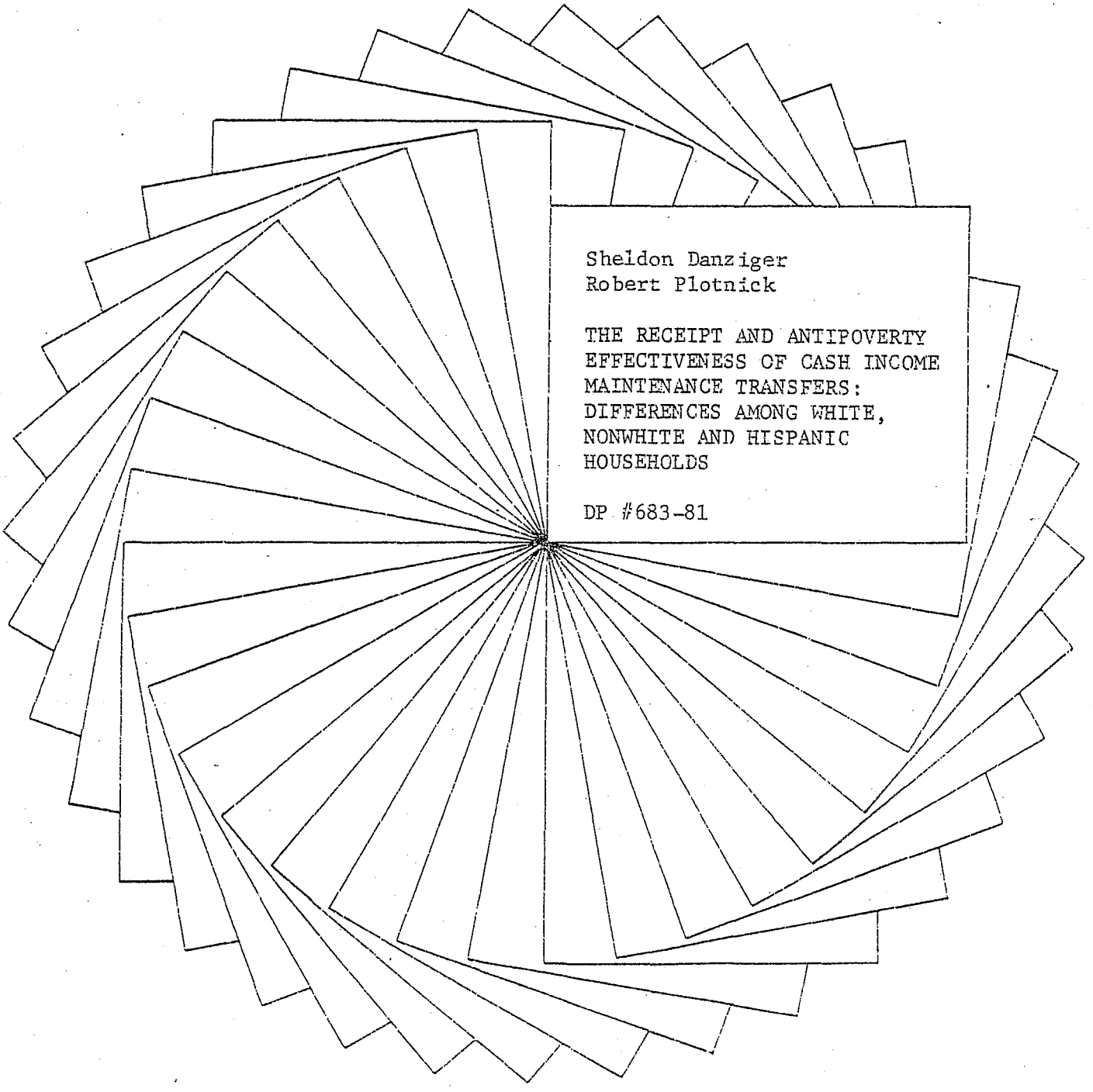
University of Wisconsin-Madison

Institute for Research on Poverty

Discussion Papers



Sheldon Danziger
Robert Plotnick

THE RECEIPT AND ANTIPOVERTY EFFECTIVENESS OF CASH INCOME MAINTENANCE TRANSFERS: DIFFERENCES AMONG WHITE, NONWHITE AND HISPANIC HOUSEHOLDS

DP #683-81

The Receipt and Antipoverty Effectiveness of Cash Income Maintenance Transfers: Differences Among White, Nonwhite and Hispanic Households

Sheldon Danziger
University of Wisconsin - Madison

and

Robert Plotnick
Dartmouth College

December 1981

This research was supported in part by funds granted to the Institute for Research on Poverty at the University of Wisconsin-Madison by the Department of Health and Human Services. Daniel Feaster provided valuable research assistance. Daniel Feaster, Irv Garfinkel, Robert Haveman, Robert Lampman, Eugene Smolensky and Jennifer Warlick offered helpful comments on a previous draft.

ABSTRACT

This paper contrasts the extent to which cash income maintenance transfers aided poor white, nonwhite, and Hispanic households in 1978. While the number of transfer recipients and the average benefit have grown in recent years, significant gaps in coverage and inadequacies in benefits remain, particularly for households where the head is less than 65 years of age. A greater percentage of all minority households receive transfers because they are more likely to be pretransfer poor. However, contrary to conventional wisdom, the receipt of transfers is quite similar regardless of race, once economic need and the age and sex of the household head have been taken into account. And, among the poor, whites are more likely than minorities to be removed from poverty by transfers because they receive larger amounts on average.

The Receipt and Antipoverty Effectiveness of Cash Income Maintenance Transfers: Differences Among White, Nonwhite and Hispanic Households

INCOME TRANSFERS AND ANTIPOVERTY POLICY

The primary intent of the war on poverty was to promote employment opportunities and higher wages. The poor could then escape poverty in the same manner as the nonpoor--through the private labor market, and not because of government transfer payments. Despite these hopes, income maintenance expenditures grew rapidly. By 1978, such spending for the year cost about three times as much in real terms as in 1965 due to the introduction of new programs and to increases in both the number of beneficiaries and the size of income maintenance payments in existing programs. During this period, the average inflation-adjusted cash transfer for recipient households grew by 55 percent, while mean Census income for all households increased by only 20 percent. Poverty declined after the war against it was declared, but not because the poor were aided through manpower programs or increased employment opportunities. Rather, increases in income maintenance transfers accounted for most of this decline (Danziger and Plotnick, 1982).

