authoritative estimates of those norms to be made for the U.S. population, estimates have been made for certain European countries. Studies have also been done on a small scale here that are encouraging enough to lead this Committee to recommend that direct data of this kind be collected on a national scale. A program of research and testing should develop methods leading toward eventual replacement of the median-type of norm we are currently recommending for the Family Budgets with the norms derived directly from people's perceptions. (See Chapter VIII for more detailed recommendations.)

Questions which are useful for estimating income minima can be classified into two broad types, direct and indirect. Indirect questions ask respondents to evaluate various aspects of their life situation--how satisfied they are with their income, for example, or whether their income is enough to live comfortably. Direct questions, in contrast, ask the respondent how much money is required to maintain some specified level of living. The former are sometimes asked on U.S. surveys. The latter have only been tried on a large scale in other countries. There is evidence, however, that the latter may be much more effective at eliciting the norms that are needed. Each will be described in turn.

Indirect Questions. This approach has been tried with questions regarding (a) perceived adequacy, and (b) satisfaction with the living level obtained.

To elicit the former, the questions "Is your income enough to meet monthly expenses and bills?" and "Is your income enough to live as comfortably as you would like?" have been asked and the answers analyzed.

The hypothesis was that there could exist a level of income at which no amount of foresight and proper budgeting would suffice to bring necessary expenditures in line with income. At such low levels, most respondents should answer the first question in the negative, and as income increases there should be a declining proportion of such negative responses. From this a steep slope was anticipated for low levels of income up to where "trouble meeting bills" becomes a function of factors unrelated to current, measured income. The boundary between these two segments of the income range might then be an indication of where incomes become adequate.

The second question, if there is a popular conception of what constitutes a "comfortable" standard of living, should be useful in measuring where that higher level falls. Ideally, one would expect the relationships of response to this item to take the form of a three-segment curve, with a flat slope to an income level near that popularly interpreted as "comfort," followed by a steep upward slope to a flat plateau at very high levels of income. The zone around the inflection point between the concave and convex segments should provide an approximate measure of a "comfort" level.

Analysis of answers to these questions for a sample size of about 4,500 yielded curves of the expected shape.[5] However, the estimated points of adequacy and "comfort" came at income levels rather high up in the income distribution.

To elicit perceptions of satisfaction, responses to questions of the form "How do you feel about...?" or equivalently "How satisfied are you

with...?" with respect to respondents' income, standard of living, and life as a whole were analyzed. These responses were solicited on scales ranging from "delighted" to "terrible" or "satisfied" to "dissatisfied." The hypothesis here was that satisfaction should be positively related to income but that the slope of the relationship should diminish beyond a "saturation" point in the income range to the extent that satisfaction is a function of expectations as well as resources and--to the extent that expectations are adjusted to fit with past and future as well as current resources--the relationship can be expected to be less strong than for answers to questions about the adequacy of current living levels.

Answers to questions of this type were analyzed on the basis of 859 cases coming from the 1972 data on two national probability samples of adults living in the coterminous United States (see Andrews and Withey, 1976) and restricting usable obervations to named correspondents with at least one child. The results for satisfaction with income and standard of living were not promising, yielding no discernible point of abrupt change in slope. Satisfaction with life, in contrast, offered more promise, yielding an estimated saturation point at about 78% of median income. Neither of these results, however, replicated those of a similar approach (Vaughn and Lancaster, 1979) using similar data, leading to the suspicion that this is also not a very promising approach for policy purposes.

Direct Questions. The direct question approach described here is based on the assumption that people are the experts on the needs of their own families. The procedure is simply to ask respondents how much income, considering their own circumstances, is necessary to live at some

level of living, described in words like "adequate", etc. Responses are related to income, and the shape of the responses is such that there is a determinate income level above which people tend to think they need less than they have and below which people tend to think they need more. The specified standard, then, is simply the level of income at which respondents think that the amount required is actually the amount they have. A useful byproduct of any subjective survey approach, since responses are also related to family size, is that it also yields family size equivalence scales.[6]

Most of the research using this method has taken place in Europe. One question of this general type has been asked annually in this country by Gallup since 1947--asking how much the respondents think is necessary for a family of four "to get along in this community." Analysis of the answers has yielded reasonable response patterns. One other study using direct questions has also been done on United States data. The question "What amount of family income would be what you could just get by on?" was asked of a quota sample of roughly 200 Toledo, Ohio area residents in 1972. The answers were analyzed on the assumption that answers to such a question should yield a consensus of what was considered the lowest level at which a decent life was possible. Although the sample was small and represented no population in particular, the results were sufficiently encouraging to show the technique to be of great promise.

The estimated minimum from the sample data was extremely close to the BLS Low Budget for 1972 ($7,584 versus $7,386 respectively). In addition, the family equivalence scale yielded by the Toledo data was quite similar to both the BLS and Social Security Administration ("poverty") scale, though somewhat less steep than the former.

This analysis used, in many ways, the poorest sample of any of the methods discussed here; but the question asked was able to yield results that were meaningful, consistent, and believable. The method also has the considerable advantage of being simple, theoretically justifiable, and elegant in application. The question discussed tapped a kind of minimum. It should be possible, however, to estimate other standards by analogous questions.

Because of the promise of these direct approaches to eliciting norms, the Committee will recommend (see chapter VII) that appropriate questions be added on a regular basis to some national surveys with the goal of analyzing the results as part of a research program designed to yield still further improvements in the Family Budget Program.

CHAPTER IV

NEW FAMILY BUDGET STANDARDS AND INTERFAMILY EQUIVALENCE SCALES

The Family Budget program has, since 1966, established as one of its budget levels a central standard to reflect the expenditure norm associated with typical levels of living in the U.S. The Committee's recommendations continue this practice by specifying a central standard to be called the Prevailing Family Standard. We further propose to use this as a reference standard, relative to which we specify other standards, designed to reflect both higher and lower living levels than the "typical" U.S. standard.

1. The Central or Reference Standard

After systematic review and discussion of alternative ways of specifying a central Living Standard, the Committee has become convinced that the most appropriate measure for the Prevailing Family Standard is the median expenditure level of all households composed of a nonaged married couple and two children.

Two major general points led us to this decision. First, no basis exists for the development of technical, scientifically based criteria for defining living levels in the neighborhood of any conceivable American living standard. Second, the problem of individual preferences and cultural diversity presents, in our view, an insurmountable barrier to the specification by "experts" of living patterns that other members of society "should" adhere to. We prefer the assumption that members of society are the best judges of how to allocate given resources. This leaves us with the task of making an essentially arbitrary choice among

various statistical alternatives for measuring prevailing living levels.

Our particular choice was informed by the following considerations. Although household composition has been changing substantially and no family type can any longer be regarded as typical, the married-couple-with-two-children household seems the most likely to continue to represent the broad category of workers in their child-rearing and most productive years. In addition, because the majority of people, as children and as parents, are members of similar households during some of their lifetime, this is a widely recognized prototype. Further, it has remained a very stable proportion of total households for the last 20 years. Finally, this type of household corresponds closely to the nonaged household that has been budgeted by the BLS in the past, and its choice, therefore, represents useful continuity with the Intermediate Family Budget as currently derived.

The latter stood at $14,000 for 1978 in terms of total consumption; the median that we propose for the reference standard was $14,497 in 1978.

As already noted, the measure we have chosen is one among several that could be used to locate a living level in the range that can be recognized as typical or average in contemporary life. In any case, what should be emphasized about any choice is that, once made, it be adhered to and form a standard that continues to represent a stable relation to the array of living standards and styles that prevail at subsequent times.[1]

2. The Specification of Additional Expenditure Standards

Having chosen a central standard, the Committee then faced the task of reviewing the entire distribution of expenditure levels in order to identify those levels of expenditure that could serve to demarcate distinct

levels of living that have identifiable and socially relevant meanings.

Our extensive review of the survey evidence and of the past experience with budget-setting led us to recommend the specification of three additional expenditure standards within the range of contemporary levels of living. These standards can also be related to relative norms that have been repeatedly encountered in the history of evaluating living levels in this country.

The lowest level is designed to mark the boundary beyond which living levels are far enough below prevailing standards to raise issues of deficiency and deprivation. We have termed this level the Social Minimum Standard, to denote a boundary below which it is nearly impossible to maintain a standard of life that is recognized as a part of the normal social structure. We have set this level at 50% of the Prevailing Family Standard. When the issue of poverty was first raised in the early 1960's, the population of concern was the group of families with expenditure levels below half of the median. Now, 15 years later, we find that the poverty line has slipped to nearly one-third of median incomes. However, we also find that 125% of the current poverty line is more frequently used as a basis for policy analysis and administration. In addition, there is numerical simplicity in choosing 50% and plausibility in the notion that living at levels that are less than half those enjoyed by the typical American family is likely to be, for most, a bleak experience.

The next level we have chosen falls between the Social Minimum Standard and the Prevailing Family Standard. Several considerations dictated our decision to set this level at two-thirds of our reference standard.

First, the history of social norms in the U.S.[2] indicates that society has generally recognized a level between what it considers the social minimum and what are typical living levels.

Second, as evidenced by the answers to a Gallup question asked regularly over a 22-year period (1946-1968), there seems to be a striking public consensus that "how much it takes to get along in this community" amounts to about two-thirds (69%) of the observed median. Interestingly, the level of the Lower Budget in the existing Family Budgets came out close to two thirds of the Intermediate Standard when it was established and is currently within a couple of percentage points of it. This level thus provides continuity with the conceptual and empirical reality of the Lower Budget; to emphasize the continuity we have termed this level the Lower Living Standard.

Third, although in absolute terms this second level is only one-third above our Social Minimum Standard, it is enough above it to bound the expenditure levels of a substantial additional group of families. According to the 1972-73 CES data, 13.2% of the population live at levels below our Social Minimum while 25.4% live below our Lower Living Standard.

We have chosen to set our final and highest level at one-and-a-half times the reference standard--putting it three times as high as the Social Minimum Standard. We have chosen this level to reflect the living standard at which families can enjoy numerous luxury features of American consumption patterns and will in general be relieved of most pressing needs. To reflect this objective, we have called it the Social Abundance Standard. Such a level is also useful as an indicator of the improved standards that society seeks for itself. If real consumption were to grow at a 2% annual

rate, for example, the Social Abundance Standard of 1980 would become the Prevailing Family Standard by the year 2000. In terms of the 1972-73 CES data, around 18% of the population enjoys living standards at or beyond this Social Abundance Standard.

Comparisons with the existing Family Budgets and the official poverty lines are shown in Table IV-1. Only the expenditure totals for consumption are shown because the augmentation of the recommended standards up to a "full budget" has not been carried out. Nevertheless, it can be seen that the three higher levels are all above the most nearly comparable current Budget by around 5% for the Lower Living and Prevailing Family Standards, and nearly 15% for the Social Abundance Standard. A direct comparison with the existing poverty threshold is not possible because the threshold does not have a corresponding consumption expenditure total. It should be expected, however, that when the Social Minimum Standard is augmented to a gross income equivalent, it will be around 25% higher than the current poverty threshold for four-person non-farm families.

3. Interfamily Equivalence Scales

The choice of a level of living as a norm or standard for comparison for a particular type and size of family is only the first step in identifying a set of norms that can be applied to evaluate income or expenditure levels for the entire population. Some method is required to select an appropriately equivalent level for every possible alternative configuration of family structure. This is an extremely important aspect of any set of norms or standards that are to be used to evaluate income levels

TABLE IV-1

COMPARISON OF THE RECOMMENDED STANDARDS WITH
1979 FAMILY BUDGET LEVELS AND THE POVERTY THRESHOLD
FOR THE FOUR-PERSON FAMILY

	Total Consumption Expenditures
Social Minimum Standard	$ 8,064
1979 Poverty Threshold	7,410*
Lower Living Standard	10,753
Lower BLS Budget	10,234
Prevailing Family Standard	16,129
Intermediate BLS Budget	15,353
Social Abundance Standard	24,193
Higher BLS Budget	21,069

* The poverty thresholds are constructed for comparison with after tax incomes, but in their use with census data they are compared with Census money income--a before-tax concept.

and distributions. The number of persons and household units that are below a specified budget level can be changed greatly by changes in the structure of equivalence scales, even when the basic level for the 4-person or reference family is held constant. Where the standards are used to define eligibility for public programs, the equivalent level for 2- or 6-person families is directly relevant for determining eligibility on a case-by-case basis; hence, a change in the equivalence scale could exclude or include classes of families even though the criterion for the 4-person archetype is unchanged.

There are some outer bounds on reasonable equivalence scales. One extreme simply treats all families as equivalent regardless of size, age, or composition. Taking the definition of family as two or more related persons, this approach leaves the 1-person household for separate treatment, but otherwise it very much simplifies the job of devising budget levels of all types of household. This is the implicit scale used for distributions of family income published by the Census Bureau. The very earliest counts of families in poverty published by the Council of Economic Advisors also made no distinction among sizes or types of families. The implicit assumption underlying this treatment is that family size is a matter of choice and, hence, that we should not assume that a 6-person family spending $5,000 is any "worse off" than a 3- or 4-person family spending the same amount.

The other extreme evaluates every indicator on a per capita basis. A 6-person family is assumed to need three times as much as a 2-person family to achieve equivalent levels. This produces an equivalence scale that is strictly proportional to the number of persons--irrespective of

age, sex, or condition. Again, such a scheme of equivalence is simple to implement, but this extreme seems intuitively as implausible as the first one. There are economies of scale in consumption; and most people believe that the marginal requirements of an extra person in order to maintain a given standard of life are somewhat less than average or per capita expenditures.

But where between these two extremes should the scale be set? Many attempts have been made to use the observed behavior of household units to infer appropriate scales. It is the opinion of this Committee that none have succeeded in finding a dependable method that is both based on plausible principles and also produces scales that are consistent with conventional notions about how they should vary with sizes and age structure of families. The existing scales for the Family Budgets, for instance, were constructed using the idea that equal proportions spent on food signify equal levels of well-being. However, the published scales on which they are based[3] required substantial "smoothing" in order to meet simple consistency and plausibility tests.

The Committee reviewed existing research on the subject, carried out new data analyses, and spent much meeting time on the problem of developing more conceptually appropriate interfamily equivalence scales than currently exist. In particular, systematic research was undertaken in an effort to develop improved equivalence scales from the behavioral patterns evidenced in the 1972-73 CES data, both within and without the methodological framework of a linear expenditure system. The results were inconclusive and not demonstrably superior to the widely accepted poverty threshold equivalents.[4]

The Committee recommends that the basis for the Family Budget equivalence scales be the updated Orshansky "poverty cut-offs" (see Fendler and Orshansky, 1979). The new Orshansky scales are mainly determined by the cost of the "thrifty" food plans as developed by USDA. The specific equivalence scales we recommend, expressed relative to our reference standard of the two-parent, two-child household expenditure median, are shown in Table IV-2. They are identical to the updated Orshansky scales for family sizes 3, 4, 5, 8 and 9. The intervening family size adjustments have been smoothed to provide a more regular relationship among the different family sizes.

We do not place very much weight on our decision to recommend these particular scales. There are several versions of the Orshansky scales in existence. Any one of them would have been about as satisfactory or unsatisfactory to us. We would like to stress the need for uniformity in government usage of such scales, however, and to urge the BLS to keep abreast of other government efforts to develop such scales, with a view to achieving as much uniformity with the practice of the other government agencies as is feasible.

