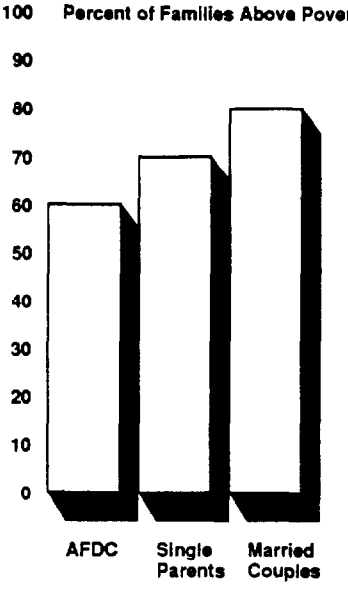
Figure 3.2: Among Three Welfare Groups, AFDC Families Exceed Poverty Thresholds Least Often, April 1984[a]



Note: Single-parent and married couple households receive welfare--but neither AFDC nor SSI. They contain from 2 to 4 members. Figures reflect national data. Inkind benefits are valued using market technique.

[a]Single-parent and married-couple families received welfare, but not AFDC or SSI. All families contain two to four members. Figures reflect national data. In-kind benefits are at market value.

How AFDC Family Incomes Compare With Incomes of Single-Parent Families Not Receiving Welfare

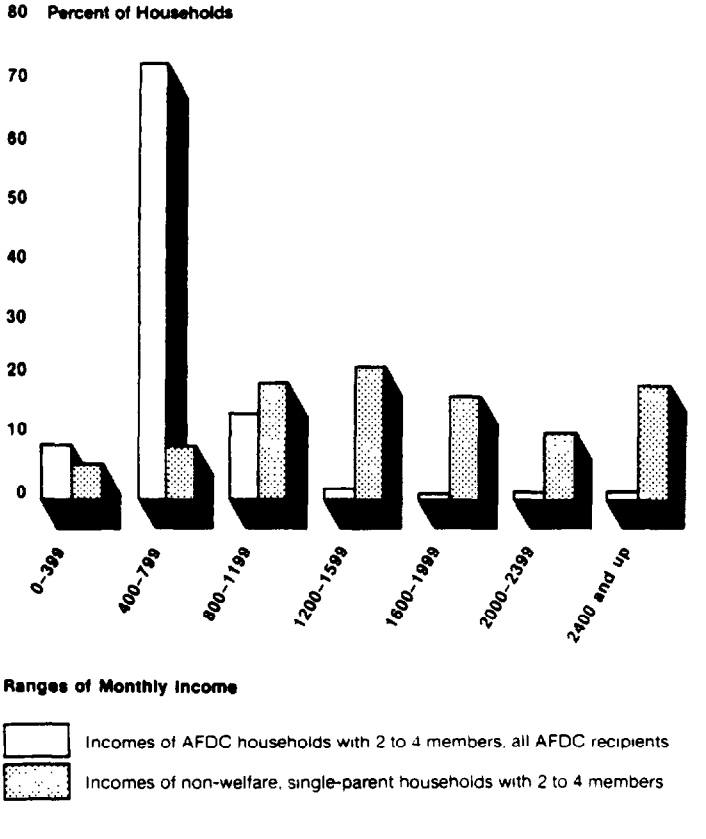
Studies show that single-parent families, as a group, have considerably lower incomes than married-couple and elderly families. To make our comparison, we used national data and selected single-parent families with three or fewer children who were not receiving any form of welfare. There were about 3.1 million of these families in April 1984.[4]

The average monthly pretax income, at market value, of the nonwelfare families was $1,709 (not including a value for employer-provided benefits, such as health care or pensions). If Medicaid is not included in AFDC family incomes, their average monthly income is $667, or $1,042 less than nonwelfare families. Fifty percent of the nonwelfare families had average monthly incomes between $1,039 and $2,137. Further, nonwelfare families derived most of their income from earnings, but also

[4]The Census Bureau's Survey of Income and Program Participation (SIPP) contains information on 15 of the largest welfare programs.

received income from such sources as interest and Social Security payments. We did not reduce incomes for taxes, which can be significant, especially for non-AFDC families. AFDC families with earnings would pay Social Security tax and may also pay some income tax, but welfare benefits are tax free. Figure 3.3 shows the respective incomes of AFDC and nonwelfare families.

Figure 3.3: Nationally, Most AFDC Families Had Significantly Lower Incomes Than Did Their Nonwelfare Counterparts, April 1984[a,b]



[a]Amounts are determined from 300 AFDC families and 644 nonwelfare families with two, three, and four family members.

[b]We did not include the value of employer or union-paid health insurance in the incomes of nonwelfare families. Therefore, we did not include a value for Medicaid in the incomes of AFDC families. In-kind benefits are at market value.

Eleven percent of the nonwelfare families had pretax incomes, not including employer-provided medical and pension benefits, that were below the poverty line, compared with 74 percent of AFDC families,

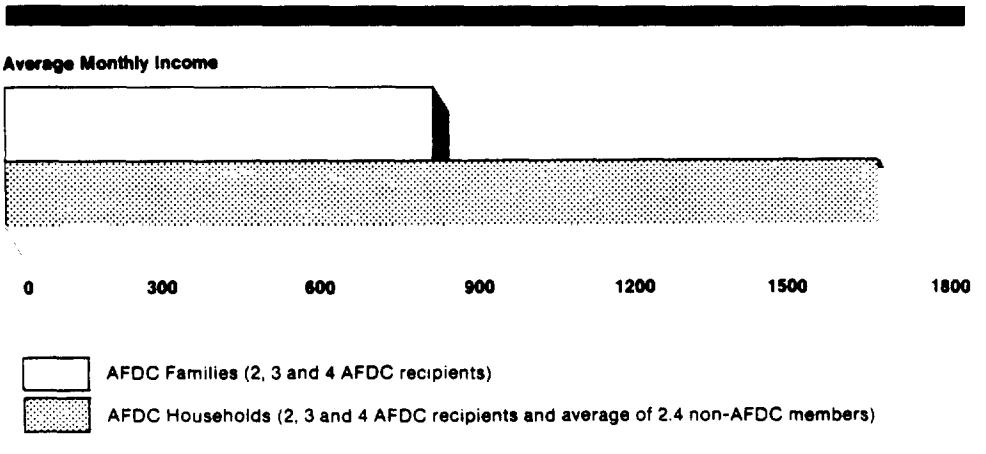
whose incomes were also computed without including Medicaid. Some nonwelfare families with low incomes may be "income-eligible" for welfare assistance, but do not participate for reasons that could include an inability to meet asset limitations, lack of knowledge about program eligibility, and the stigma attached to welfare.

Limited Information on Incomes of AFDC Families Living With Others

Our analysis of AFDC families living with persons not receiving AFDC and their income was limited by the absence of usable data. County welfare records often lacked income information on non-AFDC members' incomes. These records also lacked adequate identifying information such as Social Security numbers, which are needed to trace participation in other assistance programs. We were unable to accurately determine total income for households containing non-AFDC members at the county level. Therefore, for the analyses and comparisons in this section, we used only national data.

Nationally, 40 percent of sampled households with two to four AFDC recipients included persons not receiving AFDC. Such households had an average of 2.4 members in addition to the members who received AFDC. Figure 3.4 shows that the average monthly pretax income of households with 2, 3, and 4 AFDC recipients and an average of 2.4 non-AFDC members was $1,674, or $855 higher than AFDC families with 2, 3, and 4 recipients living alone.

Figure 3.4: Households With AFDC and Non-AFDC Members Have Higher Average Incomes Than AFDC Families Living Alone, National Data, April 1984[a]



[a]Market technique used to value in-kind benefits.

Besides average incomes being higher, households with AFDC and non-AFDC members have incomes above the poverty line more often than do AFDC families living alone, as table 3.5 shows.

Table 3.5: Comparison of Incomes Exceeding Poverty Thresholds Nationally, April 1984

	Percent	
Income definition	199 households with AFDC and non-AFDC members	300 AFDC families living alone
Cash Only	55	8
Cash plus in-kind benefits at recipient values	62	27
Cash plus in-kind benefits at market values	71	60

The average income of households with AFDC and non-AFDC members includes noticeably less in-kind income and more cash—primarily from earnings—than does the average income of AFDC families living alone, as table 3.6 shows.

Table 3.6: Income Composition of Households With AFDC and Non-AFDC Members and AFDC Families Living Alone, National Data, April 1984

	Average percent of income—market value[a]	
Income type	199 households with AFDC and non-AFDC members	300 AFDC families living alone
AFDC	20	4
Food stamps	8	1
Medicaid	13	1
Earnings	38	
Other	21	1

[a]Percentages of individual family income by sources were calculated and then averaged for all families

Our limited analysis of the income differences between AFDC families living alone and households with AFDC and non-AFDC members indicates that further study is needed to determine the relative income status of AFDC recipients in the two household types. Remaining unanswered is the question: How much income is available to support AFDC recipients? Answers to this and other questions can depend on the AFDC recipients' relationship to the non-AFDC household members. In response to Senator Roth's request dated March 31, 1987, we will provide further information on the incomes and characteristics of AFDC households in a later report.