This paper contrasts the extent to which cash income maintenance transfers aided poor white, nonwhite, and Hispanic households in 1978.[1] It shows that about 80 percent of those who would have been poor in the absence of transfers received cash transfers that averaged over 70 percent of their total cash incomes. While much attention has been focused on the high degree of dependence on transfers by minority households, we

find that poor whites were equally dependent upon transfers. And because they receive larger average transfers than similar minority households, the antipoverty effectiveness of transfers is greater for whites. Finally, despite the high aggregate cost of transfers, most nonaged households did not receive enough in transfers to raise their total incomes above the official poverty line.

ECONOMIC STATUS AND DEPENDENCE ON CASH TRANSFERS

All Households

Table 1 presents data on the economic status of white, nonwhite, and Hispanic households, measured by mean Census money income, and on dependence on cash transfers, measured by the percentage of households receiving transfers and by transfers as a percentage of mean Census income.[2] Households are further classified by the age and sex of the head. Table 1 reflects the well-known large differences in economic status between majority and minority, between male-headed and female-headed, and between nonaged and aged households. The means for Census money income range from $6859 for aged nonwhites to $21,576 for nonaged white males. Cash transfers were received by 41.8 percent of all households in 1978.[3] As expected, almost all households headed by someone 65 years of age or older received a transfer. Somewhat surprisingly, however, a quarter of all households headed by nonaged white males--the group with the highest mean income--received transfers. Among the nonaged, a slightly larger percentage of minority men than white men, and a larger percentage of minority women than white women, received transfers.

Table 1

Economic Status and Dependence on Cash Transfers, All Households, 1978

Household Heads	Mean Census Money Income	Percentage of Households Receiving a Cash Transfer	Cash Transfers as a Percentage of Census Money Income, All Households
Nonaged Males			
White	$21,576	25.1%	4.1%
Nonwhite	16,428	31.5	5.2
Hispanic	15,183	25.7	4.5
Nonaged Females			
White	10,001	32.9	10.4
Nonwhite	7,461	53.7	21.3
Hispanic	7,087	50.4	23.4
Aged Males and Females			
White	10,363	95.9	44.8
Nonwhite	6,859	95.7	54.8
Hispanic	8,540	93.9	46.5
All Households	16,518	41.8	10.0

Source: Computations by authors from March 1979 Current Population Survey.

Note: Census money income is described in note 2. Cash transfers include Social Security, Railroad Retirement, Aid to Families with Dependent Children, Supplemental Security Income, General Assistance, Unemployment Compensation, Workers' Compensation, Government Employee Pensions, and Veterans' Pensions and Compensation. Heads of household 64 years of age or younger are nonaged; those 65 years or older are aged.

The variation across groups in the importance of transfers as a source of income is the basis for the conventional wisdom that minorities, especially female heads of households, are disproportionately dependent on public funds. However, Table 1 and the conventional wisdom fail to hold constant economic need. In the results that follow, we focus on the patterns of transfer receipt and their antipoverty effectiveness among households that are pretransfer poor.

Pretransfer Poor Households

An analysis of income poverty requires the specification of both a poverty threshold and an income concept. A household is considered "poor" if its income falls below the poverty threshold. Different poverty thresholds and income concepts convey different information about the nature and magnitude of the poverty problem. While we have used both absolute and relative thresholds in previous work (Danziger and Plotnick, 1982) we focus here on the official definition of poverty and on two income concepts--pretransfer income and Census money (posttransfer) income.

The federal government's official measure of poverty provides a set of income cutoffs adjusted for family size, age and sex of family head, number of children under age 18, and farm-nonfarm residence. The cutoffs provide an absolute measure of poverty which specifies in dollar terms minimally decent levels of consumption for households of different types. The cutoffs are adjusted each year by the change in the cost of living. For 1978, the poverty lines range from $2,650 for a single, aged female living on a farm to $11,038 for a two-parent family of seven

or more persons not living on a farm. The average threshold for a family of four for 1978 is $6,628. This paper analyzes poverty with the household as the unit of analysis.[4]

The official income concept, Census money income, is current money (but not in-kind) income received from all sources during the calendar year. We refer to the official income concept as posttransfer income. Posttransfer income does not distinguish between income derived from market sources (e.g., wages, property income) and income derived from government sources (e.g., Social Security, public assistance). As such, it fails to separate the market's antipoverty performance from the performance of government cash transfer programs. Our second income concept, pretransfer income, makes this distinction. Households that do not receive enough money income from market sources to raise themselves over the poverty lines constitute the pretransfer poor (a more exact title would be pre-government-transfer poor). Because pretransfer income for any household is always less than or equal to posttransfer income, this concept suggests a larger poverty population.[5]

Table 2 presents data on the dependence on cash transfers of pretransfer poor households. The incidence of pretransfer poverty was 25.5 percent for all households, ranging from 9.0 percent for those headed by nonaged white males to 77.9 percent for those headed by aged nonwhites. The higher incidences of poverty are found among minority, female-headed, and aged households. The pretransfer poor are highly dependent on cash transfers--80.3 percent received transfers, which constituted

Table 2

Dependence on Cash Transfers among Pretransfer Poor Households, 1978

Household Head	Incidence of Pretransfer Poverty	Percentage of Pretransfer Poor Households Receiving a Cash Transfer	Mean Transfer Received by Poor Recipient Households	Poor Transfers as a Percentage of Census Money Income, Pretransfer Poor Households	Percentage of Pretransfer Poor Households Receiving a Cash Welfare Transfer
Nonaged Males					
White	9.0%	59.6%	$5,501	62.7%	14.5%
Nonwhite	19.3	59.9	3,183	43.0	29.5
Hispanic	17.4	44.3	3,840	34.7	21.8
Nonaged Females					
White	29.6	61.3	3,358	60.1	31.5
Nonwhite	55.5	76.8	3,080	62.4	64.5
Hispanic	55.1	73.8	3,513	72.7	62.6
Aged Males and Females					
White	60.9	98.9	4,611	83.1	12.0
Nonwhite	77.9	97.9	3,745	83.3	40.5
Hispanic	72.2	98.5	4,171	82.5	41.9
All Pretransfer Poor Households	25.5	80.3	4,306	72.0	24.3

Source: Computations by authors from March 1979 Current Population Survey.