This general approach is similar to BLS current practice. In one major respect, however--aged households--our recommendations depart substantially from past practice. In contrast to the previous procedure, in which a separate and independently derived budget was developed for a retired couple, we recommend that adjustments be made for the aged within the same equivalence scale framework.[5] We agree that the aged should be broken out from the overall set of households, because there are good reasons

TABLE IV-2

RECOMMENDED EQUIVALENCE SCALE AND UPDATED VALUES OF AMERICAN FAMILY EXPENDITURE STANDARDS FOR 1979

No. of Persons	Equivalence Scale	Social Minimum Standard	Lower Living Standard	Prevailing Family Standard	Social Abundance Standard
1 aged	.50	$ 4,032	$ 5,376	$ 8,064	$ 12,096
nonaged	.54	4,355	5,806	8,710	13,064
2 aged	.61	4,919	6,559	9,839	14,758
nonaged	.67	5,403	7,204	10,806	16,210
3	.80	6,452	8,602	12,903	19,355
4	1.00	8,064	10,753	16,129	24,193
5	1.20	9,677	12,903	19,355	29,032
6	1.39	11,210	14,946	22,419	33,629
7	1.57	12,661	16,882	25,323	37,984
8	1.74	14,032	18,710	28,064	42,097
9	1.90	15,322	20,430	30,645	45,968
10	2.05	16,532	22,043	33,064	49,597
11	2.19	17,661	23,548	35,323	52,984
12	2.32	18,710	24,946	37,419	56,129
13+	2.32+ .12 for each over 12	18,710+ 967 for each over 12	24,946+ 1,290 for each over 12	37,419+ 1,935 for each over 12	56,129+ 2,903 for each over 12

Note: This table assumes no real growth in Median Income from the 1978 value for 4-person household.

to expect that the state of inventories, as well as the level and nature of needs, are different for them. We, therefore, include in our equivalence scales distinct adjustment factors for both 1- and 2-person aged households. The possibility of assessing independent standards--based, say, on the median of the expenditure distribution of the aged--was rejected because such a separate standard would tend to validate the status quo, no matter where it stands relative to the rest of the population. In particular, policies that redistribute toward (or away from) the elderly would fail to be reflected in greater numbers of households living above (or below) the various standards. The standards themselves would move up (or down) as a direct consequence of the policy change.

4. Future Development of the Standards and the Equivalence Scales

As has been indicated in Chapter III and is developed further in Chapter VIII, the Committee regards with enthusiasm the potential of direct survey measurement as the basis for deriving the Family Budget Standards. In terms of the four standards developed here, for example, all of them might be assessed independently by a survey or, alternatively, one or more could continue to be strictly relative (i.e., multiples of the central standard, which would simply be determined by survey instead of from expenditure data). We are also optimistic that the survey-measured norms, when evaluated for each family type from the responses of families of that type, will yield direct and self-validating differential values for the various family types. Such differentials could then be converted into index or equivalence scale form, with the potential of providing an improved basis for such scales. Firm recommendations would, of course, be premature at this time. We have, therefore, recommended (Chapter VIII) that further research into the potential

of direct measurement of perceived norms be carried out. Of particular importance are (1) the number of norms that can be distinguished and the relative stability of their values over time; and (2) the estimation of equivalence scales, their stability over time, and their consistency over living levels.

We should end this chapter by repeating the limitations that are inherent in any precisely stated norms. However derived, a statement claiming that exactly $10,750 is needed to maintain a Lower Living Standard in 1979 must be recognized as arbitrary. There is obviously no great change in the quality of life between expenditure levels of $10,500 and $11,000. Wide variation in tastes and capacities for stretching the effectiveness of any given budget exists; this will mean that some families fare well at the same level at which others are hard pressed and feel deprived.

CHAPTER V

MOVING THE STANDARDS THROUGH TIME

While the determination of budget levels and the specification for a reference group must remain somewhat arbitrary, a precise, objective and regular updating procedure may provide an unimpaired basis for comparability over time, and as such may prove to be one of the more important features of the Family Budgets Program.

In the selection of an updating procedure the Committee applied the same criteria of relative simplicity and general acceptability as we did to the selection of the Family Budget levels. In addition, we felt these criteria would be well served by defining procedures for dealing with intertemporal changes in the budgets that are consistent with the underlying methodology used for selection of budget levels. We also judged it important that the updating procedure not only take into account inflation, but incorporate any real growth in the economy as well. This means that the updating procedure must allow for changes in prices, productivity, and labor supply. We wanted in addition to prevent distortion of the trend of living levels through time by purely statistical artifacts in the data used. Finally, we felt that the timetrend of the standards should not be distorted by cyclical and transitory downturns in the economy. All this argued, in our view, for basing the updating of the standards on the movement through time of our reference standard--the median expenditure level of the two-parent two-child family. This is, therefore, our basic recommendation.

In order to insulate the trend of our Family Budget Standards from

cyclical and transitory declines, we also recommend that declines be prevented by using as a lower bound for the reference standard the level of the previous year in real terms. This is sometimes referred to as a "ratchet." Thus, taking the reference expenditure standard for 1979 as $16, 129, if the median expenditure level for the reference family in 1980 were $15,900 in real terms, all four of the standards and the family equivalent levels would move up by the amount of price change measured by the CPI. Since we cannot a priori recognize when a decline in real expenditure levels might signal a permanent fall in norms of living, we recommend that this ratchet remain in effect until such time as a conscious decision is made to remove it. Such a ratchet also enables preliminary minimum estimates of the Budget levels to be set from price change data. Revision will be required only if subsequently available survey data show an increase in real levels.

As soon as the new median expenditure estimates for the reference family become available from the CCES they should be used to update the Standards. Until these direct estimates of expenditures are available, we propose that the observed expenditure level from the 1972-73 CES be used as a base, and that it be updated annually in proportion to the median income data from the Current Population Survey (CPS), after appropriate adjustment for changes in saving rates. More precisely, the median income for 4-person families is regularly tabulated by the Census Bureau and published in the P-60 series: Money Income of Families and Persons in the United States; this is the series we recommend for updating the Budgets until new expenditure data are available. These median income figures for 4-person families

should be multiplied by the ratio of Personal Consumption Expenditures to Personal Income for the appropriate year, as found in the national accounts (see Annual Economic Report of the President, Table B21 - Disposal of Personal Income). This number is then linked to the 1972-73 value of the median expenditure of the reference family to produce the final estimate. The resulting series is shown in Table V-1.

The ratchet procedure described above will prevent any decline from the changeover to the Continuing CES being reflected in the standards. One additional adjustment in the procedure should, however, be made. Since the new sample sizes planned for the Continuing CES are relatively small (around 5000, as we have noted) the estimated median for the reference standard families will be subject to standard errors about three times larger than those for comparable CPS medians. When the new survey data become available, BLS should consider alternate ways of deriving more precise and reliable estimates from the sample. It would be possible, for example, to use the evidence from adjacent family size classes to improve the precision of the estimated 4-person median expenditure level.

TABLE V-1

CALCULATION OF AN ESTIMATED CONSUMER EXPENDITURE SERIES FOR PROJECTING THE FAMILY BUDGETS UNTIL NEW EXPENDITURE DATA ARE AVAILABLE

	Median Income for 4-person Family (CPS)	Personal Consumption +Personal Income (National Accounts)	Estimated Expenditure Series Current Dollars	Median Expenditure Series Constant Dollars	Ratcheted Series	Consumer Price Index
1967	8994	.783	6351	6351	6351	100.0
1968	9834	.782	6936	6656	6936	104.2
1969	10623	.777	7444	6780	7444	109.8
1970	11167	.772	7775	6685	7885 R	116.3
1971	11626	.778	8158	6725	8224 R	121.3
1972	12808	.778	8987	7172	8987	125.3
1973	13710	.770	9521	7153	9546 R	133.1
1974	14747	.770	10241	6934	10593 R	147.7
1975	15848	.780	11149	6916	11561 R	161.2
1976	17315	.789	12321	7226	12321	170.5
1977	18723	.790	13340	7350	13340	181.5
1978	20428	.787	14500	7421	14500	195.4
1979	N.A.	.785	N.A.	N.A.	16132 a)	217.4

NOTE: Column 3 = Column 1 · Column 2· .9019, where .9019 is the multiplier required to yield $9250--the value for median expenditure for the 4-person 2-child reference family in the 1972-73 Consumer Expenditure Survey--as the geometric mean of the estimated series for 1972 and 1973. R signifies the years when the ratchet took effect.

a) based on price change only. It compares with $16,129 for prevailing standards for a 4-person unit in Tables IV-1 and IV-2. (Discrepancy is a rounding error.)

CHAPTER VI

DETAILED EXPENDITURE CATEGORIES, TYPES OF HOUSEHOLD TO BE BUDGETED, AND DERIVATION OF GROSS INCOME ESTIMATES

The Family Budget Standards that we recommend in this report have been arrived at and explained so far in terms of total expenditures. As has been argued earlier in the report (Chapter II), levels of total current expenditure on goods and services for consumption constitute, in the Committee's judgment, what is most commonly meant by 'standards of living.' For interpretation of what these levels reflect in other concrete terms, however, two additional steps are needed. One of these is to provide for different family types a breakdown of the total expenditure amounts into major categories which are then illustrated, where possible and useful, with examples of quantity lists of goods that can be afforded within these expenditure levels. The other is to augment the expenditure standards up to gross income budgets that would be sufficient to allow maintenance of the specified living levels. Both these kinds of elaboration are well precedented in the current Family Budgets program, and the Committee recommends the adoption of procedures to provide similar elaboration for various types of household.

1. Detailed Expenditure Categories

The current Family Budgets show expenditure totals separately for food, housing, transportation, clothing, personal care, medical care, and a residual category of other family consumption. These items add up to total family consumption--a concept equivalent to our expenditure standards. We recommend that expenditure shares continue to be calculated for the same

categories. The procedure we recommend for their derivation is, however, different from current practice.

For the current budgets, the amounts for the various expenditure categories within the total budget have been derived directly from the quantity list of specifications that was priced out to arrive at the budgets for 1969, the last time pricing was carried out for determining the cost of the budgets. (Since that time the budgets have been updated simply by using the CPI components that relate to the several expenditure categories.) Even in 1969, as we have noted, the correspondence between the allocation of the Family Budget at the Intermediate Level and the way actual families of that type and at that income actually spent their resources was not close. (Nor, indeed, was there a specific intention that there should be a close correspondence.) Since 1969, actual spending patterns have diverged progressively further from the budget allocations. This is particularly noticeable in the cases of transportation, on which families now spend a greater share than the budget provides, and food, on which families spend a smaller share.

The prospect of having the CCES affords an excellent opportunity for regular observation of actual expenditure patterns. This opportunity should be exploited. Until data from the new surveys become available, we recommend that descriptions of consumption patterns be derived from the 1972-73 CES data, with attention drawn to the fact that evidence supporting those patterns is already quite old and that substantial revisions can be expected when more timely data are available.[1]

In current BLS practice, the Family Budgets, as mentioned, are specified overall and in detail for two family types--the 2-adult 2-child nonaged

household, and the retired couple. For the latter family type, consumption expenditure is considered to be equivalent to income. For the nonaged 4-person family, however, four additions are made to consumption expenditures in order to arrive at a total budget--the equivalent, in our terminology, of gross income.

With respect to providing detailed expenditure breakdowns for the aged separately from the nonaged, and treating consumption expenditure for the aged as equivalent to income, the Committee recommends that past practice be continued. The Committee departs from previous practice, however, in that we recommend separate expenditure breakdowns for more family types than simply those two. Also, the additions to consumption expenditures that we recommend in order to arrive at gross income estimates for the nonaged differ somewhat from current practice. Let us discuss each in turn.

2. Types of Household for which Detailed Expenditures Should be Shown

In the past, budgets were shown for two types of household at each Family Budget level. Considerable public and policy interest, which the Committee shares, has been expressed in showing detailed expenditure allocations for a wider variety of household types. Interest, in particular, attaches to persons living alone, both aged and nonaged; to single-parent households; and to households with many children. Modern estimation techniques make it feasible to provide detailed breakdowns for many more types of household than can manageably be presented. The Committee viewed its task, therefore, as identifying a series of family types that would encompass an appropriate variety of households without unduly encumbering with numbers the users of the standards.

We recommend that detailed expenditure categories be shown for six distinct household types:

(1) The 2-adult, 2-children unit
(2) The 2-person aged unit
(3) The single nonaged unit
(4) The 1-parent, 2-children unit
(5) The 2-parent, 4-or-more-children unit
(6) The single aged unit

As can be seen from Chart VI-1, the choices we have made allow the expenditure patterns of various types of family to be compared in a systematic way:

For a 1-person family, aged versus nonaged
For the aged, 1- versus 2-person family
For 2-child family, 1 versus 2 adults
For 1-adult family, 0 versus 2 children
For 2-adult family, 2 versus 4+ children

CHART VI-1

HOUSEHOLD TYPES TO BE SEPARATELY SHOWN

		Adults			
		Nonaged		Aged	
		1	2	1	2
Children	0	X		X	X
	2	X	X		
	4+		X		

For the first three types of households we recommend that expenditure detail be shown for each of the four Living Standards. For types (4), (5), and (6), we recommend that expenditure detail be shown for the three lower

levels, omitting the Social Abundance Standard. The reasoning underlying this decision is that few families of these types have incomes at or above the Social Abundance level. Therefore, estimated expenditure levels at the high standard would have to be based on relatively few observations and would, by the same token, be relevant for only a tiny part of the population.

3. Deriving Income Estimates Corresponding to Expenditure Standards

We recommend that consumption be defined as equal to income for the aged. Sources of spendable income for the aged household are quite heterogeneous and vary particularly as between taxable and nontaxable sources. A wide variety of nominal gross incomes could, thus, be consistent with financing a given total expenditure level--depending upon income sources and, indeed, upon whether there is an accumulation of assets from which retirement consumption can be financed. Since no obvious generalization or typical pattern exists that would justify the assumption that there are, on average, significant additional categories and, if so, what they are, we think the best procedure is to attempt no adjustment up to gross income. So far as the aged are concerned then, the Budget can be interpreted as being that of a retired couple whose spendable resources come principally from nontaxable sources, such as Social Security, some private pensions, or withdrawals from accumulated assets.

For nonaged or working groups, it is much more important to consider the items which make up the difference between gross income and expenditure for current consumption. In the current Intermediate Family Budgets, the total budget is a third higher than total consumption expenditures, most of the difference being accounted for by payroll and income taxes. Clearly, this is the most

important item to be added to the expenditure budgets. Several other kinds of augmentation must also be considered, namely, life insurance and charitable contributions, savings, work-related expenses of additional workers, and child care.[2] We shall discuss each in turn.

Taxes. The basic principle for tax augmentation underlying our recommendations continues to be one of limiting this adjustment to taxes levied on income. Also following current practice, we assume that all income taxes come from taxable wage and salary earnings. Consequently, the taxes must include Federal, state, and local income taxes where applicable, and the employees' contributions to payroll taxes such as Social Security and Disability Insurance.