Conclusions and Federal Welfare Policy Implications

AFDC families living alone receive income amounts from numerous welfare and nonwelfare sources. Most of their income is derived from federal/state welfare programs; on average almost half in the form of in-kind benefits. Thus, their incomes are affected by a multiplicity of federal and state policies concerning program eligibility, benefit levels and availability, and program interactions. Also, individual AFDC family incomes are affected by where they live, receipt of housing assistance, whether they have earnings, and family size.

Because individual state welfare policies and practices can play a significant role with respect to family incomes, the current extent of state discretion in setting AFDC payment levels, eligibility criteria, and so on is a necessary focus for welfare reform policy deliberations. To some extent, multiprogram participation and program interactions reduce AFDC payment variations among the states. AFDC payments are counted as income in determining the benefit amounts of such other programs as Food Stamp and Section 8 Housing. Thus, as AFDC payments become larger, benefits from the other programs become smaller. It is important, therefore, that in establishing benefit levels in a given welfare program, interactions with other program benefits are considered.

While earnings significantly affect the income of AFDC families with an employed member, few had earnings, which indicates the possible need for additional emphasis on training and work requirements.

AFDC family incomes increased with family size largely because their income came primarily from welfare benefits, which generally increase as the number of eligible family members increases.

National and county data indicate that some in-kind benefits may not be equitably distributed. Housing assistance, for example, can significantly affect an AFDC family's total income, but such assistance is not equally available in all states or even within some states. In effect some families, precluded from receiving such assistance, must pay for their housing at the market rate. Thus, families qualifying for assistance in similar circumstances are often treated differently. Attempts to address this apparent inequity might consider adjusting the AFDC grants for families not receiving housing assistance and/or adjusting the grants for those already receiving such assistance.

The number and percentage of AFDC families whose incomes exceed the poverty line are largely dependent on the types of in-kind benefits that are counted as income and the methods used to value them. Few AFDC

family incomes exceed the poverty line when their cash incomes alone are counted, but significantly more do when their in-kind assistance is counted—which serves to highlight the importance of methods used to value in-kind assistance in calculating individual and aggregate welfare income.

Although in-kind benefits comprise about 70 percent of federal welfare expenditures, there is disagreement about how such benefits should be valued for the purpose of determining incomes, and whether such benefits as Medicaid should be valued at all. At the request of the Congress, the Census Bureau is seeking to resolve a number of valuation issues, which, in our view, could significantly affect policymakers' perceptions about AFDC family incomes. However, until agreements are reached on these issues, uncertainties will persist about the relative poverty status of welfare families.

Although comparing welfare family incomes to the official poverty line is a widely accepted practice, the poverty line has received extensive criticism as being obsolete and nonreflective of geographic and family differences other than family size. While the poverty line remains the only commonly used national standard for measuring basic living needs income, the use of this standard continues to complicate efforts by the Congress and others to determine whether welfare benefits are adequa and properly targeted to the various poverty groups.

AFDC family incomes are generally less than comparably sized families receiving other welfare, such as food stamps but not AFDC, and those receiving no welfare. Thus, a higher percentage of AFDC families have incomes below the poverty line than do the other groups. A large percentage of AFDC family incomes are composed of in-kind assistance. Thus, in addition to being less fungible than those incomes consisting mostly of cash, AFDC family incomes are more susceptible to valuation problems.

Both national and county estimates of family incomes may be affected by program participation and income misreporting on Census Bureau surveys and to welfare agencies. Our estimates are subject to addition variations because of in-kind benefit valuation problems, and because we used monthly data that does not reflect annual labor force and wel fare program participation effects.

Bureau of the Census Description of Noncash Valuation Techniques

This appendix contains descriptions of the procedures used to develop and assign values to each of the five types of noncash benefits valued in this study. These benefits are (1) food stamps, (2) school lunches, (3) public or other subsidized rental housing, (4) Medicaid, and (5) Medicare. The first section describes procedures for the market value approach; the second, procedures for the recipient or cash equivalent approach; and the third, procedures for the poverty budget share approach.

MARKET VALUE

The market value concept values the noncash benefit at the cost of the specific goods or services in the private market place. The procedures used to assign market values to noncash benefits require the identification of analogous goods or services in the private market place and estimation of the cost of the goods or services. Because it is sometimes difficult to find and value goods or services in the private market place that are precisely the same as those provided by the noncash benefit program, various assumptions and compromises were made in the estimation process. Details of the market value estimation process are contained in the following subsections for each noncash benefit.

Food stamps. Valuing food stamps was the simplest and most straightforward of the market value procedures. The market value assigned was the annual face value as reported in the survey; i.e., the face value is equal to the purchasing power of the food stamps in the market place.

School lunches. All children eating lunches prepared in schools that participate in the National School Lunch Program receive a subsidy or benefit because the price paid by the student is less than the cost of the meal. The value of the benefit varies depending on how much the student pays for the lunch. In the case of school lunches, it is difficult to identify the analogous good in the private market place since such a large proportion of schools participate in the program. It was decided, therefore, to assign market values that were equal to the amount of money and value of commodities contributed by the Department of Agriculture and State governments (excluding contributions directly from student payments for lunches).

Data from the Department of Agriculture allowed the calculation of the amount of contributions per meal served. These contributions differ for each of the three categories of lunches: (1) paid (full price), (2) reduced price, and (3) free. Table B-1 shows the total contributions per meal by type of lunch for 1979 to 1984. These figures were multiplied by 167 days to obtain an annual estimate per child. This assumes an average school year of 180 days and 93 percent attendance. These amounts were multiplied by the number of children in each family reporting that they usually ate a hot lunch offered at school.

Public and other subsidized rental housing. The noncash benefit for public or other subsidized rental housing was defined as the difference between the market rent of the housing unit and the subsidized or lower rent paid by the participant. The market value of the benefit is equal to this difference. Data on the market rent of public housing units are not readily available. Since these data are the key to estimating market values, procedures were developed to estimate market rents.

The market rent estimation procedure was based on survey data from the 1979 and 1981 Annual Housing Survey (AHS) national samples conducted by the Bureau of the Census. The AHS was chosen for several reasons. First, it collected rela-

Table B-1. Contributions per Meal and Annual Market Value Subsidies for National School Lunch Program, by Cost Status of Lunch: 1979-84

(Figures in 1984 dollars)

Cost status of lunch	1979		1980		1981		1982		1983		1984	
	Per meal	Annual	Per meal	Annual	Per meal	Annual	Per meal	Annual	Per meal	Annual	Per meal	Annual
Full price.....	.44	74.07	.43	71.56	.37	61.02	.25	41.33	.25	41.28	.25	41.75
Reduced price..	1.20	200.70	1.20	199.95	1.13	188.79	.90	150.94	.93	154.82	.95	158.65
Free.....	1.49	248.49	1.45	242.04	1.36	226.93	1.33	222.82	1.34	223.62	1.35	225.45

Note: For the 1984 per meal cost status of lunch shown in the reproduced table B-1, we deducted the 25-cent subsidy that all children receive from the reduced price and free lunch subsidy amounts to derive the portion of the subsidies that is based on financial need.

tively current data on monthly amounts paid for rent and utilities. Second, it allowed identification of public or other subsidized housing units. Third, the AHS had a relatively large sample size, about 60,000 households. Finally, the survey can provide data needed for future updates.

The first step in the market rent estimation procedure was development of a method to "statistically" match public and private market rental units with similar housing characteristics. In this process, each sample public or subsidized housing unit was matched to two nonsubsidized units with similar housing unit characteristics. The average market rent for two matching private market units was assigned as the market rent for each matching public or other subsidized rental unit. The average market rent for two nonsubsidized units was assigned rather than a rental amount from only one unit in order to help stabilize the estimated market rents.

Once the assignment of a market rent had been made to each public or subsidized rental housing unit on the 1979 and 1981 AHS sample files, tabulations of average market rents and average subsidized rents paid were made. An examination of these data indicated that the data for both years should be combined in order to provide larger sample sizes and thus more stable estimates for the market and subsidized rents.

The tabulation and combination of the market rent and subsidized rent data for 1979 and 1981 were followed by the calculation of average market values for the rent subsidy. These averages were simply the difference between the average simulated market rents and the average reported subsidized rents paid. Tables B-2, B-3, and B-4 show the average market rents, average subsidized rents, and average market value subsidies used in the assignment of market values for public housing. The values in these tables are averages derived by combining the 1979 and 1981 data. The averages were replaced by rent-to-income ratios for purposes of making the actual calculation.

Market value estimates for public housing described here differ somewhat from those used in the original Technical Paper 50 work because slightly different procedures were used. The original work covering 1979 used data from the 1979 AHS; however, valuation techniques based on hedonic regression procedures yielded lower estimates of market rent for the public housing units and thus lower market values for the noncash housing benefit.