Note: Cash welfare transfers include Aid to Families with Dependent Children, Supplemental Security Income, and General Assistance.

72.0 percent of their posttransfer income. However, about 40 percent of all nonaged pretransfer poor households do not receive any cash transfers.

The differences in dependence on transfers between minority and majority, between female- and male-headed, and between aged and nonaged poor households are much smaller than those shown in Table 1, which did not standardize for economic needs. For example, 59.6 percent of poor households headed by nonaged white males received cash transfers, which accounted for 62.7 percent of their posttransfer income. Their probability of receipt was as large as that of nonaged nonwhite males and larger than that of nonaged Hispanic males. Both the dollar value of transfers and transfers as a percentage of Census income for nonaged white males was substantially larger than that of nonwhite or Hispanic males. For nonaged females as well, the racial differences in Table 1 are significantly reduced when poverty status is taken into account.

Further disaggregation of the data on dependence of cash transfers among the pretransfer poor reveals significant differences by race in the type of transfer received. For example, while about 60 percent of white and nonwhite poor households headed by nonaged males received transfers, 30 percent of nonwhites, but only 15 percent of whites, received welfare. Poor nonaged minority females were also twice as likely as similar whites to receive welfare, even though transfer recipiency was quite similar. While about two-thirds of such minority households received welfare, only one-third of white households received welfare.

Whether or not a household receives transfers--but not the type of transfer--is mainly a function of poverty, not race or ethnic origin.

The data presented in the next section emphasize that the differences in transfer receipt by sex and age are greater than those among whites, nonwhites, and Hispanics with the same household characteristics. However, there are racial differences in the size of the transfers received.

THE ANTIPOVERTY EFFECTIVENESS OF CASH TRANSFERS

Income transfer programs are diverse. Some aid only the aged; others, only families with children. The benefits provided by some are the same throughout the nation, while others vary by state. Some programs are available only to those with low incomes and low assets; others, to all who meet some non-income-tested criteria (e.g., retirement, death of a spouse). As a result, the probability that a poor household will receive an income transfer and the probability that it will be removed from poverty by transfers vary widely according to the household's characteristics.

In order to examine the antipoverty effectiveness of transfers, we estimated two sets of logistic regressions. In the first set, the sample included all households with pretransfer incomes less than the poverty line. The dependent variable took the value of one if the household received any cash transfer, and zero, otherwise. In the second set, the sample included only those households which were pretransfer poor and which received any cash transfer. The dependent variable took the value of one if the household was removed from poverty by the

transfers, and zero, otherwise. There were separate regressions for households in each of the white, nonwhite, and Hispanic age-sex groups shown in Table 2. (See Appendix).[6]

The independent variables in each regression were sets of dummies for the head's age, regional and metropolitan residence, education, household size, and marital, disability, and student status. Also included was the ratio of pretransfer income to the poverty line. The general pattern of results--but not the relative magnitudes of the coefficients--is similar across the demographic groups. For example, ceteris paribus, the probability of receiving transfers generally increases with family size, is highest in the Northeast region and lowest in the Southern region, is higher inside of metropolitan areas, and increases with age, disability, and student status. Not surprisingly, those among the poor who are closest to the poverty line are less likely to receive transfers. But if they do receive transfers, they are much more likely to escape poverty. The probability of receiving enough transfers to escape poverty is highest for households of two to four persons, those living in the Western region, those living in metropolitan areas, and those who are disabled, students, or over 55 years of age.

Nonaged Pretransfer Poor Households

Table 3 shows the predicted probabilities that are derived by evaluating the logistic coefficients for nonaged white, nonwhite, and

Table 3

Predicted Effects of Cash Transfer Programs for Nonaged Pretransfer Poor Households, by Region, 1978

Household Head[a]	Northeast	Northcentral	South	West
1. Predicted Probability of Receiving Transfers, Given that Household is Pretransfer Poor				
White Male	.597	.435	.356	.472
Nonwhite Male	.694	.748	.553	.635
Hispanic Male	.663	.459	.393	.480
White Female	.800	.775	.725	.788
Nonwhite Female	.808	.805	.615	.716
Hispanic Female	.871	.760	.567	.690
2. Predicted Probability of Being Removed from Poverty by Transfers, Given that Household is Pretransfer Poor and Receives Transfers				
White Male	.615	.670	.704	.741
Nonwhite Male	.334	.410	.242	.426
Hispanic Male	.570	.435	.450	.600
White Female	.513	.464	.332	.594
Nonwhite Female	.492	.450	.355	.747
Hispanic Female	.768	.596	.083	.777

[a]Household head is 35-54 years of age, lives in a metropolitan area, has completed 8-11 years of school, is not disabled or a student, has a family size of three or four and pretransfer income equal to .50 of the poverty line. Female head is divorced or separated; male head is married.

Source: Derived from logistic regressions estimated by authors from March 1979 Current Population Survey.

Hispanic households with the following characteristics--head is 35-54 years of age, lives in a metropolitan area, has completed 8-11 years of school, is not disabled or a student, has a family size of three or four and a ratio of pretransfer income to the poverty line of 0.50.[7] The table shows the variations in predicted probabilities for households headed by males and females living in the four Census regions. For the nonaged, these are generally the two most important determinants of transfer receipt and escape from poverty.