Basically, these are calculations with which BLS has experience in connection with the current Family Budgets. While at present the calculations are carried out separately for each of the cities in the annual budget publication, our recommendation is that these be done separately for each state instead.[3] In addition to the assumption that all income is earned, we recommend that standard deductions and exemptions be assumed in calculating the income tax and that Earned Income Tax Credits be included in the calculations.[4,5]

The family types and levels for which separate tax calculations should be made are as follows:

(a) Single person household--all four levels

(b) 2-adult, 2-child family with one earner--all four levels

(c) 2-adult, 5-child (to approximate 4+ children) family with one earner--three lower levels

(d) 1-adult, 2-child family--three lower levels.

Charitable Contributions and Life Insurance. The current Family Budgets provide for a category of "other items." In the detailed specifications, these consist of three things: an allowance for gifts and contributions

(estimated as a fraction of total family consumption less miscellaneous expenses), a life insurance policy aimed at "providing for the family during a period of adjustment in the event of the death of the breadwinner," and a very small amount for occupational expenses such as union dues, work clothing, and professional association fees.[6]

Gifts and contributions are estimated for the three current Family Budgets at 3%, 3.5%, and 5%, respectively, of family consumption, less miscellaneous expenses. This is intended to cover both contributions to religious or other charitable organizations and holiday gifts and presents to persons outside the immediate family. It is our recommendation that the latter portion be eliminated from the Standards on the ground that such gifts are roughly offset by analogous receipts from outsiders. The multiplier we recommend, therefore, is a flat 2% of current consumption for charitable contributions only. There is some plausibility to the argument that charitable contributions are income elastic, but over the income ranges we are discussing the share remains roughly constant.

For life insurance, current practice aims at providing a premium for a policy that would yield approximately one year's income of "the breadwinner." Such policies apparently cost around 2.5% of the consumption expenditure total. We propose that this allowance be continued at a flat 2.5% level.[7]

These two items, then, allow for a 4.5% augmentation of the consumption expenditure levels.

Savings. The present practice makes no allowance in the Family Budgets for savings. This may be justified on the ground that, like other inventories, families can be assumed to have basic inventories of durable goods and of liquidity or credit for "rainy day" needs. We regard such a practice as particularly sensible in view of the fact that the standard family of the current

Budgets has a household head aged 38 with children about to go into high school. This is not, according to most studies of saving behavior, a period in which there occurs voluntary saving beyond the amounts required for servicing a mortgage and pension contributions required as a condition of employment.

The Committee recommends that current practice, which makes no allowance for savings intended to provide bequests for children, be continued. This is consistent with the general strategy of assuming that the net value of interhousehold transfers is zero. However, the specification of a more varied range of household types has, in the Committee's judgment, made it important to consider some allowance for saving for some of the family types.

For households whose principal adults are between 40 and retirement--and increasingly so for those at the Prevailing or Social Abundance levels--some saving can be expected in order to provide for continuation of expenditure levels comparable to those prior to retirement. Social Security benefits as projected would not provide sufficient replacement of earlier living levels. We therefore recommend that further research be undertaken to explore, from the CCES and other national surveys, both the typical patterns of discretionary saving and also the patterns of saving that would be associated with typical lifetime earning and family structure scenarios. This research should be based on the presumption that discretionary saving aims at smoothing the lifetime course of living levels. Pending the outcome of this research, however, we recommend that no routine augmentation of the expenditure budgets be made for savings.

Work-Related Expenses. The standards we recommend are based on an average of 1- and 2-worker families. The Committee recognizes the principle that in households with an additional worker, allowance should be made, for example, for extra transportation and clothing costs. Examination of general expenditure data has not, however, provided evidence of how large those allowances should be.

For 2-worker households, therefore, the Committee recommends an adjustment to allow for the extra work-related costs involved, (not including child care), to be based on the 20% of gross income allowed in the Food Stamp Program for work expenses for the household.[8]

Child Care. Our assumption that all income is earned requires the presumption that for a 1-parent household with children care arrangements will be necessary in order that the parent may work. Similarly, for 2-parent households with children where both adults work, it must be presumed that child care arrangements of some sort are required. Prevailing patterns of behavior make it impossible to specify a fixed allowance. In the first place, there is a variety of needs that depend upon a child's age, local school hours, etc. Second, satisfactory child care appears to be secured by families at very different levels of cash outlay. Full cost day care of high quality for a preschooler is expensive (several thousand a year), and while some people do pay these amounts, it would be quite unrealistic to assume that most do. The less formal, often family-related, arrangements may involve little or no direct outlay. But here again it would be unrealistic to assume that most households have such opportunities. Consequently, for applications on an individual basis, any average figure would be generally misleading and should be replaced by the facts with respect to the individual case at hand.[9]

For statistical and analytic purposes, an average day care expenditure may be of some value. We recommend that BLS carry out a study using data from both the CCES and SIPP--in conjunction with other available comprehensive survey information relating to child care expenditures of working parents--to develop such an average.

CHAPTER VII

INTERAREA DIFFERENTIALS

A significant part of the task before this Committee lies in the area of locational or interarea differences in the cost of maintaining a given level of living. This issue arises repeatedly in the policy arena--both at the legislative level, where interarea funding allocations may be conditional on relative living costs, and at the administrative level, where eligibility for program participation may be linked to "real" income levels.

A great many users of the interlocational adjustments in the existing Budgets need information which enables them to assess the impacts on individuals of locational change. In the Committee's judgment, a fixed weight price index is the appropriate mechanism to serve this purpose. We, therefore, propose that an interarea price index, or a set of them for different consumption categories, be estimated on a regular basis, making maximal use of the price data currently gathered for the intertemporal price indexes of the CPI. These indexes should be fixed-weight measures of relative prices at the different sample locations at each point in time, scaled to achieve a U.S.-weighted average of 100. They should be calculated with as much geographical detail as sampling will permit. Certainly, prices can be shown for the self-weighting cities currently in the CPI sample. Averages for regions and nonmetropolitan areas by city size should also be produced for comparison with the U.S. average. The Committee's early conclusion that fixed-weight interarea price measures would form a part

of our final recommendations reinforced the BLS decision to contract for the research and development of a "framework for Interarea Pricing." More specific recommendations must await the results of that research.

However, for users really interested in equivalent levels of living, where equivalent means equally satisfactory or equally nondeprived, there is no such easy solution.

The issue of whether income or expenditure varies by location can be well answered with available data. In broad terms the South has both income and expenditure levels distinctly below those prevailing in other regions. In terms of relative urbanization, income and expenditure levels are generally distributed around higher levels in large metropolitan areas than in smaller cities, which are higher, in turn, than in towns and rural areas. These findings are not new; in fact, the general conclusions have not changed much in recent decades. But this evidence does not imply that average living levels follow the same patterns. If achieving a given level of living requires about the same expenditure anywhere in the country, for example, then these income or expenditure figures would simply tell us that there are real differences in living levels.

The current Budgets try to capture living level differences by means of two kinds of adjustment in the list of commodities that represents a living standard. The first kind allows for variations in the commodity list which forms the basis for the existing Budgets depending upon climatic or other characteristics of the location. Consequently, more heating fuel and more winter outerwear is incorporated in cities where the degree-day

average indicated greater need. Transportation has also been adjusted so as to depend upon the availability and use patterns for public transit facilities.

The second kind of adjustment is based on differences in average food consumption patterns in different locations. As this worked out, the combinations of food that met nutritional standards include more "cheap" items in the South (pork and lard) and more expensive items in the Northern metropolitan areas (beef and butter). This was justified by positing different (perhaps traditional) tastes for food in the different areas, which implied, in turn, that the Northern urban families "required" this more expensive diet.

These food adjustments make up a large part of geographical variation in cost of the food portion of the existing Family Budgets. Table VII.1 shows the relative indexes for the food-at-home component using the regional weights and the U.S. urban weights for all regions, by region and size of urban area. The former reflect the dietary differences that are now embedded in the cost differentials of the published family budgets. When the preference for different foods is ignored and the same foods priced everywhere (as indicated in the second column) there is clearly much less variation. The maximum and minimum are only 6 points different as compared to the existing 14 points; and the South comes out as the highest cost region.

In the Committee's judgment, the Family Budgets should reflect only those differences that can be clearly evidenced as occurring at equivalent levels of living. The existing adjustments for climatic differences seem to us more consistent and noncircular than are the differences introduced by heterogeneous food consumption patterns. Hence, we propose that

TABLE VII.1

FOOD-AT-HOME INDEXES AUTUMN 1973, 4-PERSON INTERMEDIATE BUDGET

	Regional weights	U.S. urban weights
U.S. Average (base)	100	100
North East	108	101
North Central	99	100
South	95	102
West[a]	94	96
By size		
Over 1.4 million	104	101
.25 to 1.4 million[a]	96	98
50-250 thousand	97	99
2500-50 thousand[a]	98	100

NOTE: These numbers were prepared for the Committee by M. Sherwood from unpublished BLS materials.

[a] excludes Anchorage, Alaska, and Honolulu Hawaii

locational adjustment factors be estimated for fuel, and possibly clothing, that can be related to climatic differences among states. The differences in energy requirements to maintain dwelling temperatures within a zone of comfort (consistent with federal guidelines for conservation) can be estimated from engineering studies. These estimates combined with price data on relevant energy sources would yield a sound basis for adjusting the housing costs among states (allowing for cooling as well as for heating).

The climatic adjustments should be estimated on a state-by-state basis, and introduced as part of the tables that show the augmentation of expenditure up to a gross income number (See Chapter VI). The expenditure entry should reflect the climatic adjustment and, along with the taxes that vary from state to state, provide an estimate of how much gross income is required in each state to achieve each of the levels of living. The Family Budgets as such would no longer, therefore, be detailed on a city-by-city basis.

There is not at present any equally sound basis for deciding the size of a clothing adjustment, although there is apparent validity to the idea that more severe winters require probably a greater range and certainly a greater weight of clothing. The total share of clothing is fairly small, however, and it is doubtful that differences from this source would amount to as much as one percent of total expenditure levels. Consequently, we do not regard the case for adjusting the clothing expenditures by state to be urgent.

With respect to food adjustments, we recommend strongly that the

existing pattern of differences in food expenditures, which are justified simply on the basis of prevailing regional differences in diet, be eliminated. Evidence fails to confirm that such differences reflect more than persistently lower or higher real living levels.

The transportation adjustment in the current Budgets has been related to the characteristics and availability of public transport in specific cities. Our review of the empirical behavior of expenditures on transportation revealed that transportation expenditures trade off in predictable and plausible ways with shelter expenditures and that the total expenditure, taking the two of them together, is not importantly related to location either by city size or region. Consequently, we recommend that no locational adjustment be made in the transportation category and, similarly, none in terms of shelter beyond the climate-related adjustments mentioned earlier.

Except for the climate-based adjustments we have found no evidence that supports reliable and consistent estimates of differential costs of equivalent living levels, and consequently propose that no further adjustments be made.

When we began our search for an appropriate basis for estimating interarea level of living differences, we were hopeful that a comprehensive method could be developed. But, as in the case of household equivalence scales, our statistical investigations of expenditure patterns failed to turn up consistent and robust findings. Rankings were different for the lower expenditure groups than those for home-owners, etc. The conventional

wisdom that the cost of maintaining a decent life in the South is much less than in the North was decidedly not upheld. Similarly, the largest cities did not seem to be the most costly places in which to live; the smaller cities looked more expensive. These findings were based on the methodology of finding which total expenditure level was consistent both with average spending patterns and with spending enough on food to purchase the Moderate Food Plan of the USDA. The basic problem with all such approaches is that they do not directly involve environmental features, whether of climate, governmental effectiveness, or personal affinity.

Another possibility would be to determine interarea differentials relative to specific performance criteria. One could design a survey to determine the family income levels and histories that are associated with such things as equal likelihoods of full-weight infants, equal likelihoods of surviving to age 20, equal likelihoods of surviving to age 25 and being fully employed at or above the mean industrial wage for persons with five years experience, etc. All of these would yield interesting and probably differing answers. But little evidence of this sort is available at present. What little there is suggests low performance in areas where average measured income is also low. That is, the limited evidence is at least consistent with the notion that measured income differences generally reflect real income differences.

The possibility of using the route of direct surveys of perceived needs exists here, as before. But for the locational equivalence problem,

however, this solution has at least one important drawback. The context-dependence that is the strength of the approach in other aspects would tend to make the norms lower in poor areas (and higher in rich areas) just because they <u>are</u> poorer (or richer). To this extent, the direct survey would yield another circular answer to the question of whether the lower nominal incomes observed in the South reflect equally low "real" levels of living. But there may be ways of tapping interlocational differences by other sorts of survey questions.

Further research is clearly needed on appropriate ways to measure interarea differences in living levels. We recommend that the Family Budgets Program monitor such efforts, and make use of any soundly based findings that may result on this important matter.

CHAPTER VIII

DIRECTLY ELICITING PUBLIC CONCEPTIONS OF LIVING NORMS

The general argument of the Committee has been that Budget Standards which systematically take into account the relativity of lower, intermediate, and higher Standards provide a more useful tool in policy-making than budgets constructed using earlier methodologies. As we have mentioned at several points in the report, we believe this new approach to developing normative budget standards can be even more useful if it is strengthened by eliciting public conceptions of these norms through direct questions (a methodological approach which was described generally in Chapter III). This chapter presents what we think should be done as the next steps toward that end.

1. Establishing a Sound Method for Measuring U.S. Public Conceptions of Living Norms and Equivalences

Although there is a broad range of social science findings which support the direct question approach, there is little in the way of systematic quantitative assessment of the U.S. public conceptions which lie at the basis of the idea of relative normative standards. Some research has been done on a small scale, however, which shows substantial promise (Rainwater, 1974). We, therefore, recommend that a research program be initiated by the BLS, designed specifically to build on these sociopsychological approaches and integrate them with the needed research based on the CCES that we have recommended at several places in the report.

The purpose of the proposed research would be to explore by means of small but representative sample surveys the substantive and methodological issues involved in establishing a sound method for measuring public under-

standings of family size equivalence issues. The results should then be systematically related to studies on the same issues based on spending behavior.

With respect to eliciting perceived standards, it is necessary to ask questions specifying a wide range of living levels. These questions would involve variations on the basic idea of asking people to specify for themselves, and for particularly defined family types, amounts of income they associate with particular levels of living. The verbal descriptors that are used in characterizing budget levels are inevitably arbitrary, but one wishes to know the extent to which the public sees different descriptors as referring to roughly similar levels. Thus, it would be important to establish public conceptions of minimum subsistence, minimum adequacy, a comfortable standard, poverty, amounts necessary to get by, amounts needed to get along, etc. It is also important to investigate the sensitivity of responses to particular slight variations in question wording. The goal here would be to find the most robust ways of asking questions in order to elicit budget standards that approximate those determined to be most useful for policy purposes.

In the case of family equivalences, several different techniques should be explored for determining the implicit family size scales which people actually use to determine income levels that produce a given living standard for different family sizes. Again, the issue is whether some findings are more robust than others derived from seemingly similar lines of questions and, more fundamentally, whether any of them produces scales that are stable and seem sensible.

Two ways of characterizing levels are worth investigating. One uses

descriptive terms as "adequate" or "comfortable" or "lower" or "higher" standards of living; the other is more closely tied to issues of policy, as in questions about incomes associated with a "poverty line," minimum incomes appropriate for families or for persons in retirement, and so on.