The rent-to-income ratios used in the assignment of the market value subsidy were held constant for all years. This meant that the market value subsidy for public housing was fixed as a function of income level based on the combined 1979 and 1981 data. This procedure yielded market value subsidies that changed only slightly over the period.

Table B-2. Mean Annual Market Rent for Public or Other Subsidized Housing Units, by Total Household Money Income and Size of Family Unit

(Figures in dollars. Combined data from the 1979 and 1981 Annual Housing Survey)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	2,675	3,211	3,597	2,884	3,841	2,388	2,344	2,648
Two persons or more	3,049	3,208	3,158	3,728	3,472	3,604	3,627	5,068
Householder under 65 years in—								
Married-couple family households:								
Two persons	2,894	3,203	3,583	3,432	3,995	4,009	3,822	3,924
Three persons	3,316	3,268	3,539	3,612	3,723	4,364	4,355	4,570
Four persons	3,450	3,470	3,680	4,047	3,858	3,623	4,313	3,922
Five persons	4,264	3,533	3,962	3,590	4,155	4,194	4,578	3,642
Six persons	3,924	3,699	4,004	3,388	3,001	4,313	3,764	5,129
Seven persons or more	4,025	3,009	4,720	3,110	4,809	3,685	4,290	5,880
Other family households:								
Two persons	3,185	3,500	3,297	3,831	3,831	4,424	4,418	4,284
Three persons	3,305	3,478	4,190	3,882	3,528	3,726	3,534	4,068
Four persons	3,386	3,450	3,691	4,319	4,527	4,192	6,994	4,498
Five persons	3,325	3,481	3,321	3,933	3,388	4,908	4,481	4,020
Six persons	3,111	3,298	4,381	4,122	5,658	4,826	3,389	3,414
Seven persons or more	3,341	3,712	4,980	3,994	5,278	5,748	4,294	2,646
Nonfamily households:								
One person	2,678	3,073	3,312	3,323	3,262	3,011	6,468	4,824
Two persons	3,489	4,378	4,183	4,440	3,498	3,407	9,120	3,490
Three persons or more	5,670	5,082	5,005	4,624	3,648	4,122	2,322	3,594

Table B-3. Mean Annual Subsidized Rent for Public or Other Subsidized Housing Units, by Total Household Money Income and Size of Family Unit

(Figures in dollars. Combined data from the 1979 and 1981 Annual Housing Surveys)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	1,058	1,541	2,217	1,942	3,145	1,632	1,631	1,885
Two persons or more	1,290	1,518	2,066	2,172	2,102	2,232	3,032	3,171
Householder under 65 years in--								
Married-couple family households:								
Two persons	1,454	1,990	2,249	2,428	2,285	3,013	2,953	3,092
Three persons	2,111	1,933	2,433	2,549	2,869	2,984	3,333	2,928
Four persons	1,794	1,849	2,256	2,481	2,451	2,976	3,607	2,799
Five persons	1,945	1,859	2,081	2,243	2,469	2,642	3,358	2,538
Six persons	1,696	1,852	2,203	2,335	1,947	3,224	2,423	3,792
Seven persons or more	1,492	1,652	1,959	1,976	3,691	2,242	2,493	3,553
Other family households:								
Two persons	1,482	1,552	2,119	2,688	2,749	2,912	2,933	3,332
Three persons	1,344	1,863	2,150	2,265	2,394	3,157	2,331	2,297
Four persons	1,434	1,976	2,055	3,141	3,703	2,289	2,493	1,845
Five persons	1,352	1,903	1,869	2,832	1,728	2,400	2,756	3,494
Six persons	1,387	1,494	1,541	1,908	3,324	2,665	1,591	2,375
Seven persons or more	1,264	1,763	2,007	1,595	1,746	2,616	2,006	1,380
Nonfamily households:								
One person	1,232	1,618	2,237	2,286	2,620	2,219	5,784	3,142
Two persons	1,585	2,900	2,590	2,424	2,304	2,482	3,204	3,011
Three persons or more	2,820	1,464	1,794	2,239	2,808	3,480	708	2,640

Table B-4. Mean Annual Market Value of Housing Subsidies for Public or Other Subsidized Housing Units, by Total Household Money Income and Size of Family Unit

(Figures in dollars. Combined data from the 1979 and 1981 Annual Housing Surveys)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	1,617	1,670	1,380	942	696	756	713	763
Two persons or more	1,760	1,690	1,092	1,556	1,370	1,371	595	1,897
Householder under 65 years in--								
Married-couple family households:								
Two persons	1,440	1,213	1,334	1,003	1,711	996	869	832
Three persons	1,205	1,335	1,106	1,063	853	1,380	1,023	1,642
Four persons	1,656	1,621	1,424	1,567	1,406	647	707	1,123
Five persons	2,318	1,675	1,881	1,347	1,686	1,553	1,220	1,105
Six persons	2,228	1,847	1,800	1,053	1,054	1,089	1,341	1,337
Seven persons or more	2,532	1,357	2,761	1,134	1,117	1,444	1,796	2,327
Other family households:								
Two persons	1,703	1,948	1,178	1,144	1,082	1,512	1,485	953
Three persons	1,961	1,615	2,040	1,618	1,134	569	1,203	1,771
Four persons	1,952	1,474	1,635	1,177	824	1,903	4,501	2,653
Five persons	1,972	1,578	1,452	1,101	1,660	2,508	1,706	526
Six persons	1,724	1,804	2,840	2,214	2,334	2,161	1,798	1,039
Seven persons or more	2,077	1,950	2,973	2,399	3,531	3,132	2,288	1,266
Nonfamily households:								
One person	1,446	1,455	1,074	1,037	642	792	684	1,683
Two persons	1,903	1,478	1,593	2,016	1,194	925	5,916	479
Three persons or more	2,850	3,618	3,211	2,385	840	642	1,614	954

Medicare and Medicaid. Procedures used to assign the market value of Medicare and Medicaid coverage are based on an insurance value concept. A major problem in the assignment of market values is the identification of a comparable good in the private market and estimation of the cost of the comparable good. The comparable private market, in the case of Medicare and Medicaid, would be nonprofit insurance companies charging premium amounts that cover the cost of benefits and overhead.

In the absence of a similar private market, the market values of Medicare and Medicaid were determined using program data covering the total amount of medical vendor payments and numbers of persons covered or enrolled in the program, including those covered but not receiving medical care benefits from the program.

The market values for Medicare are shown in table B-5 for 1979 and 1984. These values were obtained by dividing medical benefits paid by the number of enrollees. All calculations of market value were made separately by State and risk class. As can be seen in the table, the Medicare risk classes were the aged (persons over age 65) and the disabled. Supplemental medical insurance (SMI) premiums were assumed to be paid by all enrollees and were, therefore, deducted in the market value calculation process. These amounts of SMI premiums *have not* been deducted from the values shown in table B-5. The data in these tables include expenditures for the institutionalized population. The market values based on vendor payments that exclude institutional expenditures were estimated to be about 2 percent lower in all States even though this factor differed slightly from State to State. Unlike the earlier study, no adjustment was made to the average value to account for small amounts of program administrative costs. All of the data used in the estimation of the market value of Medicare are available from the Health Care Financing Administration (HCFA), Department of Health and Human Services.

The market values for Medicaid are shown in tables B-6 and B-7 for 1979 and B-8 and B-9 for 1984. Separate market values based on inclusion and exclusion of institutional expenditures have been provided to illustrate the large differences in market values resulting from the exclusion or inclusion of benefits paid on behalf of institutionalized individuals. Four risk classes were defined for estimating the market value of Medicaid. These were aged, blind or disabled, dependent children under age 21, and adults aged 21 to 64. The calculations for the child and adult risk classes were restricted to expenditures and recipients in Aid to Families with Dependent Children (AFDC) units. Calculations excluded the "other title XIX" recipients and benefits as shown in the annual HCFA tabulation.

The computation of market values for Medicaid was *not* made based on the "ever enrolled" population. Estimating ever enrolled populations within risk class and State for Medicaid is difficult. There are no administrative or survey data available that can be used to develop accurate ever enrolled figures and the figures on those receiving benefits are weak for some States, often requiring revision. An examination of estimates of market value based on recipients of Medicaid benefits with market value estimates based on the ever enrolled figures derived for the original Technical Paper 50 study covering 1979 showed relatively small differences for most States, but large differences for a few States. These apparent problems were traced to major revisions to the HCFA Medicaid data following completion of the original valuation work. Considering the relatively small differences for most States, the problems in obtaining an adequate ever enrolled estimate, and the major revisions made to the 1979 Medicaid data, it was decided to compute the market values for Medicaid based on estimated recipient counts readily available from HCFA. Use of this procedure may overstate the value somewhat but provides a more consistent and stable data base for the examination of the effect of noncash benefits on *changes* in poverty levels during the 1979 to 1984 period. Administrative costs were also excluded in the calculation of Medicaid benefits.