While previous studies have examined the antipoverty effectiveness of transfers (see Danziger, Haveman, and Plotnick, 1981, for a review), they have not controlled for household characteristics and they have not decomposed the probability of being taken out of poverty by transfers into the two conditional probabilities shown here.[8] Failure to do so masks offsetting differences in the two components between white and minority households. For example, in each region, pretransfer poor households headed by white males are less likely to receive transfers but more likely to be removed from poverty than are minority males.[9] Because we have controlled for pretransfer income as well as for personal characteristics, these results can not be attributed to the differential incidences of pretransfer poverty shown in Table 2. Rather, white transfer recipients receive larger amounts because they are more likely to receive social insurance (e.g., social security or unemployment compensation) and less likely to receive welfare than minority recipients, and social insurance benefits are generally higher than welfare benefits. In addition, because social insurance

payments are positively related to past earnings, white recipients receive higher payments than minority recipients with the same current income due to higher past earnings.

Male- and female-headed pretransfer poor households are about equally likely to receive social insurance benefits. Many pretransfer poor households headed by women qualify for Aid to Families with Dependent Children (AFDC), but few poor male households are eligible. As a result, holding race constant, poor female household heads are more likely than male heads to receive any transfers. The racial differences for female heads are small, except in the South, where the predicted probabilities for nonwhite and Hispanic households are sharply lower.

White female-headed households, however, are less likely than their male counterparts to be taken out of poverty in each region. Nonwhite and Hispanic female heads are more likely than their male counterparts to be removed from poverty (the only exception is for female-headed Hispanic households in the South, where the result may be spurious because the cell size is only 38).

In 10 of the 12 rows of Table 3, the lowest probabilities are found in the South. This reflects the well-known geographic disparities in welfare benefits and unemployment compensation. Also, wage-related payments in programs that provide equal benefits throughout the nation are lower in the lower-income Southern region. It is likely that if the Reagan administration succeeds in providing states with greater discretion in transfer programs, the regional disparities shown in Table 3 would widen.

Despite the extent to which the nonaged pretransfer poor rely on transfers, a large portion do not receive cash benefits that are large enough to remove them from poverty. This is particularly true for nonwhite households, for whom seven of the eight predicted probabilities of escape given receipt are below .50. For whites, in contrast, six of the eight predictions exceed .50. The unconditional probability of a pretransfer poor household being taken out of poverty by transfers can be computed by multiplying the two conditional probabilities in the table. These probabilities are only about .30 for male heads and about .40 for female heads with the characteristics noted in the table.[10]

Aged Pretransfer Poor Households

Table 4 presents a similar analysis for aged couples and widows. Because, as Table 2 shows, over 95 percent of the aged pretransfer poor received transfers, we did not estimate probability of receipt regressions. Instead, we report the sample means by region. Also, because the aged poor have lower pretransfer incomes than the nonaged poor, the predicted probability of escape given receipt refers to a household with a pre-transfer income equal to .25 of the poverty line.

The most striking contrast in Table 4 is not found in comparisons among the various aged groups, but in the fact that every probability of escape in the table is much higher than the corresponding probability for the nonaged in Table 3. These differences exist because the aged, who constituted 48 percent of all pretransfer poor households, received

Table 4

Predicted Effects of Cash Transfer Programs for Aged Pretransfer Poor Households, by Region, 1978

Household Head[a]	Northeast	Northcentral	South	West
1. Mean Probability of Receiving Transfers, Given that Household is Pretransfer Poor[b]				
Aged Couple				
White	.992	.990	.992	.986
Nonwhite	.959	.982	.981	.934
Hispanic	1.000	1.000	.970	1.000
Aged Widow				
White	.990	.986	.993	.985
Nonwhite	1.000	1.000	.977	.983
Hispanic	1.000	.915	1.000	.971
2. Predicted Probability of Being Removed from Poverty by Transfers, Given that Household is Pretransfer Poor and Receives Transfers				
Aged Couple				
White	.996	.993	.993	.996
Nonwhite	.976	.979	.972	.992
Hispanic	.885	.919	.773	.888
Aged Widow				
White	.978	.970	.972	.992
Nonwhite	.849	.743	.682	.960
Hispanic	.976	.927	.964	.979

[a]Household head is 65-71 years of age, lives in a metropolitan area, has completed 8-11 years of school, is not disabled, has pretransfer income equal to .25 of the poverty line. Family size is two for couples; one, for widows.

[b]Because probability of receipt of transfers was so high, regressions were not estimated. These are the sample means for all aged persons by region; they do not hold detailed characteristics constant.

Source: The results in panel 2 are derived from logistic regressions estimated by authors from March 1979 Current Population Survey.

62 percent of the pretransfer poor's total cash transfers. The cash transfer benefits of an aged pretransfer poor recipient averaged $4479, while the average for a nonaged recipient, with more household members to support, was $4028. Almost all the elderly received transfers, and over 90 percent of these received enough to escape poverty. The regional differences are small, except for nonwhite widows. This reflects the fact that in addition to their Social Security benefits, the poor elderly are eligible for Supplemental Security Income (SSI), a negative income tax with a federally-specified minimum benefit.

Comparisons Across Demographic Groups

Table 5 provides a rough comparison of the antipoverty effectiveness of cash transfers across demographic groups.[11] In each column, the incidence of poverty is indexed at 1.00 for nonaged white males, the group with the lowest pretransfer and posttransfer incidences. Each of the other cells presents the ratio of the poverty incidence of another group to this benchmark. For example, Table 2 shows the pretransfer incidence of nonaged nonwhite males to be 2.14 times that of nonaged white males (19.3/9.0 = 2.14). This is the entry in column 1 for nonaged nonwhite males. Holding age and sex of head constant, the pretransfer and posttransfer incidences for nonwhites and Hispanics are almost equal.