A major goal of the research should be to provide information concerning the degree of consensus in American society concerning the incomes associated with different levels of living. It is important to understand the extent to which there are systematic differences among population subgroups (by sex, age, region, city size, type of family, income level, occupation, etc.) in conceptions of incomes necessary for particular living levels. In addition, we need to know not only whether the level of family income affects people's conceptions, but also whether different sources of that family income have different effects, as in the case of wives' contributions to family income, or public transfers. None of these factors is, of course, appropriate in establishing budget standards; but it is important to know the extent to which particular standards can be based on a broad consensus of diverse population subgroups.

Intimately related to the issue of consensus is the issue of the reliability of people's responses to questions about different levels of living. A principal goal should be to estimate the reliability of individuals' responses as a way of separating issues of lack of consensus among individuals in a population from measurement error in individual responses.

A further issue that needs to be investigated by means of the kind of small sample survey we are recommending is that of the interaction between budget level and family size equivalence. It is quite possible that public conceptions of the effect of family size on standard of living are

different at high, middle, and low budget levels.

In addition to questions directed toward developing robust and methodologically sound measures to be used in regular large-scale surveys, the small-scale studies should explore a number of issues important for understanding the significance of the new normative budgets.

One such study should seek to spell out in more detail the ways in which public conceptions of standards of living change over time. Secondary analysis of the original Gallup Survey data (the question about the amount necessary to get along) from 1947 to the present should be carried out to specify in more detail the relationship between public responses and national income, and regional and city size variations in these public conceptions around the overall trend line as these relate to the rate of inflation and the rate of real growth in the economy. Because similar longitudinal data sets exist for Britain and France, it would be possible to determine the extent to which there is a broad transnational pattern of public responsiveness. Exploration of the role of time changes could also be carried out by replicating questions used in Rainwater's Boston and Kansas City surveys (Rainwater, 1974). It would be possible to explore the patterns of change in public conceptions of five different levels of living for different family sizes over the 10-year period since those data were collected.

Another special investigation should explore the feasibility and usefulness of measuring public conceptions--not of the total <u>income</u> level necessary for particular standards of living--but of <u>consumption</u> levels associated with particular standards of living. Thus, it should be possible

to determine how much people feel it would be necessary for a family to spend on food in order to have a given level of living--a minimum level, an adequate level, etc. Similarly, one could explore public conceptions of housing consumption levels associated with these different levels. Explorations along this line might result in a very useful complement to the objective data developed from the CCES.

2. Including Direct Questions on a National Survey

Obviously, the most effective and robust direct questions for use on a national scale can only be formulated at the end of the research program just outlined. When this set of questions is eventually developed and incorporated on a regular basis, say in the CCES, it will be of the utmost importance to conduct a methodological exploration to determine whether survey context affects responses in particular ways. That is, it is necessary to find out whether the same questions asked in the context of the CCES (where people's attention is focused sharply on consumption) yields the same patterns of levels and family equivalence as in surveys directed exclusively towards the more sociopsychological issues of public consumption.

We need not await this development, however, in order to make a start in the right direction. The Committee recommends that the set of van Praag direct questions, including the income evaluation question, be immediately incorporated into an ongoing national survey. One possibility would be to add them to the CCES. Another would be to include them in the plans for SIPP. If this is done, they should replace the recent SIPP satisfaction items, which can at best offer only an indirect measure of minimum income

amounts. As we noted in Chapter III, such indirect techniques are likely to produce different results depending on sample and minor wording variations and cannot, in any case, tell us what even a well-defined inflection point on a satisfaction scale means in terms of popularly conceived living standards.

CHAPTER IX

IMPLICATIONS AND EVALUATION OF THE RECOMMENDED AMERICAN FAMILY BUDGET STANDARDS

The expenditure standards resulting from the Committee's recommendations for the four budget levels and for the various family sizes have been presented in Chapters IV and V. This chapter spells out the implications of those standards, explored here principally in terms of the 1972-73 Consumer Expenditure Survey data. The reason for this limitation is that this is the only extensive file on the expenditures of households in the last 20 years. Note that the more up-to-date information anticipated from the CCES may change these distributions somewhat.

In these tabulations no adjustments have been made to the Standards for region or city size. At least for the regional case the adjustments based on climatic differences that have been recommended may also result in slightly changed distributional implications. In addition, certain sample exclusions were made in using the 1972-73 data. (These exclusions and some indicators of the consequences are provided in Appendix A). Also, for homeowners, full mortgage payment was included rather than simply the interest on the principal. The argument for this is simply that despite traditional accounting treatment most households regard their total mortgage payment, including reduction of principal, as current shelter expense, and that consequently the behaviors of owners and renters will be made more nearly comparable by such an adjustment.

1. Distributions of Households and Persons Relative to the Proposed Standards

Table IX-1 shows how households are arrayed relative to the four Living

TABLE IX.1

DISTRIBUTION OF HOUSEHOLD UNITS RELATIVE TO AMERICAN FAMILY STANDARDS

	Percent of group					
	less than S.M.S.	less than L.L.S.	less than P.F.S.	greater than S.A.S.	Portion of sample in group	Shares of all below S.M.S.
All Households	13.9	26.0	52.6	19.8	100.0	100.0
RACE						
Black	35.0	51.5	75.1	9.3	10.0	25.3
Non-Black	11.5	23.2	50.1	21.0	90.0	74.7
REGION						
South	21.2	33.7	58.4	17.3	30.2	46.2
Non-South	10.7	22.7	50.1	20.9	69.8	53.8
URBANIZATION						
Large Metro	9.7	19.9	44.7	25.4	41.0	28.6
Smaller Metro	12.2	24.3	51.6	19.4	27.9	24.6
Non-Met Urban	18.6	32.3	60.5	14.9	13.1	17.5
Rural	22.6	38.0	66.3	11.4	18.0	29.3
FAMILY TYPE						
Non-Aged Childless	8.5	17.2	40.4	30.2	35.3	21.7
Non-Aged 1-3 child	5.5	14.9	44.7	19.3	31.5	12.5
All Elders	28.3	46.2	71.3	11.2	21.3	43.5
Non-Aged 4+ child	22.0	42.0	76.8	4.3	6.1	9.6
One-Parent	30.3	48.7	75.1	7.6	5.9	12.8
FAMILY SIZE						
One Person Non-Aged	16.6	29.3	56.4	19.5	13.0	15.5
One Person Aged	41.2	62.2	81.6	5.4	10.1	30.1
Couple Non-Aged	5.5	13.1	36.2	31.2	19.0	7.5
Couple Aged	15.0	29.8	61.2	16.6	9.2	9.9
3 Persons	7.0	15.4	40.1	28.1	16.0	8.1
4 Persons	6.5	17.2	44.3	20.6	15.0	7.0
5 Persons	10.6	23.1	56.3	13.8	8.9	6.8
6 Persons	16.3	31.2	64.5	8.1	4.7	5.5
7 Persons	27.4	42.9	75.6	4.6	2.2	4.3
8 Persons	33.6	50.3	80.5	3.8	1.0	2.3
9 Persons or more	38.6	65.4	93.5	0.8	1.1	3.0

Standards we have defined. Slightly more than half are below the Prevailing Family Standard. Approximately one in four families are below the Lower Living Standard. Nearly one in seven are below the Social Minimum. And one in five are in the fortunate position of living at a level at or above what we have called Social Abundance.

As the table shows, the distributions are quite different for different types of families. Black households are three times as likely to be below the Social Minimum as other families and less than half as likely to be above the Social Abundance Level. The distribution by region showed no substantial difference among the North East and North Central and West regions, so these were combined into a non-South category, which shows a marked contrast with the South. The South contains about 30 percent of all households, but has 46 percent of the households living below the Social Minimum. The climatic adjustment we have recommended may work somewhat in the direction of bringing the distribution of Southern families more in line with the rest of the country, but even after such adjustments, the distribution of Living Levels can be expected to remain lower in the South.

In terms of relative urbanization, there is an evident shift of the distributions to Lower Levels as one moves from metropolitan areas, through smaller ones, on to the rural areas. These findings are very similar, of course, to those that have been noted in other studies of income distributions.

The lower panels of Table IX-1 show the distributions for major family types and for the family size categories distinguished in our equivalence scales (see Chapter IV). The nonaged childless and smaller childed families

are conspicuously better off in terms of having lower relative numbers living below the Social Minimum and higher ones living at or above the Social Abundance Standard.

For many purposes, the distributions of persons are more interesting than those of families. Such distributions are shown in Table IX-2. Most notably, these tables allow us to examine individuals by age. It is evident that the persons at both ends of the age range--children as well as elders--are more likely to be living below the Social Minimum or Lower Living Standards. It can also be seen that the sharp differences between blacks and nonblacks are fairly closely paralleled for all age groups. Otherwise, the distributions generally tell similar stories to those shown in the family tables. The relative importance of the different family types in the distributions does change. Only about 30 percent of household units contain children, whereas 58 percent of persons live in such households. Only 6 percent of all household units contain two adults and four or more children, but such units contain more than 26 percent of all persons living below the Social Minimum.

2. Detailed Expenditure Allocations of the Four Living Standards

The allocation of expenditures among major spending categories is illustrated in Figures IX-1 and IX-2. These are examples of how budget allocations are drawn from actual behavior. The first figure displays the allocations for the six household types that we recommend, shown for homeowners at the Prevailing Family Standard. In that figure the two columns in the middle correspond to the two types currently budgeted. There are evident differences among the family types--smaller households tend to spend

TABLE IX.2

DISTRIBUTION OF PERSONS RELATIVE TO AMERICAN FAMILY STANDARDS

	Percent of group					
	less than S.M.S.	less than L.L.S.	less than P.F.S.	greater than S.A.S.	Portion of sample in group	Shares of all below S.M.S.
ALL RACES						
Age						
0-5	17.2	34.0	65.0	9.1	9.1	11.9
6-13	18.2	32.8	63.9	10.0	16.2	22.4
14-17	13.9	26.3	56.2	15.2	8.6	9.1
18-64	8.8	18.7	45.5	23.5	55.7	37.3
65+	24.5	41.6	68.1	13.0	10.4	19.3
All	13.2	25.4	53.5	18.2	100.0	100.0
BLACK						
Age						
0-5	39.0	58.8	82.9	4.9	12.4	13.4
6-13	43.7	64.3	86.4	3.1	21.1	25.4
14-17	42.8	62.3	88.1	3.7	10.6	12.5
18-64	27.9	45.1	71.3	11.6	48.8	37.6
65+	55.0	71.8	89.0	2.3	7.3	11.1
All	36.1	54.6	79.0	7.5	100.0	100.0
NON-BLACK						
Age						
0-5	13.5	29.7	61.9	9.8	8.7	11.3
6-13	14.0	27.6	60.2	11.2	15.6	21.1
14-17	9.4	20.7	51.2	17.0	8.4	7.6
18-64	6.8	16.0	42.7	24.7	56.5	37.1
65+	22.0	39.1	66.4	13.9	10.7	22.8
All	10.4	21.8	50.3	19.5	100.0	100.0
REGION						
South	21.9	35.0	59.9	15.8	30.4	50.5
Non-South	9.4	21.2	50.7	19.2	69.6	49.5
URBANIZATION						
Large Metro	9.0	18.9	45.4	23.8	40.2	27.4
Smaller Metro	11.5	24.3	53.3	17.1	28.3	24.8
Non-Met Metro	15.8	29.1	58.5	14.5	12.2	14.6
Rural	22.7	38.4	67.6	10.3	19.3	33.2
FAMILY TYPE						
Non-Aged Childless	6.3	13.7	35.6	34.1	22.3	10.7
Non-Aged 1-3	5.8	15.6	45.9	18.3	43.8	19.4
All Elders	24.6	41.2	68.1	13.1	12.1	22.5
Non-Aged 4+ Child	26.4	51.1	68.8	3.8	14.6	26.4
One-Parent	38.2	56.2	79.8	6.2	7.2	21.0

ALLOCATIONS OF CONSUMPTION EXPENDITURES FOR HOMEOWNERS AT THE PREVAILING FAMILY STANDARD

~ COMPARISONS FOR SIX HOUSEHOLD TYPES ~

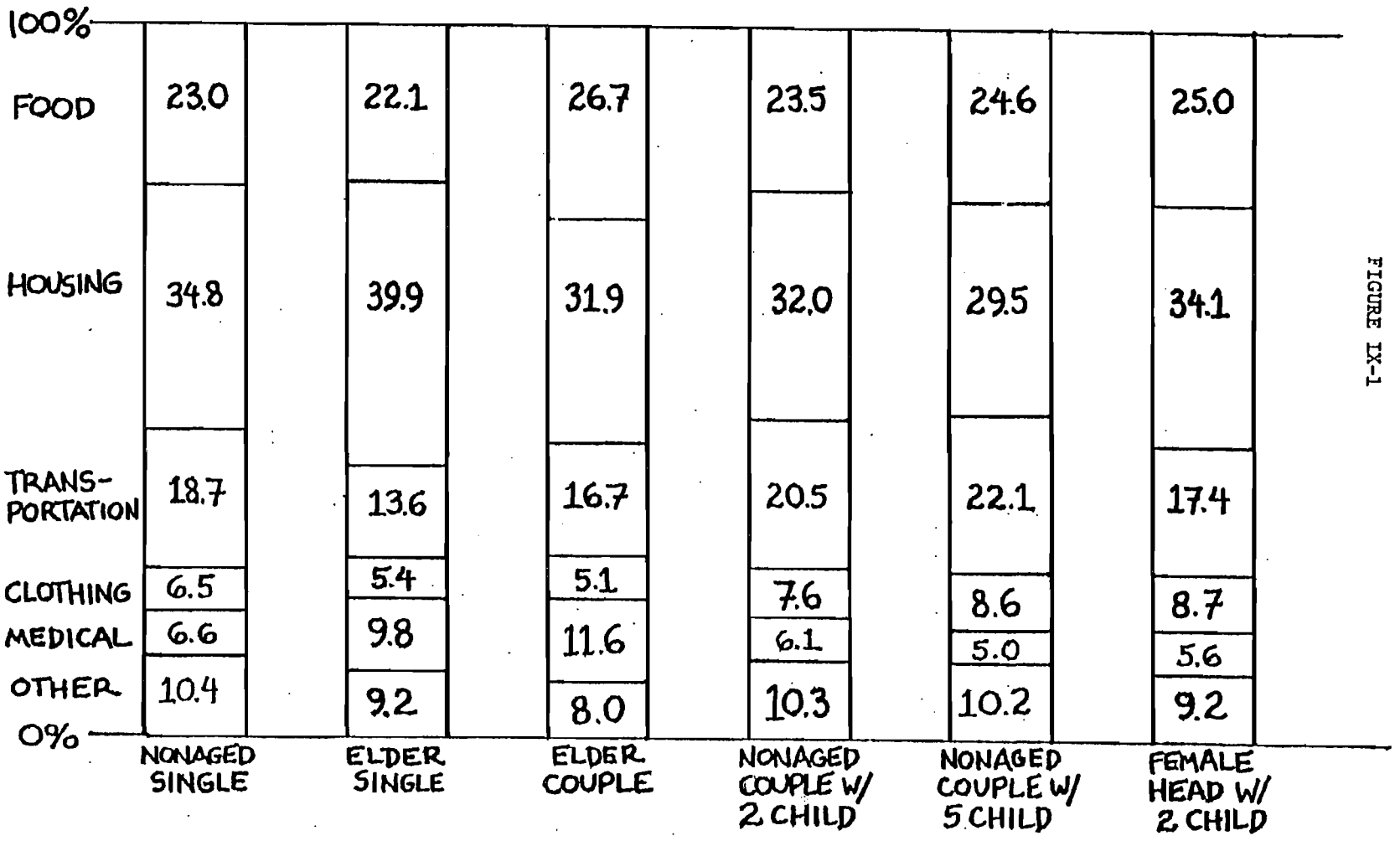


FIGURE IX-1

relatively more on housing and less on transportation. But none of the contrasts are as sharp as those between the allocation in the current budgets and those shown in the tables. For food, the current budgets allocate 31 percent for the retired couple and 33 percent for the 4-person family. In compensation, the existing budgets allow only 9½ percent and 11 percent respectively for transportation. It should also be noted that the shares shown in the figure correspond to greatly different total amounts among the family types--at the Prevailing Family Standard in 1979 prices, the total consumption would be $8,064 for the Single Elder, and $25,323 for a couple with 5 children.