RECIPIENT OR CASH EQUIVALENT VALUE

The recipient or cash equivalent concept attempts to assign a value to the noncash benefit that would make the recipient feel just as well off as the noncash benefit itself. This concept reflects the value the recipient places on the benefit. The recipient or cash equivalent concept assures that the value assigned never exceeds the market value and is, in most cases, less than the market value.

Two procedures have been used by researchers to estimate recipient values. These are the utility function approach and the normal expenditures approach. Both of these approaches have advantages and disadvantages. The major problem in either case, however, is a lack of data needed to adequately estimate recipient value accurately. A more detailed discussion of the recipient value concept and problems of estimation is contained in Technical Paper 50.

The normal expenditure approach was used to estimate recipient values in this study. The first step in this technique is to obtain expenditure data for households purchasing the good or service in the private market. In this valuation effort, the general procedure was to tabulate an average annual household expenditure matrix defined by a set of cross-classifying variables. The next step was comparison of the previously assigned market value of the noncash benefit to the average (normal) expenditure in the appropriate cell of this matrix. The recipient value assigned was equal to the average value in the matrix unless this value is greater than the market value. In this situation, the recipient value is constrained, making it equal to the market value.

Food stamps. The recipient or cash equivalent values for food stamps were based on data from the Consumer Expenditure Survey (CES) diary sample. The CES is conducted by the Bureau of the Census under the sponsorship of the Bureau of Labor Statistics. Since this survey has a relatively small sample size, it was necessary to combine expenditure data for 1980, 1981, and 1982 in order to improve the stability of the normal expenditure matrix. Table B-10 shows the figures used in the assignment of recipient value for food stamps. These figures include both food consumed at home and away from home. In practice, the average subsidy amounts were replaced by subsidy-to-

Table B-5. Annual Market Value for Medicare, by State and Risk Class: 1979 and 1984

(Figures in 1984 dollars)

State	1979 risk class		1984 risk class	
	Age 65 and over	Blind and disabled	Age 65 and over	Blind and disabled
United States	1,329	1,670	1,672	2,120
Alabama	1,098	1,890	1,440	1,796
Alaska	1,524	2,413	1,602	2,489
Arizona	1,244	1,942	1,621	1,998
Arkansas	987	1,693	1,043	1,450
California	1,727	2,652	2,267	2,779
Colorado	1,281	2,039	1,592	1,880
Connecticut	1,391	2,051	1,967	2,368
Delaware	1,337	1,962	1,775	1,845
District of Columbia	1,959	3,301	3,032	3,998
Florida	1,417	2,364	1,761	2,295
Georgia	1,010	1,699	1,417	1,844
Hawaii	1,289	1,826	1,885	2,566
Idaho	977	1,547	1,035	1,496
Illinois	1,528	2,397	2,139	2,643
Indiana	1,146	1,928	1,597	1,912
Iowa	1,108	1,815	1,498	1,675
Kansas	1,285	2,111	1,976	1,874
Kentucky	944	1,633	1,086	1,473
Louisiana	1,069	1,804	1,185	1,724
Maine	1,212	1,952	1,464	1,641
Maryland	1,574	2,454	2,088	2,535
Massachusetts	1,663	2,530	1,768	2,311
Michigan	1,611	2,537	2,034	2,175
Minnesota	1,211	1,877	1,793	1,797
Mississippi	1,006	1,694	1,118	1,775
Missouri	1,302	2,154	1,474	1,978
Montana	1,027	1,699	1,201	1,253
Nebraska	1,122	1,734	1,654	1,678
Nevada	1,598	2,672	2,120	2,180
New Hampshire	1,122	1,869	1,561	1,657
New Jersey	1,365	2,217	1,875	2,740
New Mexico	1,099	1,820	1,146	1,465
New York	1,470	2,325	1,719	2,299
North Carolina	962	1,574	1,342	1,623
North Dakota	1,246	2,165	1,427	2,182
Ohio	1,269	2,147	1,635	1,818
Oklahoma	1,133	1,892	1,213	1,742
Oregon	1,209	1,953	1,377	1,733
Pennsylvania	1,378	2,325	1,786	2,462
Rhode Island	1,498	2,171	1,682	1,672
South Carolina	866	1,583	1,290	1,571
South Dakota	1,012	1,809	1,392	1,276
Tennessee	1,043	1,782	1,334	1,761
Texas	1,241	2,086	1,498	2,462
Utah	1,010	1,527	1,281	1,742
Vermont	1,122	1,806	1,396	1,563
Virginia	1,129	1,804	1,492	2,009
Washington	1,115	1,749	1,315	1,853
West Virginia	996	1,759	1,011	1,351
Wisconsin	1,212	1,972	1,550	1,788
Wyoming	1,035	1,822	1,208	1,653

Table B-6. Annual Market Values for Medicaid Including Institutional Expenditures, by State and Risk Class: 1979

(Figures in 1984 dollars)

State	Age 65 and over	Blind and disabled	Age 21-64, nondisabled	Age less than 21, nondisabled
United States	2,999	3,671	1,006	477
Alabama	1,694	1,604	830	328
Alaska	6,445	5,914	1,029	418
Arizona	2,999	3,671	1,006	477
Arkansas	1,952	2,407	727	338
California	1,939	2,185	963	475
Colorado	2,865	5,511	916	341
Connecticut	6,233	4,402	1,025	515
Delaware	5,114	3,698	806	358
District of Columbia	2,828	4,993	1,365	731
Florida	1,908	1,742	763	388
Georgia	2,129	2,506	926	371
Hawaii	3,754	3,492	912	402
Idaho	3,766	4,443	814	411
Illinois	3,775	4,253	1,095	497
Indiana	5,697	5,946	1,049	424
Iowa	3,889	5,029	997	462
Kansas	3,593	5,459	894	346
Kentucky	1,681	1,855	647	289
Louisiana	2,011	2,643	737	331
Maine	3,130	1,703	645	329
Maryland	3,628	2,451	1,022	545
Massachusetts	1,938	4,616	1,168	525
Michigan	3,985	5,020	1,372	522
Minnesota	5,638	6,324	933	399
Mississippi	1,328	1,666	575	268
Missouri	1,877	2,219	747	311
Montana	4,500	3,902	967	386
Nebraska	3,997	4,957	944	439
Nevada	3,864	5,063	973	409
New Hampshire	5,504	3,925	790	439
New Jersey	5,644	3,771	934	574
New Mexico	1,893	2,385	787	333
New York	5,282	8,589	1,547	788
North Carolina	2,231	2,712	783	326
North Dakota	4,754	3,844	1,161	548
Ohio	4,150	3,575	893	368
Oklahoma	2,886	4,345	551	399
Oregon	3,685	4,206	584	230
Pennsylvania	4,672	3,406	738	355
Rhode Island	3,115	2,989	727	345
South Carolina	2,240	1,756	760	246
South Dakota	4,171	5,235	850	379
Tennessee	2,281	2,244	864	434
Texas	2,680	3,743	1,113	382
Utah	3,831	5,152	947	608
Vermont	3,673	3,925	780	412
Virginia	2,999	2,994	916	406
Washington	3,250	4,808	907	401
West Virginia	1,274	1,274	1,274	1,274
Wisconsin	5,027	5,063	824	422
Wyoming	4,974	3,150	780	280

Table B-7. Annual Market Values for Medicaid Including Institutional Expenditures, by State and Risk Class: 1984

(Figures in dollars)

State	Age 65 and over	Blind and disabled	Age 21-64, nondisabled	Age less than 21, nondisabled
United States	4,037	4,124	859	430
Alabama	1,696	2,116	720	308
Alaska	7,604	10,422	1,272	666
Arizona	4,037	4,124	859	430
Arkansas	2,303	3,068	795	425
California	1,653	2,535	722	384
Colorado	3,013	5,402	829	364
Connecticut	7,828	6,736	1,073	512
Delaware	5,253	4,421	758	389
District of Columbia	7,075	4,217	597	315
Florida	2,810	2,765	585	281
Georgia	2,265	2,758	1,013	404
Hawaii	4,792	3,741	890	378
Idaho	4,759	5,212	890	398
Illinois	3,561	4,085	860	427
Indiana	6,109	6,348	1,270	522
Iowa	3,594	5,080	856	447
Kansas	2,458	3,436	558	317
Kentucky	2,269	2,108	591	287
Louisiana	2,615	4,310	1,030	450
Maine	4,766	3,911	820	376
Maryland	5,353	2,877	1,100	590
Massachusetts	4,610	5,325	1,118	597
Michigan	4,301	4,391	954	368
Minnesota	7,579	10,682	896	430
Mississippi	1,906	1,737	754	338
Missouri	3,267	3,160	733	418
Montana	3,722	2,505	901	301
Nebraska	4,246	5,303	832	468
Nevada	3,853	5,981	977	523
New Hampshire	6,564	5,596	539	281
New Jersey	5,999	4,897	1,045	439
New Mexico	2,976	3,650	1,072	422
New York	8,921	7,214	986	610
North Carolina	3,783	4,443	902	429
North Dakota	5,964	6,469	923	646
Ohio	5,264	5,140	962	467
Oklahoma	3,014	3,675	1,002	692
Oregon	3,894	4,892	936	338
Pennsylvania	5,446	4,864	733	361
Rhode Island	5,291	5,398	681	321
South Carolina	2,310	2,231	540	172
South Dakota	4,894	7,007	954	527
Tennessee	2,656	2,561	1,036	607
Texas	2,687	4,585	1,112	419
Utah	3,792	6,261	858	374
Vermont	4,485	5,193	812	372
Virginia	4,003	3,724	822	337
Washington	3,848	4,734	885	442
West Virginia	2,383	1,215	467	216
Wisconsin	5,087	5,189	734	427
Wyoming	4,967	3,856	926	429