The comparisons are summarized in column 3. Any number below 1.00 means that the antipoverty effectiveness of transfers was greater for that group than for nonaged white males. Except for the aged, transfers

Table 5

Relative Differences in Poverty Incidences Among Households by Demographic Group, 1978

Household Head	(1) Pretransfer Incidence	(2) Posttransfer Incidence	(3) Ratio of Column 2 to Column 1
Nonaged Males			
White	1.00	1.00	1.00
Nonwhite	2.14	2.65	1.24
Hispanic	1.93	2.50	1.30
Nonaged Females			
White	3.29	3.96	1.20
Nonwhite	6.17	8.45	1.37
Hispanic	6.12	8.45	1.38
Aged Males and Females			
White	6.77	2.61	0.39
Nonwhite	8.66	6.75	0.78
Hispanic	8.02	5.32	0.66

Source: Computations by authors from March 1979 Current Population Survey.

Note: Column (2)/Column (1) for any demographic group is equal to:

$$\left(\frac{\text{Posttransfer incidence i}}{\text{Posttransfer incidence nonaged white males}}\right) / \left(\frac{\text{Pretransfer incidence i}}{\text{Pretransfer incidence nonaged white males}}\right).$$

This can be rewritten as $\left(\frac{\text{postransfer}}{\text{pretransfer}}\right)_i / \left(\frac{\text{posttransfer}}{\text{pretransfer}}\right)$ nonaged white males. Then, this ratio will be less than one only if the difference between post-transfer and pretransfer poverty is greater for group i than for nonaged white males.

had their largest impact on poor nonaged white males. This is hardly the group usually considered to constitute "the transfer class." The largest numbers in column 3, representing the smallest antipoverty impacts, are those for female household heads. Transfers for the pretransfer poor are relatively more effective for majority males than minority males; for majority females, than minority females; and for majority aged, than minority aged. As suggested above, most of these differences are attributable to the larger size of social insurance benefits relative to welfare benefits, and to the larger social insurance benefits of those with higher past earnings.

SUMMARY

While the number of transfer recipients and the average benefit have grown in recent years, significant gaps in coverage and inadequacies in benefits remain. While almost all of the aged poor received transfers, almost 40 percent of nonaged poor households received none. And the probability of receiving enough aid to escape poverty is much lower among the nonaged than the aged.

Contrary to conventional wisdom, the receipt of transfers is quite similar regardless of race, once economic need has been taken into account. A greater percentage of all minority households receive transfers because they are more likely to be pretransfer poor. However, among the poor, whites are more likely than minorities to be removed from poverty by transfers because they receive larger amounts on average.

Further analysis of the differences among white, nonwhite, and Hispanic households in the antipoverty effectiveness of transfers should address these issues: (1) changes over time; (2) a decomposition of the total effects shown here into a part due to social insurance and a part due to welfare programs; (3) the extent to which in-kind transfers reduce or widen differentials among groups; (4) the incorporation of labor supply effects and other behavioral responses that cause the "true" antipoverty effectiveness to differ from the "measured" effectiveness.

Appendix

The following appendix tables present the regression results that were used to derive the data in Tables 3 and 4. For each of the six non-aged groups, two regressions were estimated--the probability of transfer receipt given that a household was pretransfer poor, and the probability that a pretransfer poor transfer recipient received enough transfer income to escape poverty. For the nonaged, only the second regression was estimated, since the probability of transfer receipt was so close to 1.0. Separate regressions were not estimated for aged Hispanic females because there were too few observations. The data on the probabilities of escaping poverty for this group were derived by re-estimating the equation from Table A6 with a dummy variable for those over 65 years of age.

Table A.1
Logistic Regression Results, Nonaged White Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-.65 (3.65)	-.18 (0.77)
	Two	-.11 (0.55)	.36 (1.47)
	Five +	.21 (1.15)	-1.36 (5.32)
Region:	Northcentral	-.65 (3.16)	.24 (0.98)
	South	-.99 (5.15)	.40 (1.75)
	West	-.51 (2.68)	.58 (2.43)
SMSA Resident		.09 (0.70)	.07 (.043)
Age:	Under 25	-1.04 (4.85)	-1.06 (2.97)
	25-34	-.36 (2.19)	-.71 (2.76)
	55-61	.94 (4.54)	.72 (3.02)
	62-64	2.60 (8.11)	.75 (2.93)
Education:	Under 8	-.05 (0.25)	-1.02 (4.56)
	8-11	-.15 (0.81)	-.75 (3.09)
	13-15	.15 (0.77)	-.19 (0.67)
	16 +	-.80 (3.37)	-.12 (0.30)
Disabled		2.39(12.81)	.32 (1.79)
Student		.70 (2.98)	.54 (1.30)
White Hispanic		-.38 (1.98)	-.23 (0.83)
(Pretransfer Income/ Poverty Line)		-.08 (0.72)	2.97 (9.98)
Constant		.49 (2.11)	-.35 (1.09)
Number of Observations		1618	916
Mean of Dependent Variable		.566	.607
Log of the Likelihood Function		-766.5	-465.9

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disabled, not Hispanic, not in school last year, and married; t-statistics appear in parentheses.

Table A.2
Logistic Regression Results, Nonaged Nonwhite Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-.45 (1.64)	-.58 (1.50)
	Two	-.43 (1.13)	.81 (1.62)
	Five +	-.18 (0.62)	-1.13 (2.71)
Region:	Northcentral	.27 (0.79)	.33 (0.70)
	South	-.61 (2.01)	-.45 (1.00)
	West	-.27 (0.84)	.39 (0.82)
SMSA Resident		.11 (0.55)	.71 (2.25)
Age:	Under 25	-.98 (3.35)	-.78 (1.37)
	25-34	-.32 (1.25)	-.13 (0.29)
	55-61	.34 (1.14)	1.38 (3.54)
	62-64	1.13 (2.38)	1.45 (3.14)
Education:	Under 8	.44 (1.68)	-.44 (1.16)
	8-11	.11 (0.42)	-.81 (1.88)
	13-15	.18 (0.52)	.79 (1.34)
	16 +	-1.19 (2.28)	.34 (0.38)
Disabled		1.11 (4.50)	1.29 (3.71)
Student		-.62 (1.88)	1.63 (2.34)
Non-white Hispanic		-.01 (0.02)	-1.42 (1.38)
(Pretransfer Income/ Poverty Line)		-1.25 (4.30)	5.07 (8.81)
Constant		1.22 (2.66)	-3.12 (4.25)
Number of Observations		659	386
Mean of Dependent Variable		.586	.383
Log of the Likelihood Function		-352.9	-170.1

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disable, not Hispanic, not in school last year, and married; t-statistics appear in parentheses.