The second figure (IX-2) shows how the shares vary for the reference-type family at the four different levels. There is a clear tendency for the food share to decline at higher standards, falling by nearly one-third as expenditure levels are tripled in going from the Social Minimum to Social Abundance. Transportation shows a correspondingly high elasticity--increasing its share by nearly half over the same range. In combination, transportation and housing pick up most of the share relinquished by food. The current budgets display qualitatively similar elasticities but, as noted above, are generally too high on food and too low on transportation expense.

The methods used in estimating these expenditure shares is described in Appendix B, and a more complete set of tables in Appendix C shows the allocations for all of the family types, at all levels, separately for renters and homeowners. In these tables, housing is disaggregated into three components--shelter, household operations, and household furnishings--and a small category of personal care expenditures is broken out of the "Other

ALLOCATIONS OF CONSUMPTION EXPENDITURES FOR NONAGED COUPLE WITH TWO CHILDREN AT FOUR LIVING STANDARDS (HOMEOWNER)

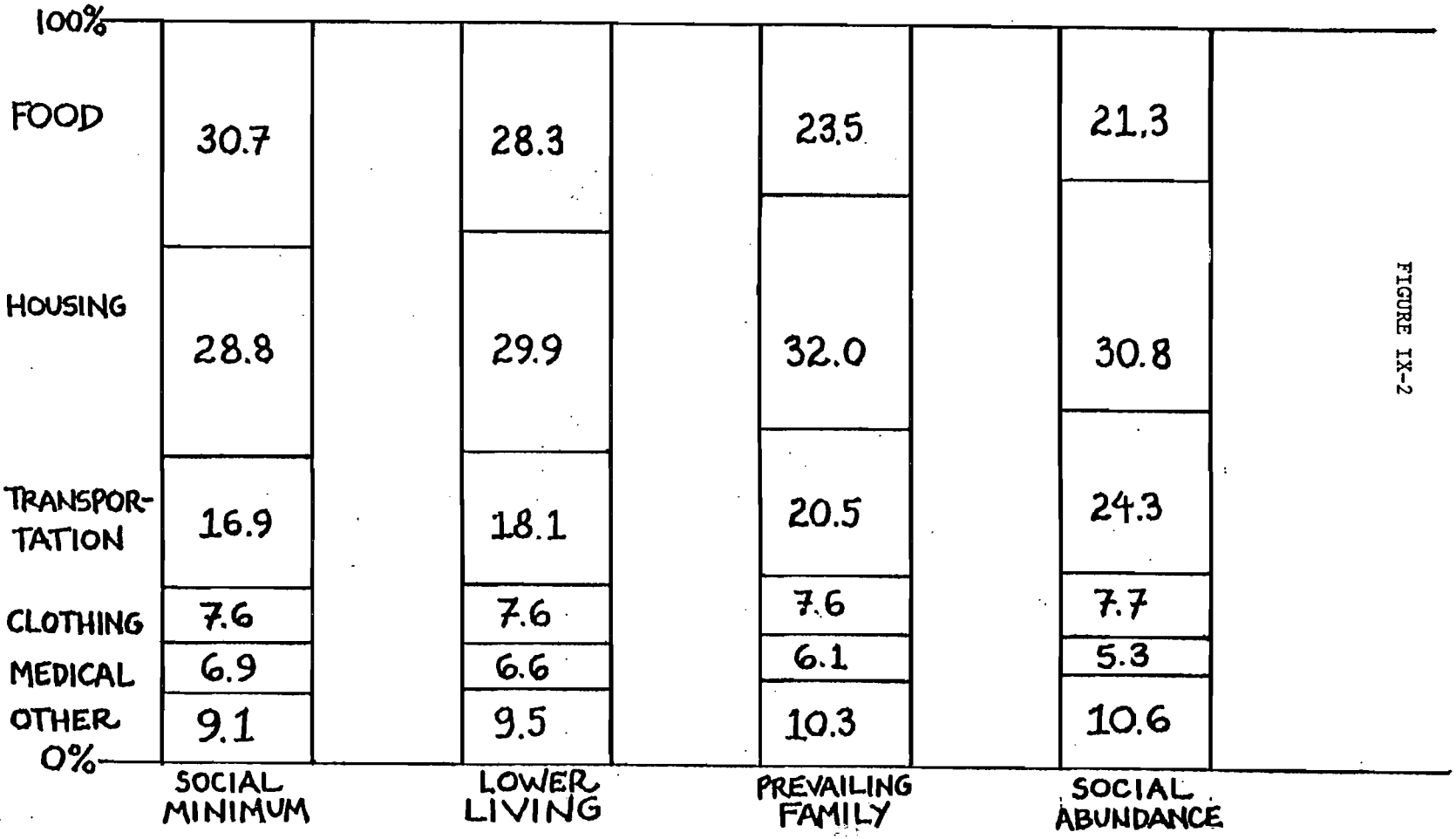


FIGURE IX-2

Consumption" category in the figures.

In addition, the Appendix C tables indicate the ratio of three income sources to the total expenditure level. The sources are: Earnings, Non-Welfare Transfers,[1] and Welfare Transfers. As expected, Non-Welfare Transfers are a major source of income for the elder categories, being more important than earnings even at the Social Abundance level. Substantial shares of expenditures are financed by welfare only for the female headed units, but even at the Social Minimum, such families on average earn 30-45% of their total expenditures.

The annual document envisioned in our Summary Recommendation VII should include the following kinds of detail to amplify the interpretability of the budget allocations. First, the Food Nutrition Service of the USDA should be commissioned to develop Food Plans meeting the currently accepted nutritional standards within the cost levels that are observed at the four Standards for each of the family types. Such plans might be revised annually or at least as often as more up-to-date information on dietary patterns becomes available to the USDA. Second, the Annual Housing Survey should be exploited to form descriptions of the characteristics of typical rental housing (1) which currently costs an amount equal to the observed shelter allocations at the various Standards, and (2) which currently meets the size and other qualifications for providing "standard housing" of the various household types. The other major category of expenditures--transportation--should also be expressed in terms of a specific combination of automobile amortization, maintenance expense, and mileage. These scenarios should include qualifications noting that some people deliberately pay more for rent in order to reduce transpor-

tation costs, and vice versa, and that in some locations public transport may be available to offset private automobile costs.

The dollar allocations and the commodity-specific descriptions for these three major categories should be regarded as important aspects of the statement of norms in the Family Budget Program. Many users need this information to understand what the budgets mean and to evaluate their reasonableness for the uses intended. These three major categories account for over three-quarters of total consumption expenditures. The balance is made up of a wide variety of goods and services, and the Committee does not recommend attempting detailed itemization for such categories.

3. Further Implications and Description of the Four Living Standards

In this section we discuss several examples of a method for contrasting differences in average family performance at the various Living Standards. One can compare, for example, the cost of the USDA Lower Food Plan for a particular family type with actual expenditure as estimated from the CCES for that type at the various standards. One can then examine how the probability of spending that much or more differs among the four Standards. This can be done separately for the major family types or for larger aggregations. Such probabilities are shown in Table IX-3. The A panel shows the probabilities relative to the Lower Food Plan, and comparable estimates follow in panels B and C for the Moderate and Liberal Food Plans. While the probability of spending enough to buy the Lower Budget Standard increases smartly when going from the lowest to the highest Standard, it is noteworthy that as many as 10-12 percent spend less than the Lower Budget even at the Abundance Standard. Half of the nonaged single persons spend

TABLE IX-3

A. ESTIMATED PERCENTAGE OF UNITS AT FOUR STANDARDS WHO SPEND MORE THAN LOWER FOOD PLAN

Family or Unit Type	Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	20.4	35.3	63.8	82.4
1-parent 2-child	25.2	40.1	68.7	78.7
Single person (nonaged)	49.0	59.0	76.3	87.8
Elder couple	51.6	62.6	80.6	85.2

B. ESTIMATED PERCENTAGE OF UNITS AT FOUR STANDARDS WHO SPEND MORE THAN MODERATE FOOD PLAN

Family or Unit Type				
4-person reference	3.5	14.0	37.1	63.5
1-parent 2-child	5.8	17.1	39.8	56.4
Single person (nonaged)	35.7	45.9	65.1	81.5
Elder couple	29.0	41.4	64.2	86.6

C. ESTIMATED PERCENTAGE OF UNITS AT FOUR STANDARDS WHO SPEND MORE THAN LIBERAL FOOD PLAN

Family or Unit Type				
4-person reference	0.0	1.5	14.5	37.6
1-parent 2-child	0.2	9.1	27.9	42.2
Single person (nonaged)	25.4	33.9	50.6	68.6
Elder couple	10.4	21.5	42.8	63.1

as much as the Liberal Food Plan at the Prevailing Family Standard, whereas only one out of seven 4-person reference families spend a comparable amount at that Standard.

Figure IX-3 displays the performance probability functions in graphical form for all types of households. Similar functions lie behind the percentages given in the Table IX-3. (Appendix B describes the method used to estimate these functions). Except for the A panel of Table IX-4 below, all the remaining tables in this chapter have been drawn from estimated performance probability functions of this kind.

Table IX-4 provides further information relative to food expenditure patterns and their nutritional consequences. Panel A indicates how the percentage of units showing particular deficiencies decline as higher Standards are considered. These results do not come from consumer expenditure data, but they serve to illustrate the kind of evidence that is valuable in interpreting the meaning of the Standards. Panel B shows that fewer households exceed 25 percent spending on food at the higher standards. This reconfirms the inelastic behavior of food expenditure.

Housing performance patterns can be seen in the panels of Table IX-5. The A panel indicates how the likelihood of crowding declines at higher Living Standards. Crowding evidently is not a serious problem for elderly couples, according to our data; but for larger and younger families crowding is not infrequent at the Social Minimum, although it does decline sharply as families approach the Social Abundance Standard. Panels B and C indicate, respectively, the proportions that spend more than 40 percent on shelter and the proportions that spend more than 50 percent on shelter and transportation

FIGURE IX-3

PERFORMANCE PROBABILITY FUNCTION FOR AVERAGE HOUSEHOLD FOOD EXPENDITURE BEHAVIOR RELATIVE TO COST OF USDA FOOD PLANS

L = Probability of spending more than Lower Food Plan
M = Probability of spending more than Moderate Food Plan
H = Probability of spending more than Liberal Food Plan

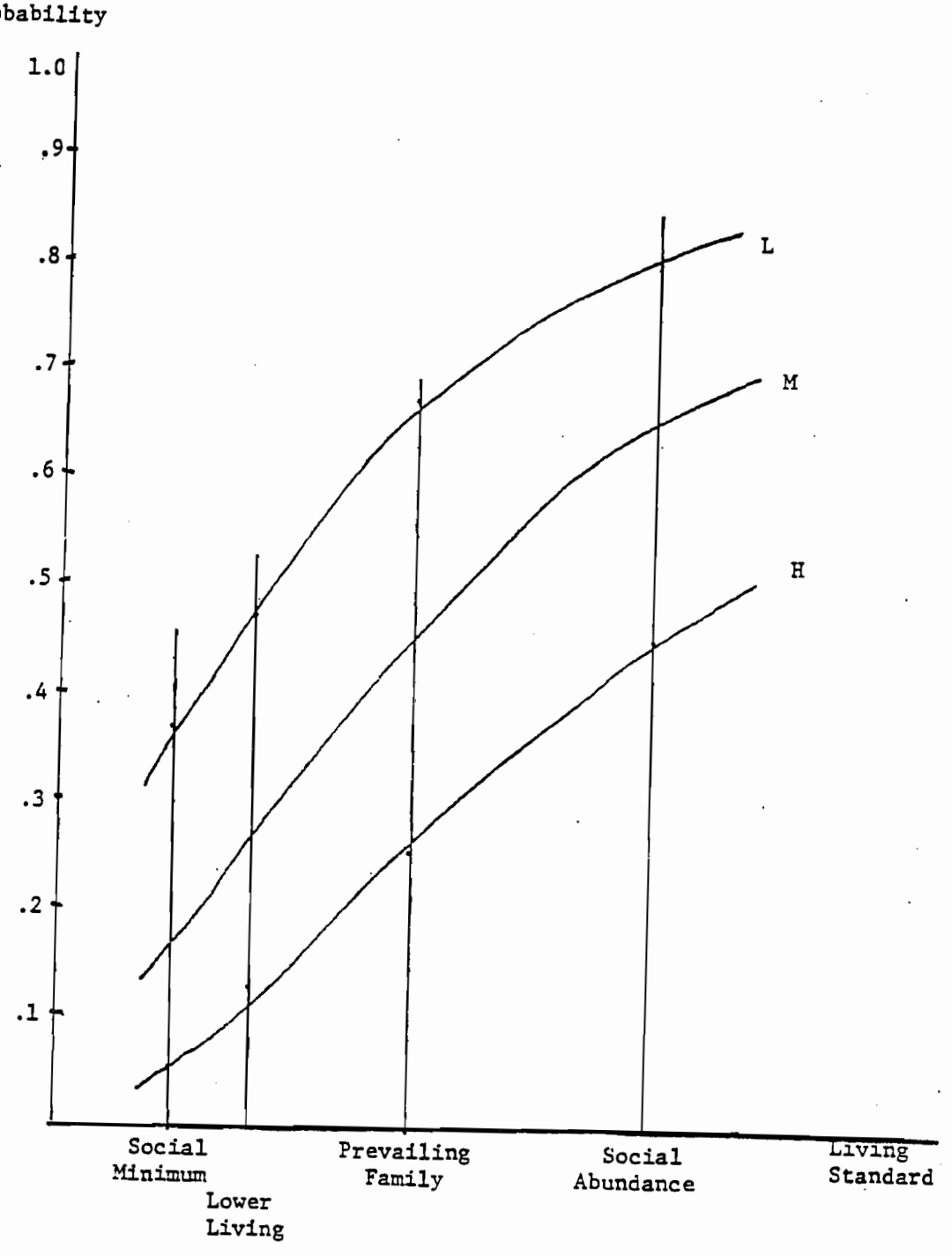


TABLE IX-4

A. ESTIMATED PERCENTAGE OF UNITS HAVING PARTICULAR DIETARY DEFICIENCIES AT FOUR STANDARDS

Family or Unit Type	Social Minimum	Lower Living	Prevailing Family	Social Abundance
At least one out of seven	57.5	54.0	49.0	43.0
Five or more	7.0	5.0	3.5	3.0
Vitamin C	35.0	32.0	22.0	18.0
Protein	10.0	5.0	3.5	3.0

Estimated by interpolation from USDA Household Food Consumption Survey of 1965-66, Report #18, pp. 128ff.