Table B-8. Annual Market Values for Medicaid Excluding Institutional Expenditures, by State and Risk Class: 1979

(Figures in 1984 dollars)

State	Age 65 and over	Blind and disabled	Age 21-64, nondisabled	Age less than 21, nondisabled
United States	597	1,813	995	449
Alabama	429	1,129	830	328
Alaska	695	1,587	1,025	388
Arizona	597	1,813	995	449
Arkansas	451	995	727	336
California	658	1,701	963	472
Colorado	474	1,503	913	312
Connecticut	781	1,932	993	468
Delaware	588	1,713	806	358
District of Columbia	1,803	3,662	1,364	705
Florida	635	1,379	763	388
Georgia	531	1,461	926	371
Hawaii	711	1,617	910	401
Idaho	584	1,551	814	411
Illinois	761	2,189	1,092	494
Indiana	793	2,251	1,045	401
Iowa	675	1,491	987	462
Kansas	529	1,221	892	329
Kentucky	319	1,065	645	286
Louisiana	602	1,052	737	328
Maine	402	1,171	644	328
Maryland	675	1,895	1,019	545
Massachusetts	248	2,169	1,159	507
Michigan	610	2,530	1,345	455
Minnesota	757	1,832	927	395
Mississippi	475	1,115	574	258
Missouri	479	1,224	747	311
Montana	627	2,018	963	385
Nebraska	704	1,724	940	415
Nevada	654	2,809	973	402
New Hampshire	671	2,003	790	431
New Jersey	703	1,902	934	451
New Mexico	495	1,560	786	332
New York	740	3,648	1,508	705
North Carolina	607	1,618	781	322
North Dakota	601	2,252	1,161	548
Ohio	630	1,617	893	365
Oklahoma	664	1,182	541	384
Oregon	522	1,042	584	230
Pennsylvania	448	1,274	697	322
Rhode Island	1,113	1,382	727	345
South Carolina	368	950	753	246
South Dakota	451	1,282	850	379
Tennessee	514	1,219	863	424
Texas	568	1,468	1,113	382
Utah	514	1,425	943	446
Vermont	592	1,847	756	375
Virginia	754	1,607	913	372
Washington	685	1,943	906	401
West Virginia	456	1,025	1,272	1,268
Wisconsin	887	1,920	810	395
Wyoming	356	1,465	778	255

Table B-9. Annual Market Values for Medicaid Excluding Institutional Expenditures, by State and Risk Class: 1984

(Figures in dollars)

State	Age 65 and over	Blind and disabled	Age 21-64, nondisabled	Age less than 21, nondisabled
United States	1,016	2,550	851	417
Alabama	458	1,016	720	308
Alaska	2,589	3,834	1,236	659
Arizona	1,016	2,550	851	417
Arkansas	745	1,283	795	423
California	520	1,928	721	382
Colorado	727	2,524	799	347
Connecticut	1,102	5,271	1,066	504
Delaware	642	1,855	758	389
District of Columbia	1,324	2,638	594	305
Florida	742	1,507	585	281
Georgia	794	1,452	856	346
Hawaii	837	2,602	889	378
Idaho	490	1,788	890	398
Illinois	856	4,204	962	469
Indiana	905	3,181	1,270	518
Iowa	650	1,716	856	435
Kansas	469	2,020	558	305
Kentucky	396	1,634	590	272
Louisiana	890	1,812	1,029	440
Maine	760	1,918	792	343
Maryland	997	2,563	1,078	589
Massachusetts	1,702	3,647	1,117	596
Michigan	835	3,477	952	327
Minnesota	915	4,249	935	436
Mississippi	603	1,057	754	338
Missouri	648	1,532	732	411
Montana	492	1,442	900	300
Nebraska	828	3,538	831	460
Nevada	622	3,671	977	523
New Hampshire	579	3,161	537	281
New Jersey	1,019	2,439	1,045	439
New Mexico	724	2,184	1,068	422
New York	2,789	5,652	980	580
North Carolina	899	3,169	900	422
North Dakota	555	3,801	1,088	595
Ohio	1,204	2,538	962	465
Oklahoma	970	4,758	885	578
Oregon	830	1,493	828	338
Pennsylvania	552	2,228	677	343
Rhode Island	1,859	2,055	681	321
South Carolina	462	960	540	172
South Dakota	681	3,436	954	527
Tennessee	552	1,384	1,034	527
Texas	902	1,790	1,111	419
Utah	605	1,939	855	365
Vermont	831	3,157	788	367
Virginia	922	1,965	820	335
Washington	677	1,993	884	440
West Virginia	417	871	467	216
Wisconsin	823	1,828	725	390
Wyoming	334	2,675	926	429

Table B-10. Mean Annual Normal Expenditures for Food, by Total Household Money Income and Size of Family Unit

(Figures in dollars. Combined data from 1980, 1981, and 1982 Current Expenditure Survey Monthly Diaries)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	1,015	1,328	1,464	1,683	1,394	1,676	2,370	2,293
Two persons or more	1,414	1,806	2,143	2,536	2,556	2,383	2,810	3,577
Householder under 65 years in--								
Married-couple family households:								
Two persons	648	1,916	2,103	2,465	2,369	2,842	2,921	3,293
Three persons	344	2,683	2,308	2,395	2,612	3,036	2,912	3,716
Four persons	621	2,774	2,521	2,902	2,791	3,278	3,334	4,352
Five persons	931	2,159	3,119	3,091	3,299	2,778	4,319	4,864
Six persons	1,000	2,188	2,517	3,582	3,710	4,226	4,058	5,303
Seven persons or more	1,250	2,938	3,914	4,642	4,291	5,191	4,563	5,570
Other family households:								
Two persons	991	1,472	1,769	1,782	2,539	2,732	2,468	2,938
Three persons	1,404	2,177	1,719	2,329	2,958	3,250	3,272	3,546
Four persons	1,125	2,203	2,009	2,958	3,491	2,913	2,316	4,772
Five persons	931	2,159	3,119	3,091	3,299	2,778	4,319	4,864
Six persons	1,000	2,188	2,517	3,582	3,710	4,226	4,058	5,303
Seven persons or more	1,250	2,938	3,914	4,642	4,291	5,191	4,563	5,570
Nonfamily households:								
One person	714	1,123	1,303	1,600	1,637	1,782	2,123	2,626
Two persons or more	999	1,799	2,265	2,386	2,097	2,052	2,339	3,561

income ratios in order to compute recipient values. These ratios are shown in table B-11 and were used in the estimation process throughout the 1979-84 period.

Since food stamps may have been received for a specified number of months during the year, the calculation of recipient value should be based only on the months during which the stamps were received. Data collected in the March CPS on the number of months received were used to account for these part-year recipients. This was accomplished by transforming the average annual normal food expenditures and market value of food stamps to average monthly figures. In these cases, if the average monthly normal expenditure was less than the average monthly food stamp amount, the annual recipient value was made equal to the average monthly normal expenditure multiplied by the number of months in which food stamps were received. If the monthly normal expenditure was greater than the market value, the annual recipient value equaled the annual market value of food stamps.

School lunches. Estimating normal expenditures for school lunches is difficult since virtually all school children eating lunches prepared at school are participating in the program; i.e., there is no private market from which to estimate normal expenditures. Given this problem and the relatively small size of the benefits, a decision was made to assign recipient values to school lunch benefits that were equal to the market value of these benefits.

Public or other subsidized rental housing. Estimates of recipient value for public housing tenants were based on data from the 1979 and 1981 Annual Housing Survey as were the estimates of market value. The first step in the procedure was tabulation of average or normal annual rental expenditures in the private market place—in this case, rental units in nonpublic housing. Data for 1979 and 1981 were combined to increase the sample size in order to stabilize the average rental amounts. The normal expenditure estimates tabulated for the recipient value calculations are shown in table B-12.