Table A.3
Logistic Regression Results, Nonaged Hispanic Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-.94 (2.68)	.74 (1.35)
	Two	.15 (0.37)	1.26 (2.24)
	Five +	-.10 (0.31)	-1.39 (2.80)
Region:	Northcentral	-.84 (1.71)	-.55 (0.67)
	South	-1.11 (3.21)	-.48 (0.96)
	West	-.75 (2.26)	.12 (0.26)
SMSA Resident		-.03 (0.11)	.15 (0.37)
Age:	Under 25	-1.18 (2.95)	-2.38 (3.15)
	25-34	-.21 (0.80)	-.97 (2.00)
	55-61	1.68 (4.03)[a]	.55 (1.20)
	62-64	1.68 (4.03)[a]	-.10 (0.14)
Education:	Under 8	-.67 (2.11)	-.69 (1.35)
	8-11	-.33 (0.91)	-.89 (1.51)
	13-15	.01 (0.01)	-.48 (0.65)[b]
	16 +	-1.27 (1.32)	-.48 (0.65)[b]
Disabled		1.82 (5.44)	.61 (1.62)
Student		.19 (0.42)	.23 (0.28)
Nonwhite Hispanic		-.09 (0.14)	-.92 (0.91)
(Pretransfer Income/ Poverty Line)		-.84 (2.34)	4.01 (6.18)
Constant		1.45 (2.69)	-.98 (1.22)
Number of Observations		487	228
Mean of Dependent Variable		.468	.553
Log of the Likelihood Function		-249.0	-112.5

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disabled, not non-white, not in school last year, and married; t-statistics appear in parentheses.
[a]Category was 55-64 due to small sample size.
[b]Category was 13 years or more due to small sample size.

Table A.4
Logistic Regression Results, Nonaged White Females

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-2.27(10.10)	.01 (0.05)
	Two	-.34 (1.51)	.36 (1.28)
	Five +	-.02 (0.07)	-.46 (1.18)
Region:	Northcentral	.15 (0.75)	-.20 (0.76)
	South	-.42 (2.04)	-.75 (2.79)
	West	-.08 (0.39)	.33 (1.33)
SMSA Resident		.13 (0.86)	-.03 (0.15)
Age:	Under 25	-.49 (2.08)	-1.92 (4.92)
	25-34	-.49 (2.39)	-1.11 (3.73)
	55-61	.32 (1.32)	.14 (0.48)
	62-64	2.94 (7.01)	.11 (0.34)
Education:	Under 8	.44 (2.11)	-.70 (2.85)
	8-11	.17 (0.90)	-.30 (1.23)
	13-15	-.12 (0.52)	-.15 (0.44)
	16 +	.09 (0.29)	.37 (0.81)
Disabled		1.15 (5.33)	.22 (0.96)
Student		-.71 (2.69)	.93 (1.92)
White Hispanic		.01 (0.05)	-.25 (0.90)
(Pretransfer Income/ Poverty Line)		-1.27 (5.74)	3.92(11.35)
Never Married		.50 (2.29)	.57 (1.88)
Widowed		.87 (3.96)	1.45 (6.13)
Constant		1.73 (6.33)	-1.58 (4.56)
Number of Observations		1376	865
Mean of Dependent Variable		.629	.358
Log of the Likelihood Function		-645.1	-388.8

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disabled, not Hispanic, not in school last year, and divorced or separated; t-statistics appear in parentheses.

Table A.5
Logistic Regression Results, Nonaged Nonwhite Females

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-2.46(10.27)	.29 (0.94)
	Two	-.29 (1.09)	-.07 (0.23)
	Five +	.04 (0.15)	-1.08 (3.47)
Region:	Northcentral	-.02 (0.06)	-.17 (0.48)
	South	-.97 (3.78)	-.57 (1.76)
	West	-.51 (1.62)	1.12 (3.20)
SMSA Resident		-.003(0.02)	.08 (0.32)
Age:	Under 25	.11 (0.38)	-.73 (1.60)
	25-34	.13 (0.56)	-.64 (2.03)
	55-61	.0004(0.001)	-.22 (0.64)
	62-64	1.51 (2.73)	-.11 (0.25)
Education:	Under 8	.43 (1.71)	-.15 (0.47)
	8-11	.14 (0.68)	.07 (0.23)
	13-15	.10 (0.34)	.27 (0.70)
	16 +	-.74 (1.19)	-.45 (0.45)
Disabled		1.39 (5.26)	.32 (1.28)
Student		-.65 (2.08)	1.00 (1.94)
Nonwhite Hispanic		.54 (0.57)	.94 (1.14)
(Pretransfer Income/ Poverty Line)		-2.40 (8.90)	5.264(12.47)
Never Married		.45 (2.12)	-.50 (1.51)
Widowed		1.27 (4.45)	1.57 (5.63)
Constant		2.49 (6.50)	-2.81 (5.83)
Number of Observations		1219	933
Mean of Dependent Variable		.765	.200
Log of the Likelihood Function		-479.5	-296.7

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disabled, not Hispanic, not in school last year, and divorced or separated; t-statistics appear in parentheses.