B. ESTIMATED PERCENTAGE OF UNITS SPENDING MORE THAN 25 PERCENT OF TOTAL CONSUMPTION ON FOOD AT FOUR STANDARDS

Family or Unit Type				
4-person reference	59.7	50.6	31.4	14.3
1-parent 2-child	52.7	46.5	32.6	12.2
Single person (nonaged)	49.3	42.3	28.2	13.6
Elder couple	69.8	61.4	44.1	28.2

TABLE IX-5

A. ESTIMATED PERCENT OF UNITS LIVING WITH MORE THAN ONE PERSON PER ROOM AT FOUR LIVING LEVELS

Family or Unit Type / Level:	Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	30.2	23.8	12.0	3.9
1-parent 2-child	20.5	15.7	7.1	4.1
Single person (non-aged)	N.A.	N.A.	N.A.	N.A.
Elder couple	1.0	0.7	0.2	0.0

B. ESTIMATED PERCENT OF UNITS SPENDING MORE THAN 40% OF TOTAL CONSUMPTION ON SHELTER AT FOUR LIVING LEVELS

Family or Unit Type / Level:	Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	5.3	4.1	2.4	1.7
1-parent 2-child	30.8	23.7	9.6	9.2
Single person (non-aged)	18.8	14.9	8.3	6.0
Elder couple	7.8	6.6	4.7	2.9

C. ESTIMATED PERCENT OF UNITS SPENDING MORE THAN 50% OF TOTAL CONSUMPTION ON SHELTER AND TRANSPORTATION AT FOUR LIVING LEVELS

Family or Unit Type / Level:	Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	12.3	15.3	22.9	33.2
1-parent 2-child	31.2	28.8	24.8	34.8
Single person (non-aged)	25.6	27.3	32.2	42.9
Elder couple	4.4	7.2	13.9	24.3

combined. In the former case, the percentage declines at higher Standards, but when transportation is added, the combined proportion tends to increase at higher Standards. Altogether this table suggests that relieving crowding is an important objective for consumers as their living standards increase, and that the higher Standards are also associated with increasing fractions of expenditure devoted to the housing-transportation combination.

Finally, further evidence on the sources of income for families at the various Standards is shown in Table IX-6. Panel A shows the proportion of families that have gross earnings that provide for more than half of what they spend. It is interesting that even for female-headed families and elderly couples at the Social Minimum, approximately one of four is earning more than half of what it spends. Panel B examines the proportion of families that receive appreciable amounts of welfare. As expected, high proportions of the 1-parent households receive such benefits at the Social Minimum, but nearly half of such families continue to receive benefits at the Prevailing Family Standards and above. Even for the 4-person reference family and the nonaged individual, as many as one out of six or seven at the Social Minimum receive some welfare during the year, and that fraction declines only to one out of twenty-five at the highest Standard. Evidently, the patterns of dependence on welfare and earnings for financing expenditures fit general expectations. But it is also evident that it is incorrect to typify any of these families as being wholly dependent on one or the other. Welfare payments are, in other words, found among "prime worker" groups; and "welfare types" turn out to earn a substantial amount of their spending.

TABLE IX-6

A. ESTIMATED PERCENT OF UNITS THAT EARN MORE THAN HALF OF THEIR TOTAL EXPENDITURE AT FOUR LIVING LEVELS

Family or Unit Type	Level: Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	91.7	94.6	98.0	97.1
1-parent 2-child	28.6	42.2	68.6	68.9
Single person (non-aged)	69.1	76.1	87.4	91.3
Elder couple	22.8	25.9	32.0	37.7

B. ESTIMATED PERCENT OF UNITS THAT GET MORE THAN 5% OF THEIR TOTAL EXPENDITURES FROM WELFARE AT FOUR LIVING LEVELS

Family or Unit Type	Level: Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	15.4	11.7	6.1	3.9
1-parent 2-child	74.9	66.1	49.8	47.3
Single person (non-aged)	14.6	11.0	6.1	5.1
Elder couple	5.9	3.1	0.0	0.0

3. Conclusion

The evidence and discussion in this chapter have been directed primarily toward amplifying the meaning of the several Living Standards we have recommended. This has been done by showing how many people and families live at levels above and below the various Standards, what share of expenditures is allocated on average to various uses, and the proportion of families at each level who achieve specified goals or suffer specified deprivations. The Committee feels that this kind of information is necessary to further the interpretation of the Standards, but also that similar analytic tables produced every year on the basis of the CCES would provide a very valuable addition to our social indicators.

The potential for constructing social indicators based on these relative norms suggests that an annual report on the Living Levels of American Families should be considered as a regular part of the publication program of the BLS. Such a publication could combine the updating of all the Family Budget Standards with all of the state-by-state variations. It could show the latest results of the food plans appropriate for the several Standards and consistent with current food prices. It could show the results of the latest housing surveys for evidence of changes in the characteristics of housing affordable at the various Standards and an up-to-date scenario for spending the transportation allocations. The publication could also show the most recent information on income distributions gathered either from the CPS or the SIPP and classified relative to the gross income equivalents of the expenditure Standards. Whenever new information

is available from sources such as the USDA Food Consumption Survey or health status or epidemiological indicators that can be related to the Standards, then one-time articles should also be included in this report.

It would, in addition, be possible to focus attention on the status of various groups that are important for public policy. One thinks, in particular, of the dependent groups--elders and children. Public policies are appropriately directed at the living levels of the least fortunate. The CCES will provide an unprecedented and valuable opportunity to make up-to-date assessments of the relative living standards of our elders and our children at each age group.

In summary, there exists in the combination of a newly conceived structure of normative standards and an expanded and regularly available data base an excellent opportunity for a new set of evidence. This evidence will give a good basis for judging progress or deterioration in the quality of life--as it is experienced both at the middle levels and at the extremes. We would like to see this opportunity exploited, and to see further creative thought given to presentations that enhance the usefulness of such evidence.

APPENDIX A

BASIC DATA SET USED FOR COMMITTEE ESTIMATES

The basic data used to evaluate the recommendations are from the Consumer Expenditure Survey public use tapes. The tables and related regression estimates were obtained from summary tapes that had been subjected to additional editing operations at the University of Wisconsin under the supervision of Professor Smolensky. From these basic tape files (one for each year), these kinds of exclusions were made: households that did not provide complete income reports; households that were only reported for a part of a year (usually newly-formed households); and households for which a value of mortgage repayment could not be inferred. Appendix Table A-1 indicates the gross and net fractions of the sample that were lost by these exclusions. Overall, around 13 percent of the units containing 11 percent of the persons were excluded for one or more of these reasons. The overlap was quite small, amounting to only 5 percent of the combined exclusions.

Total expenditure on current consumption plus the amount of principal repayment on a home mortgage was chosen as the most suitable measure of expenditure (interest, insurance, and taxes are already included in the expenditure total for homeowners). This choice made it necessary to exclude cases where mortgage repayment information was incomplete or mixed with increments of liability in cases where tenure changed.

Appendix Table A-2 shows how the various categories of excluded groups were distributed among the family standard classes, using total consumption expenditure plus mortgage repayment as the measure of consumption. The dis-

TABLE A-1

CONSUMER EXPENDITURE SURVEY SAMPLE EXCLUSIONS
FROM THE FILES USED FOR BUDGET ANALYSES

	Approximate number of households	Percent of sample households	Persons
Because of incomplete income reports	1075	5.38	5.70
Because of part-year expenditure records	760	3.80	1.02
Because of incomplete or unusable mortgage payment information	895	4.48	4.57
Total exclusions	2730	13.67	11.29
Less double-counted cases (more than one reason	130	.65	.40
NET EXCLUSION FROM ANALYTIC SAMPLE	2600	13.02	10.89

TABLE A-2

DISTRIBUTION OF SUB-SAMPLES OF HOUSEHOLDS EXCLUDED FROM ANALYTIC FILES RELATIVE TO REMAINING UNITS

Excluded because of:	less than S.M.S.	less than L.L.S.	less than P.F.S.	greater than S.A.S.
Incomplete income reports	11.3	21.6	46.3	25.6
Part-year records	27.1	42.5	67.6	11.6
Bad mortgage data	8.3	18.4	41.9	29.8
All exclusions	14.6	26.2	50.9	22.9
Remaining units	13.9	26.0	52.6	19.8
Effect of excluding mortgage repayments from expenditure	14.2	27.0	54.4	18.4

tribution of the remaining households that were used for the subsequent analysis is also shown in this table, along with the distribution that results if mortgage repayment is included.

The sample inclusions do not appear to have a large net effect on the overall distribution of households, but this is clearly a balancing of sharper differences among the several groups. Nevertheless, it is unlikely that the inclusions will have distorted the remaining sample in any major way, and it is possible to view the results that follow as generally indicative of the full population in the 1972-73 period. The addition of mortgage repayment to the expenditure total clearly increases the amounts for homeowners, and it will all be included in the shelter category of expenditures. But Appendix Table A-2 suggests that this practice does not appear to produce an enormous shift in the combined distribution.

APPENDIX B

METHODOLOGY USED FOR ESTIMATING EXPENDITURE SHARES AND PERFORMANCE PROBABILITY FUNCTIONS

The expenditure share estimates were drawn from a set of least-squares regressions of the several expenditure shares on a normalized, relative expenditure variable introduced as a linear spline (or piecewise-linear) function. Such sets of functions were estimated separately for the various subgroups of household types. More precisely, the expenditure share variables which were the dependent variables in the regressions were formed by dividing each component of total expenditure by total expenditure. This produced nine fractions (for the results see Appendix C) that add up to unity for each household in the sample.

The dependent variable is equal to total expenditures as a ratio to the Prevailing Family expenditure standard appropriate for each household's size and age. This variable, call it "Z", takes on a value of .5 for a family at the Social Minimum Standard, .67 at the Lower Living Standard, etc. The linear spline allowed for changes in slope (knots) at 0.5, 1.0, 2.0, and 4.0 for the relative expenditure variable, Z. Two additional terms allowed the pattern for homeowners to depart in a simple linear manner (in Z) from the pattern for renters.

The estimated allocations in Appendix C result from evaluating these functions at the levels corresponding to the four Standards, .5, .667, 1.0, and 1.5. Such estimates always add up to one if the data satisfy that identity constraint. This same procedure was used to estimate the income

sources as fractions of total expenditure that are shown in the B segments of Tables C-2 to C-9.

This general approach could be used to estimate the allocations when the new evidence becomes available. Alternatively, a version of the linear expenditure system, allowing for normalized variables such as $\bar{z}$, could be developed for this purpose.

The Performance Probability functions in Chapter IX are a version of the linear probability regression model. The dependent variable is binary, 0 or 1, and ordinary least squares are used to estimate the probability of y=1 as a function of a set of variables. In the present case, the main independent variable is the relative expenditure variable, $\bar{z}$, defined above. $\bar{z}$ is introduced as a six-parameter cubic spline function over the interval [0, 5.0]. The knots* were set at 0.5, 1.0, 2.0 and 4.0. This allows the probability of, say, living in crowded quarters, to be quite non-linear and even non-monotone in relation to $\bar{z}$. While this procedure does not preclude predicted probabilities outside the 0-1 range, they are less likely to occur than with simple linear functions. The main advantage over a probit model is in lower computation cost. For samples of the size of the CES, the iterative estimation process for a logit or probit becomes very costly. On the other hand, the samples are large enough to secure acceptable precision without using the most efficient methods available. The primary objective here is to secure compact and interpretable descriptions of the data, and

* In a cubic spline the third derivative is a step function in $\bar{z}$ with discontinuities at the knot values. See Poirier, Dale,"Spline Functions and Their Applications in Regression Analysis." The New Jersey Income Maintenance Experiment, Vol. II, pp. 369-381.

this approach seems to be both effective in yielding summaries and reasonable in cost. It is possible to secure machine-made graphical representations of the performance functions, or to evaluate the functions at appropriate Z-values to form tables of the sort used in Chapter IX.

Several additional variables were included in the performance regressions to allow for differences by region and urbanization. For purposes of standardization the values shown in the tables refer to a medium-sized SMSA in the North Central region. The values for other areas would follow the same patterns and do not show sharp differences. A subsequent report will present the more complete results.

APPENDIX C

STATISTICAL DETAIL ON EXPENDITURE ALLOCATIONS

This appendix presents the full set of budget allocations and corresponding ratios of income sources to expenditure totals. These are shown for all six family types recommended for separate budgeting at these living standards. Only the non-aged single, the elder couple, and the 4-person reference family are budgeted at the Social Abundance Standard.

Separate tables are shown for homeowners (C-2 to C-5) and for renters (C-6 to C-9) and in general there are statistically significant differences between the two groups at each given level. Table C-1 indicates, for four categories, how the proportion of homeowners varies with living standard. In order to provide a single allocation regardless of tenure status, we would propose that percentages like these in Table C-1 be used to interpolate between the owner and renter allocations.