The second step, calculation of recipient value for public housing, is somewhat more complicated than for food stamps because the recipients pay a reduced price rather than obtaining the goods at no cost. First, the market rent established as part of the market value procedures (table B-2) was compared to the appropriate normal expenditures figure in table B-12. If the market rent figure was less than the normal expenditure, the recipient value was assigned to be equal to the market value of the benefit. If the market rent figure was greater than the normal expenditure, the recipient value was determined as the difference between the normal expenditure and the subsidized rental payment (table B-4). In practice, the average figures shown

Table B-11. Annual Food Expenditure-to-Income Ratios, by Total Household Money Income and Size of Family Unit

(Combined data from 1980, 1981, and 1982 Current Expenditure Survey Monthly Diaries)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	.286	.221	.170	.149	.102	.102	.128	.074
Two persons or more	.399	.284	.244	.228	.186	.148	.151	.103
Householder under 65 years in--								
Married-couple family households:								
Two persons	.480	.286	.237	.222	.172	.177	.156	.093
Three persons	.391	.411	.274	.215	.190	.188	.155	.107
Four persons	.409	.419	.282	.256	.204	.202	.179	.123
Five persons	.378	.332	.365	.270	.241	.172	.232	.138
Six persons	.400	.350	.274	.327	.270	.262	.216	.142
Seven persons or more	.500	.470	.435	.417	.312	.315	.239	.160
Other family households:								
Two persons	.342	.244	.203	.160	.184	.170	.132	.098
Three persons	.490	.344	.200	.210	.213	.203	.176	.119
Four persons	.450	.374	.225	.263	.255	.179	.121	.147
Five persons	.378	.332	.365	.270	.241	.172	.232	.138
Six persons	.400	.350	.274	.327	.270	.262	.216	.142
Seven persons or more	.500	.470	.435	.417	.312	.315	.239	.160
Nonfamily households:								
One person	.266	.183	.152	.144	.120	.112	.115	.088
Two persons or more	.340	.280	.252	.209	.150	.126	.129	.103

Table B-12. Mean Annual Normal Expenditures for Rental Units in Nonsubsidized Housing, by Total Household Money Income and Size of Family Unit

(Figures in dollars. Combined data from 1979 and 1981 Annual Housing Survey)

Size of family unit	Total household money income							
	Less than $5,000	$5,000 to $7,499	$7,500 to $9,999	$10,000 to $12,499	$12,500 to $14,999	$15,000 to $17,499	$17,500 to $19,999	$20,000 or more
Householder 65 years and over:								
One person	2,092	2,702	3,002	3,073	3,583	4,023	3,439	3,915
Two persons or more	2,396	2,805	3,223	3,546	3,356	3,690	3,798	4,674
Householder under 65 years in--								
Married-couple family households:								
Two persons	2,680	2,821	2,864	3,181	3,140	3,165	3,316	4,441
Three persons	2,836	2,846	2,889	3,134	3,284	3,502	3,574	4,495
Four persons	3,115	3,042	3,247	3,207	3,422	3,387	3,647	4,789
Five persons	2,829	2,852	3,118	3,498	3,513	3,567	3,500	4,864
Six persons	3,799	2,973	2,927	3,201	3,618	2,806	4,024	4,106
Seven persons or more	3,307	2,094	2,965	3,405	3,511	3,870	4,161	4,701
Other family households:								
Two persons	2,721	3,032	2,991	3,197	3,479	3,574	3,733	4,485
Three persons	2,819	2,930	3,317	3,274	3,572	3,520	3,515	4,759
Four persons	2,971	3,027	3,324	3,680	3,209	3,873	3,514	4,678
Five persons	2,773	3,414	3,616	3,214	3,065	3,803	4,046	4,163
Six persons	2,614	3,346	3,358	3,042	3,566	2,498	3,468	4,188
Seven persons or more	3,209	3,204	3,204	3,467	3,332	2,383	3,594	4,602
Nonfamily households:								
One person	2,306	2,480	2,632	2,858	3,012	3,205	3,352	4,204
Two persons	2,934	3,082	3,264	3,436	3,449	3,595	3,451	4,635
Three persons or more	3,061	3,238	3,870	3,902	4,703	3,975	4,623	6,203

in these tables were replaced by expenditure-to-income ratios. These ratios were then used in the calculations for each of the 5 years.

Medical care benefits. The procedures used to estimate recipient value of medical care benefits were based on simple updates of the original 1979 techniques. For the purpose of estimating normal expenditures for medical care, a nonsubsidized population is, for all practical purposes, nonexistent. The aged population is almost totally covered by the Medicare program and the population under 65 years of age receives widespread coverage from employer-provided group health insurance.

The estimates of normal expenditures for medical care were made using data from the 1972-73 Consumer Expenditure Survey (CES) in spite of the major problems cited above. The normal expenditure tabulation used as the basis for this study is shown in table B-13. The data for the under-age-65 population were derived from CES survey cases reporting partial employer-provided coverage. The expenditure data do not include the amount of the employer's contribution, and therefore, the normal expenditures for this group are probably underestimated. The sample group used to derive the normal expenditures for the 65-and-over population included persons with Medicare coverage but excluded persons covered by Medicaid and those covered by both Medicaid and Medicare. Use of the Medicare population in estimates of normal expenditures is undesirable and probably results in underestimates of recipient value as well.

The normal expenditure data in table B-13 were tabulated from the 1972-73 CES. Adjustments were then made to the 1972-73 average medical expenditures and income classes to account for the increases in consumer prices. The expenditure data were adjusted by the change in the medical component within the overall Consumer Price Index (CPI). The income classes were adjusted by the change in the overall CPI. These same adjustments were made annually to update the 1979 figures in this table to the appropriate year between 1980 and 1984.

The assignment of recipient values followed the same procedures as outlined for food stamps. Separate estimates of recipient value were made based on the inclusion or exclusion of institutional care expenditures.

POVERTY BUDGET SHARES

The third procedure used to value noncash benefits in this study was the poverty budget share (PBS) approach. The PBS approach is a different and much more limited valuation technique that links the value of the noncash benefit directly to the current money income poverty concept. The PBS approach assumes that, for purposes of measuring poverty, the value assigned to the benefit can be no greater than the amount that is usually spent on the specified good or service by people near the poverty level, since values in excess of this amount cannot always substitute for other needs.

Food benefits. The values of food stamps and school lunch benefits were combined for the calculation of the PBS value for food benefits. The amount spent on food by families near the poverty line was assumed to be one-third of the appropriate poverty level. This reflects directly the food-to-income ratio used to develop the current poverty definition. The PBS limits for food benefits are shown in table B-14 for 1979 through 1984. The figures in this table are simply the weighted average

Table B-13. Normal Expenditure Values for Medical Care, by Age or Disability Status of the Householder and Size of Household

(In 1979 dollars)

Total household income	Householder age 65 years old and over or disabled		Householder under 65 years old and not disabled				
	One person	Two persons or more	One person	Two persons	Three persons	Four persons	Five persons or more
Under $1,250	341	637	99	209	307	380	410
$1,250 to $2,499	291	547	146	219	373	402	430
$2,500 to $3,749	385	578	178	290	390	396	421
$3,750 to $4,999	443	608	209	311	263	364	393
$5,000 to $6,249	488	828	248	336	256	383	414
$6,250 to $7,499	646	770	306	520	443	460	497
$7,500 to $8,749	610	891	289	549	518	419	575
$8,750 to $9,999	642	807	315	576	572	450	601
$10,000 to $11,24	684	868	302	585	652	637	675
$11,250 to $12,49	718	862	309	588	655	662	721
$12,500 to $13,74	738	1,060	299	606	662	588	712
$13,750 to $14,99	695	1,070	290	601	661	582	715
$15,000 or more	753	1,202	375	678	803	867	926

Table B-14. Poverty Budget Shares for Food, by Year and Size of Family Unit: 1979-84

(Figures in dollars)

Size of family unit	1979	1980	1981	1982	1983	1984
One person (unrelated individual)..	1,228	1,395	1,540	1,634	1,687	1,759
15 to 64 years.....	1,258	1,429	1,576	1,673	1,727	1,800
65 years and over.....	1,157	1,314	1,453	1,542	1,592	1,660
Two persons.....	1,567	1,779	1,972	2,094	2,161	2,254
Householder 15 to 64 years.....	1,619	1,839	2,037	2,162	2,232	2,328
Householder 65 years and over....	1,455	1,651	1,833	1,945	2,008	2,094
Three persons.....	1,921	2,180	2,417	2,564	2,646	2,759
Four persons.....	2,462	2,795	3,096	3,287	3,393	3,536
Five persons.....	2,912	3,308	3,669	3,895	4,016	4,189
Six persons.....	3,283	3,738	4,150	4,402	4,543	4,736
Seven persons (or more[1]).....	4,071	4,628	4,703	5,012	5,167	5,365
Eight persons.....	(X)	(X)	5,218	5,573	5,723	5,987
Nine persons or more.....	(X)	(X)	6,191	6,566	6,770	7,082

[1]1979 and 1980.
X Not applicable.

poverty threshold for the specified family type multiplied by one-third.