Table A.6
Logistic Regression Results, Nonaged Hispanic Females

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One	-3.43 (8.32)	-.65 (0.81)
	Two	-1.29 (3.57)	-.73 (1.23)
	Five +	-.02 (0.05)	-1.85 (2.30)
Region:	Northcentral	-.76 (1.29)	-.79 (0.69)
	South	-1.65 (4.12)	-3.57 (2.70)
	West	-1.09 (3.06)	.08 (0.14)
SMSA Resident		.45 (1.34)	.42 (0.59)
Age:	Under 25	-.62 (1.39)	-2.75 (2.81)
	25-34	-.53 (1.48)	-2.12 (3.19)
	55-61	.56 (1.10)	2.29 (3.17)
	62-64	.07 (0.10)	.53 (0.34)
Education:	Under 8	-.21 (0.57)	-1.85 (3.10)
	8-11	-.24 (0.60)	-1.04 (1.66)
	13-15	-.07 (0.12)	-2.05 (1.77)[a]
	16 +	-2.65 (1.64)	-2.05 (1.77)[a]
Disabled		1.79 (3.89)	.96 (1.58)
Student		-.34 (0.63)	2.52 (2.53)
Nonwhite Hispanic		.11 (0.12)	.86 (0.91)
(Pretransfer Income/ Poverty Line)		-3.24 (6.53)	5.60 (5.13)
Never Married		.40 (1.13)	.16 (0.29)
Widowed		-1.81 (4.39)	.49 (0.71)
Constant		3.32 (5.33)	-.99 (1.05)
Number of Observations		494	309
Mean of Dependent Variable		.626	.159
Log of the Likelihood Function		-186.7	-73.4

Notes: Constant refers to family size of three or four, residence in the Northeast region and outside of a metropolitan area, age 35-54, with 12 years of schooling completed, not disabled, not nonwhite, not in school last year, and divorced or separated; t-statistics appear in parentheses.
[a]Category was 13 years or more due to small sample size.

Table A.7
Logistic Regression Results, Aged White Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty[a]	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One		-1.38 (3.42)
	Two		-.51 (1.32)
	Five +		-3.56 (4.07)
Region:	Northcentral		-.42 (1.59)
	South		-.52 (2.17)
	West		.003(0.01)
SMSA Resident			1.00 (5.73)
Age:	Over 72		.16 (0.95)
Education:	Under 8		-.33 (1.31)
	8-11		-.04 (0.14)
	13-15		.06 (0.14)
	16 +		.40 (0.82)
Disabled			-.21 (1.10)
White Hispanic			-.76 (2.44)
(Pretransfer Income/ Poverty Line)			7.11 (9.78)
Constant			1.53 (3.12)
Number of Observations			1533
Mean of Dependent Variable			.830
Log of the Likelihood Function			-491.4

Notes: Constant refers to family size of two residence in the Northeast region and outside of a metropolitan area, age 65-71, with 12 years of schooling completed, not disabled, not Hispanic, and married; t-statistics appear in parentheses.
[a]Equation was not estimated because sample mean was so close to 1.00.

Table A.8
Logistic Regression Results, Aged Nonwhite Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty[a]	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One		.16 (0.40)
	Two		1.03 (2.59)
	Five +		-.78 (1.23)
Region:	Northcentral		.12 (0.25)
	South		-.17 (0.39)
	West		1.14 (2.13)
SMSA Resident			.78 (2.74)
Age:	Over 72		.29 (1.10)
Education:	Under 8		-.38 (0.68)
	8-11		.56 (0.81)
	13-15		.86 (0.84)
	16 +		.92 (0.72)
Disabled			-.33 (1.20)
Nonwhite Hispanic			.76 (0.60)
(Pretransfer Income/ Poverty Line)			5.94 (6.17)
Constant			-1.51 (1.87)
Number of Observations		393	
Mean of Dependent Variable		.641	
Log of the Likelihood Function		-194.1	

Notes : Constant refers to family size of two, residence in the Northeast region and outside of a metropolitan area, age 65-71, with 12 years of schooling completed, not disabled, not Hispanic, and married; t-statistics appear in parentheses.
[a]Equation was not estimated because sample mean was so close to 1.00.

Table A.9
Logistic Regression Results, Aged Hispanic Males

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty[a]	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One		-.26 (0.47)
	Two		-.11 (0.22)
	Five +		1.79 (1.82)
Region:	Northcentral		-.39 (0.34)
	South		.82 (1.30)
	West		-.03 (0.05)
SMSA Resident			-1.53 (3.45)
Age:	Over 72		.49 (1.28)
Education:	Under 8		.20 (0.24)
	8-11		.73 (0.68)
	13-15		-1.07 (0.72)[b]
	16 +		-1.07 (0.72)[b]
Disabled			.11 (0.27)
Nonwhite Hispanic			.35 (0.27)
(Pretransfer Income/ Poverty Line)			-5.89 (4.46)
Constant			.32 (0.26)
Number of Observations			204
Mean of Dependent Variable			.338
Log of the Likelihood Function			-95.8

Notes: Constant refers to family size of two, residence in the Northeast region and outside of a metropolitan area, age 65-71, with 12 years of schooling completed, not disabled, not non-white, and married; t-statistics appear in parentheses.
[a]Equation was not estimated because sample mean was so close to 1.00.
[b]Category was 13 years or more due to small sample size.

Table A.10
Logistic Regression Results, Aged White Females

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty[a]	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One		-.24 (0.38)
	Two		1.02 (1.51)
	Five +		-1.76 (1.53)
Region:	Northcentral		-.39 (2.11)
	South		-.58 (3.11)
	West		-.03 (0.14)
SMSA Resident			.87 (6.42)
Age:	Over 72		-.22 (1.52)
Education:	Under 8		-.93 (5.04)
	8-11		-.43 (1.95)
	13-15		.36 (1.09)
	16 +		.88 (2.02)
Disabled			-.37 (2.18)
White Hispanic			-.56 (1.63)
(Pretransfer Income/ Poverty Line)			6.13(12.57)
Never Married			.59 (1.64)
Widowed			1.05 (4.11)
Constant			-.33 (0.48)
Number of Observations		1547	
Mean of Dependent Variable		.664	
Log of the Likelihood Function		-705.1	

Notes: Constant refers to family size of one, residence in the Northeast region and outside of a metropolitan area, age 65-71, with 12 years of schooling completed, not disabled, not Hispanic, and divorced or separated; t-statistics appear in parentheses.
[a]Equation was not estimated because sample mean was so close to 1.00.