TABLE C-1

ESTIMATED PERCENTAGE OF HOMEOWNER UNITS AT FOUR STANDARDS

Family or Unit type:	Social Minimum	Lower Living	Prevailing Family	Social Abundance
4-person reference	53.9	63.4	80.0	88.3
1-parent 2-child	18.5	28.8	48.1	52.8
Single person (non-aged)	36.5	39.0	43.3	47.2
Elder Couple	72.3	74.8	78.2	81.9

TABLE C-2

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE SOCIAL MINIMUM STANDARD FOR HOMEOWNERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	28.0	28.8	31.4	30.7	31.0	32.4
Shelter	17.7	17.7	12.9	13.7	15.1	19.1
Household Operations	17.5	22.0	17.4	11.5	10.6	16.4
Household Furnishings	3.1	3.1	3.8	3.7	3.8	1.9
Transportation	13.4	7.3	11.9	16.9	16.1	9.5
Clothing	4.9	3.9	3.3	7.6	8.8	8.2
Medical	7.9	11.6	12.6	6.9	5.6	5.7
Personal	1.7	1.5	1.7	1.2	1.1	0.8
Other	5.8	4.1	4.9	7.9	7.9	6.0
B. Income Sources						
Earnings	78.9	14.8	29.6	167.0	137.0	47.2
Non-Welfare Transfers	28.5	88.8	110.1	3.9	1.9	22.2
Welfare Transfers	2.4	0.0	0.5	3.6	1.9	35.2

TABLE C-3

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE
LOWER LIVING STANDARD FOR HOMEOWNERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	26.3	26.6	29.9	28.3	28.8	29.9
Shelter	17.4	18.1	13.7	15.1	15.7	18.4
Household Operations	16.3	20.3	15.6	10.7	9.6	15.2
Household Furnishings	3.4	3.5	4.1	4.0	4.2	2.7
Transportation	15.2	9.4	13.5	18.1	18.1	12.1
Clothing	5.4	4.4	3.9	7.6	8.7	8.4
Medical	7.5	11.0	12.2	6.6	5.4	5.7
Personal	1.7	1.6	1.7	1.2	1.1	1.0
Other	6.8	5.2	5.3	8.3	8.4	6.6
B. Income Sources						
Earnings	101.3	16.2	33.1	161.3	131.9	60.1
Non-Welfare Transfers	22.6	80.5	97.3	3.6	1.9	22.6
Welfare Transfers	1.4	0.0	0.6	2.7	2.0	25.3

TABLE C-4

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE PREVAILING FAMILY STANDARD FOR HOMEOWNERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	23.0	22.1	26.7	23.5	24.6	25.0
Shelter	16.9	19.0	15.2	18.1	16.8	16.9
Household Operations	13.9	16.7	12.1	9.2	7.6	12.9
Household Furnishings	3.9	4.2	4.6	4.7	5.1	4.4
Transportation	18.7	13.6	16.7	20.5	22.1	17.4
Clothing	6.5	5.4	5.1	7.6	8.6	8.7
Medical	6.6	9.8	11.6	6.1	5.0	5.6
Personal	1.5	1.9	1.9	1.2	1.0	1.3
Other	8.9	7.3	6.1	9.1	9.2	7.9
B. Income Sources						
Earnings	146.3	19.0	40.0	150.0	121.9	85.8
Non-Welfare Transfers	10.8	63.9	71.8	3.2	1.9	23.3
Welfare Transfers	0.0	1.9	0.8	0.8	2.2	5.4

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE
SOCIAL ABUNDANCE STANDARD FOR HOMEOWNERS

A. Expenditure Categories	Single Non-Aged	Elder Couple	Couple with 1-3 children
Food	21.0	23.8	21.2.
Shelter	18.2	14.9	17.5
Household Operations	11.8	10.7	8.0
Household Furnishings	4.0	4.1	5.2
Transportation	22.1	22.5	24.3
Clothing	6.6	5.8	7.7
Medical	5.3	9.1	5.3
Personal	1.5	1.8	1.1
Other	9.5	7.3	9.5
B. Income Sources			
Earnings	148.1	51.8	136.9
Non-Welfare Transfers	8.2	58.9	3.1
Welfare Transfers	1.5	0.9	1.0

TABLE C-6

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE
SOCIAL MINIMUM STANDARD FOR RENTERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	22.7	29.5	32.3	26.2	30.2	28.4
Shelter	33.7	33.6	24.5	22.2	17.3	32.9
Household Operations	8.4	10.6	12.3	10.0	9.3	11.9
Household Furnishings	2.0	1.9	2.1	3.5	4.2	2.8
Transportation	11.8	5.2	8.1	5.2	16.3	5.6
Clothing	6.4	4.5	3.5	7.5	8.9	9.8
Medical	4.7	9.1	10.1	6.0	4.6	1.9
Personal	1.3	1.7	1.7	0.9	1.1	0.9
Other	9.0	3.8	5.5	8.5	8.2	5.9
B. Income Sources						
Earnings	113.2	10.6	28.8	135.8	108.0	31.2
Non-Welfare Transfers	17.0	82.1	94.1	3.3	1.5	1.6
welfare Transfers	10.4	4.6	7.2	6.4	7.8	52.4

TABLE C-7

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE LOWER LIVING STANDARD FOR RENTERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	21.1	27.4	30.6	24.0	28.1	26.5
Shelter	32.1	33.4	25.0	22.5	17.3	29.9
Household Operations	7.7	9.4	10.9	9.4	8.8	12.0
Household Furnishings	2.3	2.2	2.5	3.9	4.4	3.3
Transportation	14.3	6.8	9.2	17.0	18.1	8.7
Clothing	7.0	5.0	4.2	7.6	9.0	10.0
Medical	4.5	9.0	10.1	5.9	4.9	2.3
Personal	1.2	1.9	1.8	0.9	1.1	1.0
Other	9.9	4.8	5.7	8.8	8.3	6.4
B. Income Sources						
Earnings	122.9	12.4	32.0	132.6	107.4	48.9
Non-Welfare Transfers	12.0	74.6	82.9	3.0	1.8	2.7
Welfare Transfers	8.3	5.6	6.6	5.0	7.0	39.0

TABLE C-8

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE PREVAILING FAMILY STANDARD FOR RENTERS

A. Expenditure Categories	Single Non-Aged	Single Elder	Elder Couple	Couple with 1-3 children	Couple with 4+ children	Female head with children
Food	17.9	23.0	27.1	19.7	23.9	22.6
Shelter	28.7	33.0	26.3	23.2	17.3	24.1
Household Operations	6.4	7.2	8.2	8.2	7.9	12.1
Household Furnishings	2.9	2.7	3.2	4.6	4.8	4.3
Transportation	19.3	10.1	11.4	20.5	21.8	14.9
Clothing	8.1	6.0	5.5	7.8	9.2	10.4
Medical	4.1	8.8	10.1	5.7	5.5	3.2
Personal	1.0	2.1	1.9	0.9	1.1	1.2
Other	11.6	7.0	6.2	9.4	8.5	7.3
B. Income Sources						
Earnings	142.3	15.9	38.4	126.1	106.1	84.4
Non-Welfare Transfers	2.1	59.7	60.6	2.6	2.3	4.8
Welfare Transfers	4.1	7.4	5.5	2.3	5.3	12.2

TABLE C-9

EXPENDITURE CATEGORIES AND INCOME SOURCES AS PERCENTAGES OF TOTAL EXPENDITURE
SOCIAL ABUNDANCE STANDARD FOR RENTERS

A. Expenditure Categories	Single Non-Aged	Elder Couple	Couple with 1-3 children
Food	16.2	23.7	18.0
Shelter	25.7	25.5	19.2
Household Operations	5.8	8.1	7.6
Household Furnishings	3.1	3.0	5.1
Transportation	24.9	15.8	26.0
Clothing	8.3	6.5	8.1
Medical	3.5	8.7	5.4
Personal	0.9	1.9	0.9
Other	11.6	6.9	9.5
B. Income Sources			
Earnings	105.7	49.4	120.3
Non-Welfare Transfers	2.2	52.4	2.4
Welfare Transfers	3.3	3.7	1.1

NOTES TO CHAPTER I

1. "Market basket" is a convenient term for a list of specific goods and services and their amounts. A market basket can contain more than just food items; such diverse items as haircuts, car batteries, and rent payments can be included.

2. This measure, or some derivative of it, is often alternatively referred to as Orshansky, Office of Management and Budget, Social Security Administration, and Census measure.

3. The evolution of the official poverty line is chronicled in U.S. Department of Health, Education and Welfare (1976, pp. 5-7).

4. Administrative and legislative references abound in terms that target Federal programs to the "disadvantaged," "needy," "dependent," "economically disadvantaged," and "individuals whose income and resources are insufficient." See U.S. Department of Health, Education and Welfare (September 1976).

5. Other measures of income eligibility and concepts of need used in Federal programs include a single dollar threshold that is unchanged for family size (used as an eligibility criterion in the College Work-Study program authorized by the Higher Education Act of 1965, and in the allocation of funds under Title I of the Elementary and Secondary Education Act until 1974).

6. The term area as used here covers Standard Metropolitan Statistical Areas (SMSA's), Standard Consolidated Areas (SCA's), and non-metropolitan areas.

7. See U.S. Department of Labor (1969) for the actual quantities used in the family budget market baskets.

8. In the published intermediate budget estimates, shelter cost is 25 percent renter cost and 75 percent homeowner cost.

9. Contract rent is the monthly rent regardless of whether any furnishings, fuel and utilities, or services are included.

10. In operational terms the budget makers calculated elasticity for a group of items according to the following formula:

$$E = \frac{\log Q_i - \log Q_{i-1}}{\log Y_i - \log Y_{i-1}}$$

Where i = income interval i
Y_i = mean income for income interval i
Q_i = the number of items (or services) in a particular consumption group purchased on the average by income group i weighted by a fixed set of prices.

The income intervals used were \$3,000-\$3,999; \$4,000-\$4,999; \$5,000-\$5,999; \$6,000-\$7,499; \$7,500-\$9,999; \$10,000-\$14,999; \$15,000 and above. An example of a consumption group would be personal care services, which includes boy's and men's haircuts, women's and girl's haircuts, shampoos, etc.

11. This is a version of an Iso-prop index. A general description of the approach can be found in Watts (1967).

12. The actual mechanics of the estimation procedure are preser in U.S. Department of Labor (1968).

NOTES TO CHAPTER II

1. The Thrifty plan is an updated version of the Economy plan and serves the needs of the Food Stamp Program. In October 1975, the weekly costs of the Thrifty plan for a four-person family defined as closely as possible to our reference family were, respectively, $38.20, $46.90, $62.40 and $75.00.

2. In fact, the possibilities of producing different food cost plans are nearly limitless, since the specified nutritional requirements can be met at very low cost. A recent minimum-cost diet--defined as the lowest cost combination of available foods providing the required RDA for energy and an amount equal to or exceeding the RDA for each nutrient--computed for the four-person reference family of the BLS budgets, indicates a total cost per day for the family in 1975 of $2.07, or $14.49 per week (only 37.5 percent of the cost of the Thrifty food plan for that year). Palatability by prevailing standard is, of course, ignored in these calculations.

3. In the 1946-47 Workers' Budget, the procedure of taking the customary food habits of low income families and then reducing the quantities of some foods and increasing the quantities of others to achieve a nutritionally adequate diet at the same cost was specifically rejected on palatability grounds. Rather, the foods eaten by city families were arranged in a scale according to the quantities of calories and nutrients they provided. When so arranged, they formed a succession of diets which were increasingly satisfactory in the judgment of both consumers and nutritionists. Then, the quantities of food included

in the budget were determined at the point in this scale of diets where the consumption of calories and nutrients agreed most closely with the National Research Council's 1943 RDAs. "This method of deriving the food budget leads to a grouping of foods in the way that families with satisfactory diets actually buy them." (U.S. Department of Labor, Workers' Budgets in the United States: City Families and Single Persons, 1946 and 1947, BLS Bulletin no. 927)

4. U.S. Department of Labor (1959, p.45)

5. Strictly speaking, the data that we recommend as the basis for construction of living levels apply to spending units, which need not be either households or families in the technical sense of the terms. Most spending units exist as separate households and contain only one coresident family. The Family Budgets, as norms, have traditionally referred to and continue to refer to specified family types which, in addition, occupy their own household and constitute a single spending unit. All these terms will be used interchangeably.

NOTES TO CHAPTER III

1. For a discussion of this methodology, see Carlson (1974)

2. For a fuller discussion of the surveys, see Hoff (1979) and Jacobs (1979).

3. For a fuller discussion of this survey, see Yčas (1979).

4. This section summarizes a paper prepared for the Committee. For further details, see Dubnoff (1979).

5. These were pooled responses to the questions asked in three successive surveys: the 1969-70 Survey of Working Conditions, the 1972-73 Quality of Employment Survey, and the 1977 Quality of Employment Survey. The survey was based on national probability samples of persons 16 years and older who were working for pay 20 hours a week and residing in the coterminous United States. (See Quinn and Staines, 1979).

6. See Goedhart et al, 1977, and van Praag et al (forthcoming) for discussions of the method.

NOTES TO CHAPTER IV

1. The choice of the median for a specific household type as the base or "numeraire" level does not, it should be added, imply that half of all households will be above the standard and half below. That will be true for only the households in the given category. The schedule of equivalence scales that provides a translation of the level to "equivalent" levels for other household sizes or types will generally yield standards that diverge from this median. Because two-parent, two-child families are better off as a group than other groups in the population, most of the alternative household types will show more than half of their respective distributions below the equivalent standard. If we apply the equivalence scale recommended in section 3 of this chapter, for example, we find that 53.5% of the sample of persons in the 1972-73 survey reside in households below this standard. Alternative equivalence scales could change this proportion, of course, but the important point remains that choice of a median for a base group does not imply that 50% of all groups fall above and below the standard.

2. This history is chronicled in Ornati (1966).

3. For the Orshansky scales, see U.S. Department of Health, Education and Welfare (1976, p.10, Table 1).

4. As a theoretical proposition, there is not a sufficient basis in revealed preference theory for deducing income levels that yield equivalent satisfaction across various types of families. A principal obstacle lies in the endogeneity of family size and structure responding to differential tastes for children or larger households. In addition, the pro-

blem of aggregating individual utilities (including children's) so as to admit interhousehold comparisons has not really been faced in the utility-based approaches.

Notwithstanding the theoretical problems of a utility-based approach, however, one can explore other principles of equivalence that imply specific strictures about what is important to hold constant. The Iso-prop approach uses the notion that equal proportions spent on a given (usually inelastically demanded class) category of goods provides a useful equivalence class. The existing BLS scales are based on this notion and have been developed on the further assumption that food, which is the commodity group used, has an expenditure elasticity of around .5. A less restrictive version of this approach (allowing the elasticity to be freely estimated) was attempted and failed to yield differentials that were plausible. See the Technical Supplement to this report (under separate cover) for further discussion of the equivalence scale and possible empirically based solutions to it.

5. The current BLS family equivalence scales include separate values for several types of family with aged head. These values did not necessarily match with the level of the budget for the retired couple. Most of the attention has been placed on the retired couple's budget.

NOTES TO CHAPTER VI

1. Since data for some of the detailed categories are based on rather small cell sizes, some method of providing statistical smoothing of the raw tabulations becomes necessary. Several methods exist for doing this. One possibility is to construct a linear expenditure system framework discussed in the Technical Supplement to this report. The estimates shown and discussed in Chapter IX and the three Appendixes A through C use another possible method.

2. It should be noted that fringe benefits also constitute for many families a substantial addition to income. Not enough is known about how these fringes are distributed for us to recommend any adjustment at this time. Further research is very important and when it becomes available BLS should develop some way to take account of fringe benefits in the augmentation of the Standards to arrive at gross income.

3. Separate treatment should be given to Washington, D.C., New York City, and other major cities whose tax structures are substantially different from the state in which they are located.

4. In addition to the dollar amount of tax required for a given Standards-State combination, marginal rates would also be useful for many purposes--that is, a multiplier indicating how much total income would have to change to accommodate a given change in expenditures. Such a number is, of course, directly related to the combined applicable effective marginal tax rates, and can be calculated as a by-product of the basic amount.

5. In principle, we feel that all cash benefits provided by any level of government, for which working families of the kinds described are eligible on a universal basis, should be counted as reductions in the amounts of earnings necessary to support the expenditure levels of the Standards. Hence, if Food Stamps are converted to cash (as has been repeatedly suggested), they should be included as part of the tax calculation for the families that are presumptively eligible as should any other cash entitlement program that may be introduced.

6. We propose that the allowance for occupational expenses be disregarded here.

7. It should be noted that the same percentage is appropriate in the two-earner case also, with the premium being divided appropriately between the two. In any case, families with more than one earner have almost certain insurance in any case against complete interruption of the family income flow.