The PBS value was computed by comparing the combined market value of food stamps and school lunch to the PBS limit. If the market value was greater than the PBS limit, the PBS value was constrained to the PBS limit. If the market value was lower, the PBS value was equal to the market value.

Public or other subsidized rental housing. The PBS values for public or other subsidized rental housing were computed using the 1979 and 1981 AHS data. Calculation of the PBS limits were based on the housing expenditure to income ratios shown in table B-15. These ratios represent the proportion of income spent on nonsubsidized rental housing by families with incomes within ±25 percent of the poverty level and are averages of the 1979 and 1981 data from the AHS for nonsubsidized housing units.

The calculation of the PBS limit was made by multiplying the appropriate proportion in table B-15 by the family's poverty level. If the previously assigned market rent exceeded the PBS limit, the PBS value for public housing was made equal to the difference between the PBS limit and the amount of subsidized rent paid. If the market rent was less than the PBS limit, the PBS value for public housing was made equal to the market value of the subsidy.

Medical care. The PBS values for noncash medical care benefits were computed using the same expenditure to income ratios at the poverty line as used in the previous study. These ratios, which were derived from the 1960-61 Consumer Expenditure Survey, are shown in table B-16. The data from the 1960-61 survey were selected because they reflect expenditure patterns for medical care that existed prior to the Medicare program and expansion of employer-provided benefits. The PBS value for medical care was computed by comparing the combined market value of Medicare and/or Medicaid for the family with the PBS limit. The PBS value was equal to the PBS limit if the market value exceeded the limit or equal to the market value if the market value was lower.

Table B-15. Poverty Budget Shares for Public or Other Subsidized Rental Housing, by Size of Family Unit

Size of family unit	Expenditure-to-income ratio
Householder 65 years and over:	
One person	.567
Two persons or more	.525
Householder under 65 years in--	
Married-couple family households:	
Two persons	.498
Three persons	.446
Four persons	.384
Five persons	.324
Six persons	.288
Seven persons or more	.270
Other family households:	
Two persons	.548
Three persons	.471
Four persons	.401
Five persons	.344
Six persons	.299
Seven persons or more	.306
Nonfamily households:	
One person	.572
Two persons	.522
Three persons or more	.487

Table B-16. Poverty Sudget Shares for Medical Benefits, by Size of Family Unit

(Ratios based on 1960-61 Consumer Expenditure Survey)

Size of family unit	Expenditure-to-income ratio
One person (unrelated individual):	
15 to 64 years	.044
65 years and over	.114
Two persons:	
Householder 15 to 64 years	.060
Householder 65 years and over	.103
Three persons	.053
Four persons	.044
Five persons	.054
Six persons or more	.048

Source: U.S. Bureau of the Census, Estimates of Poverty Including the Value of Noncash Benefits—1984, technical paper 55 (Washington, D.C.: U.S. Government Printing Office, 1985), pp. 53-66.

Information Reported by the Bureau of the Census Concerning SIPP Data Quality

Two major determinants of the quality of income data collected in household surveys are the magnitude of missing responses and the accuracy of the responses that are provided. This appendix has been included to supply information concerning nonresponse rates for selected income questions, the average amounts of income reported in the survey or assigned in the imputation of missing responses, and the extent to which the survey figures underrestimate numbers of income recipients and amounts of income received.

Nonresponse in this discussion refers to missing responses to specific questions or "items" on the questionnaire. Noninterviews or complete failure to obtain cooperation from any household member have not been considered in this examination of nonresponse rates. Adjustments to account for noninterviews are made by proportionally increasing the survey weights of interviewed households. Missing responses to specific questions are assigned a value in the imputation phase of the data processing operation.

Nonresponse is a very important factor in assessing the quality of survey data. Nonresponses to income questions cannot be considered random since experience has shown that persons with the highest nonresponse rates have reported characteristics such as education levels and occupations that, in general, differ from population averages. The most frequent causes of nonresponse are the inability of the respondent to answer the question because of either a 1) lack of knowledge or 2) refusal to answer. The first reason is especially important in situations of proxy response when one household member answers questions for another household member not present at the time of the interview. The practice of accepting proxy interviews from household members deemed "qualified" to answer is a standard procedure in the CPS and most other surveys conducted by the Bureau. During the third and fourth interview periods of SIPP, about 35 percent of the interviews were taken from proxy respondents.

The magnitude of nonresponse is generally presented in terms of a nonreponse rate computed by dividing the number of nonresponses by the total number of responses that should have been provided. The first two columns of table D-1 show the number of persons with income and nonresponse rate for a selected group of income amount questions from SIPP for the second quarter of 1984. Nonresponse rates for the March 1984 CPS based on annual income amount questions are shown in the third column.

Table D-1. Persons Nonresponse Rates for SIPP and the March 1984 CPS, and Median Monthly Amounts Reported and Imputed, for Selected Income Types

Income type	SIPP 1984 second quarter monthly average		March 1984 CPS	SIPP median monthly average amounts	
	Number with income (thous.)	Nonresponse rate for amounts received	Nonresponse rate for amounts received	Reported	Imputed
Wage or salary	96,902	7.5	17.4	$1,133	$1,207
Self-employment income	8,371	16.2	25.2	826	1,083
Federal Supplemental Security income	3,511	8.4	16.5	201	271
Social Security income	32,441	11.6	20.1	401	412
Aid to Families with Dependent Children	3,177	6.9	13.4	297	261
Unemployment compensation	2,269	13.6	19.0	388	292
Company or union pensions	7,938	14.0	22.6	238	256
Food stamp allotment	6,812	6.3	12.7	101	83
Veterans' compensation or pensions	3,503	11.2	16.6	128	98

The SIPP nonresponse rates ranged from a low of about 6 percent for food stamps to about 16 percent for self-employment income. These rates were computed by dividing the number of persons with missing responses on the amount received by the total number with either a missing or reported amount for that income type.

The SIPP nonresponse rates for second-quarter average monthly amounts contrast sharply with the higher nonresponse rates encountered in the March CPS. The rates for the CPS ranged from a low of 13 percent for food stamp allotments and Aid to Families with Dependent Children to 25 percent for self-employment income. The major emphasis given to complete and accurate income information in SIPP and 4-month recall period are two factors that have contributed to the significantly lower nonresponse rates in the SIPP.

Nonresponses are assigned values prior to producing estimates from the survey data. The procedure used to assign or impute responses for missing data for SIPP are of a type commonly referred to as a "hot deck" imputation method. This process assigns values reported in the survey by respondents to nonrespondents. The respondent from whom the value is taken is termed the "donor." Values from donors are stored in a matrix defined by demographic and economic data available for both donors and nonrespondents. Each cell of the matrix defines a unique combination of demographic and economic characteristics. For example, the imputation of an amount for monthly wage and salary income is based on eight different variables. These were 1) occupation, 2) sex, 3) age, 4) race, 5) educational attainment, 6) weeks worked, 7) usual hours worked per week, and 8) place of residence.

The last two columns in table D-1 compare median reported and imputed income amounts for SIPP monthly averages, second quarter 1984. The differences between reported and imputed median amounts were statistically significant at the 95-percent confidence level for wage and salary income, self-employment income, unemployment compensation, and veterans' compensation or pensions.

The second important determinant of data quality and probably the one examined most closely by users of the income data collected in household surveys is the accuracy of reported (and imputed) amounts. In general, household surveys have a tendency to underestimate the number of persons receiving income and the average amount received. These problems result for a variety of reasons including random response error, misreporting of sources of income, failure to report the receipt of income from a specified source, and failure to report the full amount received. The net effect of these kinds of problems is, for most income types, underestimation or underreporting of income amounts. The extent of underreporting is measured by comparing survey estimates with independently derived estimates usually based on administrative data that are, generally more reliable than the estimates derived from the survey. It should be noted that the independent estimates are subject to errors themselves. In addition, independent estimates do not reflect income attributable to the "underground" economy, some of which may be reported in the survey.

Table D-2 contains comparisons of SIPP estimates of the number of persons receiving specific income sources with independent estimates derived from various administrative sources. Table D-3 shows similar comparisons based not on the number of recipients but on the aggregate amount of income received. Data in both of these tables are preliminary and subject to revision.

The comparisons in table D-2 are limited to some of the major transfer programs for which administrative data are available for the April-June 1984 period. Adjustment factors were applied to these administrative figures in order to arrive at the independent estimates for the SIPP noninstitutional population eligible for interview. The adjustment factors used were based on procedures developed by Mathematical Policy

Table D-2. Comparison of Estimated Number of Income Recipients, for Selected Income Types, Second Quarter 1984: SIPP vs. Independently Derived Estimates

(Numbers in thousands)

Income type	Monthly average recipients		SIPP as a percent of independent estimate
	SIPP estimate	Independent estimate	
Federal Supplemental Security Income	3,492	3,574	97.7
Social Security income	32,432	33,190	97.7
Aid to Families with Dependent Children[1]	3,171	3,687	86.0
Unemployment compensation	2,212	2,682	82.5
Food stamp allotment	18,869	20,854	90.5
Veteran's compensation or pensions[1]	3,503	3,859	90.8

[1]Excludes dependents covered by payments.