Table A.11
Logistic Regression Results, Aged Nonwhite Females

		Predicted Probability of Receiving Transfers, Given Pretransfer Poverty[a]	Predicted Probability of Being Taken Out of Poverty by Transfers, Given Pretransfer Poverty and that Transfers are Received
Family Size:	One		-.68 (1.35)
	Two		.68 (1.19)
	Five +		-2.32 (2.65)
Region:	Northcentral		-.66 (1.41)
	South		-.96 (2.31)
	West		1.45 (3.05)
SMSA Resident			.81 (2.56)
Age:	Over 72		-.56 (2.08)
Education:	Under 8		-.63 (1.59)
	8-11		-.09 (0.18)
	13-15		-.32 (0.37)
	16 +		1.15 (1.35)
Disabled			.51 (1.77)
Nonwhite Hispanic			b
(Pretransfer Income/ Poverty Line)			7.61 (7.63)
Never Married			1.10 (1.59)
Widowed			1.12 (2.66)
Constant			-1.32 (1.64)
Number of Observations			426
Mean of Dependent Variable			.404
Log of the Likelihood Function			-186.4

Notes: Constant refers to family size of one, residence in the Northeast region and outside of a metropolitan area, age 65-71, with 12 years of schooling completed, not disabled, not Hispanic, and divorced or separated; t-statistics appear in parentheses.
[a]Equation was not estimated because sample was so close to 1.00.
[b]The coefficient was not estimated because sample size was only 3.

NOTES

[1]The computer tapes from the March 1979 Current Population Survey (CPS) are the source for the data presented in this paper. The survey reports number of households as of March 1979, but Census money income for 1978.

[2]Census money income is defined as money income received during the calendar year as wages and salaries, net income from self-employment, property income (for example, interest, dividends, and net rental incomes), government cash transfers from the programs listed in Table 1, and other forms of cash income (for example, private pensions and alimony). The 1979 CPS does not include government or private benefits in-kind such as Medicare, food stamps, housing assistance, or employer-provided health insurance. Also, incomes are known to be underreported.

[3]The omission of in-kind transfers biases downward estimates of transfer recipiency and biases upward estimates of the incidence of posttransfer poverty. Plotnick and Smeeding (1979) show that in 1974 an additional 2 to 3 percent of the population received in-kind transfers for food, housing, and/or medical care, but did not receive cash transfers. This suggests that the percentage receiving either a cash or in-kind transfer was probably in excess of 45 percent by 1978.

Because of the way the data are reported, public employee pensions are counted as a government transfer, like social security retirement benefits, not as a component of pretransfer income, like private pensions.

[4]For an analysis of the trend in poverty among persons, see Danziger and Plotnick (1982).

[5]The antipoverty effect of transfers is generally measured by comparing pretransfer and posttransfer incomes. Pretransfer income is defined by subtracting government transfers from posttransfer income. This definition assumes that transfers elicit no behavioral responses which would cause income without transfers to deviate from observed pretransfer income. However, transfers do induce labor supply reductions so that recipients' net incomes are not increased by the full amount of the transfer. For example, consider an individual who earns $3000. After the passage of a public assistance program, with an income guarantee of $3000 and a tax rate of 50%, the person reduces hours of work and earns $2500. A transfer of $1750 is now received and total income is $4250, but the individual's final income is only $1250 higher. Because pretransfer income in the absence of transfers is not observed, most studies measure the redistributive effect as the difference between pretransfer and posttransfer income ($4250-$2500), not as the increase in final income. Thus, true pretransfer income is likely to be higher than measured pretransfer income. Pre-post comparisons, therefore, like the ones made here, are likely to provide upper-bound estimates of antipoverty effects.

[6]There would have been 12 separate regressions for each of the two equations--three race x two age x two sex of head. Because over 95 percent of all aged households received transfers, we did not estimate

equations for their probability of receiving transfers.

[7]Because we have not computed the standard error associated with each point estimate, some of the differences in the probabilities may not be significant.

[8]Other studies have presented measures of the percentage of the pretransfer poor removed from poverty by transfers. This can be decomposed as follows: $\frac{NE}{TP} = \frac{NR}{TP} \cdot \frac{NE}{NR}$, where NE is the number of pretransfer poor who escape poverty because of transfers; TP is the number of pretransfer poor; and NR is the number of pretransfer poor who receive transfers. Plotnick and Skidmore (1975) did present a multivariate analysis of NE/TP, but not of its components.

[9]According to Smeeding (1982), if in-kind transfers for food, housing, and medical care were counted as income, the incidence of poverty would be about sixty percent of that shown by the official measure. Thus the probabilities of receiving transfers and the probabilities of being removed from poverty would be higher. However, the differences in poverty by race and region would probably remain.

[10]The actual unconditional probability of a pretransfer poor household being taken out of poverty depends on the actual distribution of household characteristics and the pretransfer incomes of the various groups. These actual probabilities are .378, .232, and .197 for white, nonwhite, and Hispanic nonaged males, and .254, .148, and .142 for white, nonwhite, and Hispanic families. While all of these are below those

shown for the benchmark households, the pattern is similar--the probabilities are higher for males than for females, and for whites than minorities.

[11]This is only a rough comparison because the table is based on the reported data and is not derived from the regressions which standardize for the varying personal characteristics of the pretransfer poor of each group.

References

Danziger, S., Haveman, R., and Plotnick, R. 1981. How income transfer programs affect work, savings, and the income distribution: A critical review. Journal of Economic Literature, 19 (September): 975-1028.

Danziger, S. and Plotnick, R. 1982. The War on Income Poverty: Achievements and Failures. In P. Sommers, ed., Welfare Reform in America (Boston: Kluwer Nijhoff), also Reprint, #446 Institute for Research on Poverty, University of Wisconsin-Madison.

Plotnick, R. and Smeeding, T. 1979. Poverty and income transfers: Past trends and future prospects. Public Policy, 27 (Summer): 255-272.

Plotnick, R. and Skidmore, F. 1975. Progress against poverty. New York: Academic Press.

Smeeding, T. 1982. Alternative methods for valuing in-kind transfer benefits: Their impact on poverty and income status. Census Bureau Technical Paper. Washington, D.C.: U.S. Government Printing Office.