8. See Popkin (1980) for the justification of this allowance. The amount of the adjustment we recommend is based on the share of total earnings provided by the second earner. On average, in two-earner families, the second earner supplies about one-fourth of the gross income and therefore 20% of that quarter is the appropriate adjustment to allow for the additional expenses. Hence, for any given standard, a two-earner household will need an after-tax income that is higher by about 5%. (If the second earner in a particular case is known to earn a different fraction, this average multiplier should be adjusted accordingly. A simple table could be constructed to show the factors or dollar amounts by which the various expenditure budgets must be modified. It should be remembered that this modification has to be further increased by the appropriate state-determined multiplier

ecure the appropriate before-tax or gross income adjustment.

The child care credit in the Internal Revenue Service should, of ourse, be taken into account in this adjustment. For a household in which both parents are employed and there are two or more children, 20% of actual child care expenses up to a maximum child care cost of $4,000 is allowed as a credit against the income of the lesser earner. Therefore, expenses should be augmented by only 80% of the cost of the care up to $4,000 a year. (For one child, the maximum allowable child care cost is $2,000).

NOTES TO CHAPTER IX

1. Non-Welfare Transfers include Social Security, pension and other benefits that do not depend on current income or means tests.

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DISSENTING VIEWS OF ANNE DRAPER ON THE REPORT BY THE EXPERT COMMITTEE ON FAMILY BUDGET REVISIONS

My principal objection to this report is its abandonment of quantity budgets as the basis for determining "what it costs a worker's family to live."

The basis for budgets produced by the Bureau of Labor Statistics has always been: "What does a worker need to buy?" and "How much does it cost?" The quantities of particular goods and services needed are established and their prices determined to arrive at total cost.

The original Congressional directive of 1945 to the BLS, which generated the present series of budgets asked the Bureau to "find out what it costs a worker's family to live in the large cities of the United States." And the most recent directive, contained in the CETA legislation of 1973, refers to the maintenance of household budget data to reflect the "differences of household living costs in regions and localities, both urban and rural."

The particular expertise of the Bureau in the field of family living costs arises out of its specialized functions in the pricing of goods and services for the Consumer Price Index and its conduct of associated Consumer Expenditure Surveys. This expertise is an important reason why the Congress has looked to the Bureau for costing out what workers need to buy to maintain or achieve specified living standards.

Rather than developing improved methodologies for the selection of goods and services to be priced, the present Committee has chosen to select particular levels of total expenditures, without regard to the specifics of what they will buy or whether the actual quantities of goods and services available within the expenditure totals are consonant with the standards of living which the Committee specifies and intends by the descriptions attached to them.

It is pertinent to recall the interpretation given to Congressional intent by the first Technical Advisory Committee for the present series of budgets:

> "What the Congress desired, as the Committee interpreted it, was the cost at current prices in large cities of family living which meet American standards of what is required. The budget should therefore represent the necessary minimum with respect to items included and their quantities as determined by prevailing standards of what is needed for health, efficiency, nurture of children, social participation, and the maintenance of self-respect and the respect of others."[1/]

There has been no indication over the ensuing 35 year span that Congress has been using the BLS budgets that this interpretation was in error.

That Committee went on to recite in particular that the recommended budget "is not an attempt to reproduce the average consumption pattern of all or a chosen group of families....The items in such a budget would be statistical facts, varying with the total national income and its distribution. The budget the committee recommends might under certain circumstances be near or above such an 'average' budget and under other circumstances far below, although over time they would be

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1/ Bureau of Labor Statistics, Bulletin 927, p. 6.

expected to move together."

In effect what the present Committee adopts is what the first Committee rejected.

A. Replacing Cost Totals With Expenditure Totals The Prevailing Family Standard

In deciding that median consumption for a four person family defines the requirements for maintaining an adequate standard of living in line with prevailing life styles, the Committee makes a selection that has no real basis other than the fact that it is the "middle." Much of the confidence with which the selection is put forward actually rests on the evidence supplied by the existing Intermediate Budget which it replaces. And the present Budget does in fact attempt to spell out the necessary costs of a "modest but adequate standard of living."

The Committee observes that historically the present Intermediate Budget has fallen "within the middle range of family incomes." It also notes that important components of consumption costs in this Budget are ultimately drawn from costs of families in the middle of the income distribution, or reflect the middle of a price distribution, or are otherwise based on average usage data of some variety.

These are generalizations which in my view do not justify the substitution of a total dollar expenditure figure at a selected point on the consumption scale for the total cost of a priced out list of necessary goods and services that make up a budget. Costs, not expenditures, are what must be

determined.

(1) Dollar expenditure totals tell us nothing about what is bought, how much, what it costs, or whether it is "enough" in particular categories to supply what is needed.

(2) Dollar totals at median consumption will not inevitably coincide with the total addition of dollar costs derived from independent estimates of average or necessary usage for each consumption category. The present Budgets draw on usage data well beyond the confines of the Consumer Expenditure Survey to arrive at realistic estimates of costs geared to the particular activity level of the Budget family and the functions it is engaged in. Costs are not a "mirror image" of expenditures shown by the Consumer Expenditure Survey alone.

(3) Preselected expenditure totals are incompatible with the recognition of specific adequacy standards in the Budget.

(a) "Scientific" standards.

The Committee approach necessarily disregards standards of adequacy that have been worked out for shelter and food as well as standards that might be worked out in the future for other categories, such as medical care. Levels of "actual" expenditure for these components at various consumption levels may be tested against the cost of these standards (as suggested in the last chapter of the Report), but this is not the same as including them as cost components of the Budget itself. Indeed the denomination of a pre-selected total expenditure amount precludes

recognition of the cost of particular standards as part and parcel of the overall Budget amount needed. The cost of a nutritionally adequate diet, based on customary food choices, may be more or less than what is actually spent and the cost of adequate housing at average prices may similarly depart from actual expenditures. A problem is then created of how to fit remaining expenditures into the pre-established total. The Committee has been at some pains to minimize the usefulness of "scientific" adequacy standards as Budget ingredients. I cannot agree with this with respect to existing food and shelter standards nor do I believe that the use of additional standards, when and if developed, should be automatically foreclosed.

(b) Other necessary costs.

For other categories in the Budget, in which there are no recognized or accepted standards to be priced, the Committee strikes down the use of the "quantity-income-elasticity" technique as a method of arriving at a "necessary minimum" for quantities needed by a family at prevailing living standards. I do not question the conclusion that QIE proved faulty in actual practice, difficult to interpret and otherwise open to question. I am not convinced however that the same idea could not be captured by the alternative use of more sophisticated, modern statistical techniques (on which I am no authority at all) if standards were not automatically being ruled out by the adoption of predetermined expenditure levels. In any event, methodologies other than QIE were increasingly

substituted for deriving necessary costs in the present budget, and I would not agree that they were overly judgmental or discretionary in character.

The Lower Living Standard

The Committee's selection of a "Lower Living Standard" based on two-thirds of median consumption, likewise draws support from previously calculated Budget levels -- in this case the present "Lower Budget." Additionally it draws upon Gallup poll opinion data on "how much it takes to get along." (In a sense, the Gallup data serves also to validate the results reached by the "budget makers" in the construction of the present Lower Budget.)

The Lower Budget, as currently constructed, is essentially a specification of lower cost alternatives for the goods, services and manner of living contained in the Intermediate budget, such as an older car, rental housing only, more use of public transportation, etc. Adequacy standards for food and housing are costed at lower price levels (with the Low Cost food plan substituted for the Moderate), but medical care requirements are kept the same. It is a "scaling down" that is realistic and concrete and can well be characterized as "minimum adequate" -- the description originally intended for the particular Budget level.[2/]

[2/] Bureau of Labor Statistics, Bulletin 1570-1, p. vii.

B. Addition of "Social Minimum Standard" (Poverty Level)

The selection of 50 percent of median consumption to represent a "Social Minimum Standard" has no basis other than being in the general ballpark of other estimates for a "poverty line."

The present official poverty line for 1979, as prepared by the Census, is estimated at $7410 for a nonfarm family of four. Since poverty line estimates are based on after-tax income, the comparable figure for the 1979 "Social Minimum" would be $8,427 ($8,064 for consumption plus 4.5 percent for "other items") -- about 13 percent higher. If, however, the official poverty line were to be updated on the basis of more recent data on food consumption and with respect to the portion of family income spent on food, the 1979 poverty line would be $9,018, a figure about 7 percent higher than the $8,427 "Social Minimum."[3/]

I have the most serious reservations about carving out a new substandard living level as part of the BLS series of worker budgets. While one might be grateful for the somewhat more generous definition of poverty than is afforded by the present outdated Census measure now in use, it is a regression to "relief" level concepts rejected by the Congress as a basis for Budget derivations in the original charge to BLS in 1945.

Traditionally the "poverty line," as we have known it, is a measure of inadequacy -- a sum so low as to be unquestionably deficient for meeting essential needs. The Committee's figures indicate that less than 7 percent of four person families were

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3/ Fendler and Orshansky. "Imporving the Poverty Definition," October 1979. The 1977 figure in this article is updated to 1979 by the usual application of the Consumer Price Index.

below this level at the time of the 1972-73 Consumer Expenditure Survey.

C. Relative Standards

The postulate that adequacy at prevailing levels of living is always at median consumption and that other standards remain in fixed percentage relationships to the median is inherently an insupportable assumption. In a very poor society, for example, or even in our own at different historical periods, median consumption may approach the minimum of needed consumption. At other times, median consumption may be well above necessary consumption.

The Committee's proposal for maintaining fixed percentage relationships between the living standards it enunciates and for updating them in accordance with changes in total consumption may have its attractions so long as real living levels are rising, as has been the case during most of the post World War II era. In particular it has long been a concern of many thinkers in the poverty field that the official poverty line as presently computed moves upward only in accordance with price index increases. In an increasingly affluent society, those at the bottom are, under such a formula, doomed never to share in this increasing affluence. The proposal has frequently been put forward that the official Census poverty line simply be set at 50 percent of median income. The Committee's "Social Minimum" is analagous in concept.

But the Committee's formula is troublesome to contemplate in an era of falling real living levels. Although a "ratchet"

mechanism has been devised to protect the real 1972-73 median consumption line (or subsequent higher levels) against erosion from price increases, inflation is not the only factor affecting overall consumption levels. Widespread unemployment also cuts down overall incomes and consumption even when little or no price inflation occurs. A drop in consumption caused by unemployment does not reduce a family's necessary living costs, but the Committee's consumption-based standards would automatically fall.

The present BLS budgets, over the short term, are repriced for price change only and their costs are not dependent on changes in consumption levels. General shifts in living standards are taken into account over longer periods and are incorporated into budget revisions at the times when general revisions of the price index are made.

The separate problem of the "relative poverty line" could be addressed within the context of its own formula, namely by revising it to take account of the reduced proportion of food expense in relation to after-tax income according to the most recent Department of Agriculture surveys. This would update it to reflect improved living standards of society as a whole.

D. Interarea Differentials

The Committee does not provide a useful set of recommendations for dealing with interarea differences in living costs.

The first recommendation relates solely to an abstract interarea price index with fixed national weights. It would be analagous in

coverage to what is now produced for the monthly Consumer Price Indexes for selected metropolitan areas, regional averages and city size averages.

Such an index would allow for no differences in area weights to reflect differences in local requirements or practice with respect to fuel usage (including type of fuel), clothing, transporation, type of housing, property and sales taxes, food preferences, etc. It does not seem realistic even for the principal use envisaged for it -- namely the interest of individuals who are moving (or being moved) from one place to another. I believe the development of such an index would be a pointless exercise.

An interarea city price index, even if developed, would apparently have no feed-in to the Committee's second recommendation (of an interim nature) dealing with differences in "living costs." Differences in "living costs" would be recognized only with respect to home fuel usage and only on a state basis.

A "climate adjustment" for home fuel use would be calculated for each state and applied to the nationally derived expenditure levels (presumably moving the total either upward or downward in each state). No other expenditure variation would be reflected -- even for price differences. The final "standards," inclusive of income taxes, would be calculated for each state and would reflect differing rates of state tax and average local area payroll taxes within each state.

City budgets, as such, would be abolished, although separate tax tables would be made available for "Washington, D.C., New York City and other major cities whose tax structures are substantially different from the state in which they are located." A "city

budget" would simply be the same as for the state in which it is located (except for the above noted cities for which differential tax structures are identified).

I cannot really make much sense out of the approach the Committee has adopted -- city price differences that are calculated without reference to differences in local area usage requirements, and "living cost" differences by state that do not take into account either local area price differences or usage differences other than for home fuel use.

The present quantity-based Budgets include within themselves the specific quantities and qualities on an itemized list that need to be priced in different geographical areas and make explicit allowances for local usage. It is possible to quarrel with the particular types of variations allowed for (and I myself believe that regional food preference differences are probably exaggerated in the present budgets), but at least the calculation is not dependent upon generating some kind of separate index. At present, interarea "living cost" indexes emerge from the computation of the budgets themselves. These indexes allow also for different outcomes at each respective budget level, depending on the variations in the components of each budget. Generally, for example, the Lower Budget has shown less interarea variation than the higher ones.

Abandonment of quantity budgets, would, of course, <u>force</u> the construction of separate indexes and allowances in order to reflect, in a not very satisfactory manner, how the budgets might vary in different areas.

E. Derivation of Budgets for Additional Family Types

I have no particular quarrel with the decision to adopt (with some changes) the "new Orshansky scales" for families of different sizes as a replacement for the BLS equivalence scales. But as the Committee itself recognizes, this entails no real advance over existing methodologies (all of which are tied to food consumption).

I think, however, that many users will quarrel with the abandonment of the present quantity-based Retired Couple's Budgets in favor of general equivalence scales.

"Detailed budgets" for additional family types, under the Committee's recommendations, would merely consist of showing on a percentage basis how the shares of dollar expenditure totals (elicited from the family equivalence scales) break down into major categories of consumption. These shares reflect what "actual" consumption would be (as calculated from regression equations incorporating changes in the shares at successively higher levels of total consumption for each family type).

The recommendations for a budget that includes a "working wife" are essentially ad hoc. It is a particular example of a situation in which a quantity cost based approach would be superior. A quantity-based approach would develop specific assumptions, based on average patterns of labor force participation of working wives, from which necessary work travel requirements could be estimated and priced, allowance made for necessary meals away from home, additional or different clothing requirements, and use of child care arrangements (including the

cost of placement, at average prices, in facilities meeting standards recommended or required by public authorities).

CONSLUSION

As stated in the beginning, my principal quarrel with the Committee's recommendations is the abandonment of quantity based budgets. Many users have valued the budgets on account of the detailed lists of what they include. It is also my belief that Congressional intent is directed toward calculated costs of a necessary nature and not toward overall expenditure levels, no matter what labels are attached to them.

Substitution of expenditure levels for cost totals has many ramifications in terms of taking account of adequacy standards, updating the budgets, calculating interarea differentials, and deriving detailed budget requirements for other family types. I believe the outcomes are likely to be less satisfactory than if approached from within the framework of quantity budgets.

I take particular exception to the addition of a "poverty standard" to the BLS budget series.

Finally, however, I do want to express support for the Committee's recommendations on surveying public views on living standard levels. While such an undertaking has pitfalls and cannot substitute for systematic budget calculations from customary statistical data, it would serve as a valuable framework for helping to resolve a number of questions that have not been satisfactorily answered from existing data and theory, particularly with respect to family equivalence scales and geographical differences in perceptions of adequacy.

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