Table D-3. Comparison of Estimated Aggregate Income Amounts Received, for Selected Income Types, Second Quarter 1984: SIPP vs. Independently Derived Estimates

(Monthly averages. Figures in millions of dollars)

Income type	SIPP estimate	Independent estimate	SIPP as a percent of the independent estimate
Wage or salary	138,641	146,916	94.4
Self-employment income	15,855	(NA)	(X)
Federal Supplemental Security income	763	783	97.4
Social Security income	13,254	13,111	101.1
Aid to Families with Dependent Children	1,010	1,175	86.0
Unemployment compensation	897	1,079	83.1
Food stamp allotment	765	887	86.2
Veterans' compensation or pensions	792	1,063	74.5

NA Not available.
X Not applicable.

Research, Inc., for deriving independent estimates for the 1979 ISDP research panel.

Survey underestimates of income recipients ranged from about 18 percent for State unemployment compensation payments and 14 percent for Aid to Families with Dependent Children to about 2 percent for Social Security recipients.

The underreporting for Aid to Families with Dependent Children is related to misclassification of this income type as other types of public assistance or welfare. A total of 1,027,000 persons reported receiving general assistance and 176,000 reported receiving other types of welfare payments for the second quarter. A significant number of these cases are actually payments from the Aid to Families with Dependent Children program. This particular problem was also encountered and documented in the developmental ISDP.

Table D-3 provides comparisons of SIPP and independent estimates of the aggregate amount of income received for the *total* noninstitutional population for the second quarter of 1984. Nonseasonally adjusted, monthly independent estimates for wage and salary income is not available. The estimate shown for wage and salary is based on Bureau of Economic Analysis seasonally adjusted, annual rate estimates for the second quarter divided by 12. Other independent estimates shown in tables D-2 and D-3 are based on various sources including the Social Security Bulletin and unpublished figures from the Department of Health and Human Services, the Department of Agriculture, and the Veterans' Administration.

In most cases the comparisons in table D-3 on aggregate amounts for the second quarter parallel the figures in table D-2 for estimated number of recipients. The comparison for wage and salary income is difficult to interpret because the independent estimate is seasonally adjusted. A monthly independent estimate for self-employment income is not available because the self-employment income estimates are based on different concepts. The SIPP figure is based on the "salary" and other income received from the business by the owners. More refined comparisons between SIPP estimates and estimates derived from independent sources will be made in future reports.

Table D-4 shows the monthly averages for the number of income recipients and aggregate amounts of income received for the second quarter 1984 for the total population and the nonfarm population. Most of the largest sources of income have been included in this table.

Table D-4. Persons 15 Years Old and Over Receiving Income and Aggregate Amount Received, for Selected Income Types: Monthly Average, Second Quarter 1984

Income type	Total		Nonfarm	
	Number with income (thousands)	Aggregate amount (millions of dollars)	Number with income (thousands)	Aggregate amount (millions of dollars)
Wage or salary	97,086	138,641	95,368	136,621
Self-employment income	8,372	15,855	7,807	13,803
Social Security income	32,432	13,254	31,478	12,899
Federal Supplemental Security income	3,492	763	3,454	758
State unemployment compensation	2,212	897	2,201	892
Veterans' compensation or pensions	3,503	792	3,441	784
Workers' compensation	653	432	639	427
Aid to Families with Dependent Children	3,171	1,010	3,146	1,004
General assistance	1,027	202	1,022	201
Child support	3,119	741	3,094	738
Alimony	482	227	482	227
Company or union pensions	7,936	2,916	7,829	2,876
Federal employee pensions	1,812	1,638	1,789	1,616
U.S. military pensions	1,313	1,317	1,298	1,306
State government employee pensions	1,987	1,043	1,917	1,009
Local government employee pensions	834	451	819	440
Estates and trusts	315	246	311	245
Income from paid-up life insurance or other annuities	741	186	726	183
Money from relatives or friends	1,266	497	1,253	495
Interest income from regular savings accounts, money market deposit accounts, certificates of deposit or other savings certificates, and interest-bearing checking accounts	101,454	6,514	98,661	6,291
Interest income from money market funds, U.S. government securities, municipal or corporate bonds, and other interest-bearing assets	10,452	1,769	10,254	1,713
Interest on mortgages	3,485	897	3,377	847
Dividends	20,095	3,188	19,640	3,106
Net rental income	9,902	1,458	9,484	1,[illegible]32
Income from royalties and other financial investments	2,838	1,532	2,659	1,467

Source: U.S. Bureau of the Census, Current Population Reports, Series P-70, No. 4, Economic Characteristics of Households in the United States: Second Quarter 1984, U.S. Government Printing Office, Washington, D.C., pp. 49-52.

Sampling Errors for Key SIPP Data

Two- to four-member AFDC families living alone	Estimated amount	Estimated sampling error at 95-percent confidence level[a]
Average monthly income		
Market value	$819	$50
Recipient value	646	50
Percentage participating in other welfare programs		
Medicaid	100%	•
Food stamps	96	3[c]
School lunch	57	8
Public housing	17	11
Section 8 housing	15	11
WIC	18	11
Percentage above the poverty line		
At market value		
Cash only	8	4
Cash and food stamps	13	5
Cash, food, and housing	26	6
Cash, food, housing, and Medicaid	60	7
At recipient value		
Cash only	8	4
Cash and food stamps	12	5
Cash, food, and housing	21	6
Cash, food, housing, and Medicaid	27	6
Average monthly income by family size		
At market value		
Two recipient	$655	$40
Three recipient	767	50
Four recipient	1,039	110
At recipient value		
Two recipient	522	40
Three recipient	597	50
Four recipient	824	120
Average AFDC payment by family size		
Two recipient	262	3C
Three recipient	316	3C
Four recipient	401	5C

Comparison groups	Estimated amount	Estimated sampling error at 95-percent confidence level
Two- to four-member welfare families not receiving AFDC		
Average monthly income		
At market value		
Single parent	$1,024	$100
Married couple	1,399	120
Percentage above the poverty line		
At market value		
Single parent	71%	6%
Married couple	79	5
Households with two to four AFDC recipients and persons not receiving AFDC		
Average monthly income at market value	$1,674	$210
All U.S. households—percentage participating in selected welfare programs		
Medicaid coverage	9%	2%
Food stamps	7	2
School lunch	7	2
WIC	2	2
Housing assistance	4	2
SSI	3	2
AFDC	3	2

[a]Estimated sampling error computed using the Census Bureau procedures for SIPP described in SIPP Wave III Documentation.

Sampling Errors for Key County Estimates

	Estimated amount	Estimated sampling error at 95-percent confidence	95-percent confidence interval
Two- to four-member AFDC families living alone			
Average monthly income at market value			
Alameda County	$1,017	$41	$975 - $1,058
Albany County	906	21	885 - 926
Cuyahoga County	790	14	776 - 804
Fulton County	930	32	897 - 962
Average AFDC payments			
Alameda County	540	16	523 - $556
Albany County	392	10	381 - 402
Cuyahoga County	288	5	283 - 293
Fulton County	246	6	239 - 252
Percentage participating in other major welfare programs			
Alameda County			
Medicaid	100%	0%	100 - 100
Food stamps	89	4	85 - 93
Public housing	23	3	20 - 26
Section 8 housing	9	5	4 - 14
School meals	69	6	63 - 75
WIC	16	4	12 - 20
Albany County			
Medicaid	100	0	100 - 100
Food stamps	99	4	95 - 100
Public housing	19	4	15 - 24
Section 8 housing	14	4	10 - 18
School meals	43	5	39 - 48
WIC	39	5	33 - 44
Percentage participating in other major welfare programs			
Cuyahoga County			
Medicaid	100%	0%	100 - 10
Food stamps	97	2	95 - 9
Public housing	7	3	4 - 1
Section 8 housing	6	3	3 -
School meals	60	6	54 - 6
WIC	22	5	17 - 2

(continue

	Estimated amount	Estimated sampling error at 95-percent confidence	95-percent confidence interval
Fulton County			
Medicaid	100	0	100 - 100
Food stamps	94	3	92 - 97
Public housing	49	6	43 - 55
Section 8 housing	27	5	22 - 32
School meals	63	5	58 - 68
WIC	17	4	13 - 21
Average income for AFDC families living in subsidized housing			
Alameda County	$1,327	$119	$1,208 - $1,446
Albany County	1,023	29	994 - 1,051
Cuyahoga County	1,050	32	1,018 - 1,083
Fulton County	1,012	25	987 - 1,037
Two- to four-member AFDC families living alone or with others not receiving AFDC[a]			
Average income for AFDC families with earnings			
Alameda County	$1,175	$171	$1,004 - $1,347
Albany County	1,085	59	1,025 - 1,144

[a]Data include only income and benefits of the AFDC-covered members of these households

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