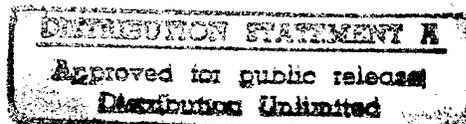


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Displace Familial Assistance?**

Robert F. Schoeni

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**DOES AID TO FAMILIES WITH DEPENDENT CHILDREN
DISPLACE FAMILIAL ASSISTANCE?**

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DOES AID TO FAMILIES WITH DEPENDENT CHILDREN DISPLACE FAMILIAL ASSISTANCE?

Abstract

Proponents of reducing welfare assistance argue that the family would respond to the increased need of single mothers by providing more assistance if the state lowered welfare benefits. The objective of this study is to estimate whether income received from AFDC displaces private familial assistance in the form of cash and time help. It is found that displacement is precisely estimated among blacks but not whites. The estimates for blacks suggest that annual familial cash received is reduced by 17 cents per dollar increase in AFDC benefits, and time help received is reduced by 75 hours per year per \$1,000 increase in AFDC benefits. As a result, family members who would have given greater amounts of assistance under a less generous welfare program now, themselves, have greater income equal to the amount they otherwise would have transferred. Although these may not be the people to whom the program is directly attempting to assist, it is found that they too are quite poor and needy.

Does Aid to Families with Dependent Children Displace Familial Assistance?

Introduction

It has been claimed that the expansion of the welfare system since the 1960s has had a deleterious effect on the family. Specifically, it has been asserted that the Aid to Families with Dependent Children (AFDC) program has caused the family to degenerate by providing a disincentive to marry (Hutchens, 1979), keeping women out of the labor market, and causing poor women to have more children than they otherwise would (Plotnick, 1990)¹.

A less frequently heard criticism of AFDC, and of public transfer programs more generally, is that they may reduce the amount of privately provided familial assistance that individuals on welfare would have otherwise received; the state replaces the family as provider of economic assistance. Proponents of reducing welfare assistance argue that the family would respond to the increased need of single mothers by providing more assistance. The objective of this study is to investigate the relationship between these two sources of assistance -- public assistance and familial assistance. Specifically, the study estimates the extent to which income received from AFDC, which is the largest cash assistance welfare program, displaces private familial assistance in the form of cash and time help.

The paper proceeds as follows. We begin with a brief discussion of theoretical models of familial transfers that predict displacement as well as previous empirical studies that have examined this question. After discussing the data and the AFDC program, the relative magnitude of support received by women from their families and the state is analyzed. The effect of AFDC on the amount of familial assistance received (i.e., money and time help) is then estimated. A final section interprets and summarizes the findings.

Models of Familial Transfers, and Previous Empirical Studies of Displacement

Theoretical Models

Several models of private transfer behavior have been posed, including altruism, exchange, and "warm glow." The altruism model (Becker, 1974; Barro, 1974) states, in terms of parent-child relations, that the parent's well-being is directly related to the well-being of their child ($U_p = U_p(X_p, U_c)$, where X_p are goods consumed by the parent and U_c is the utility of the child). In its simplest form, it predicts substantial crowding out, even full displacement.

¹However, as Plotnick states, his estimates are not very stable.

The model has been extended by Andreoni (1989) to include simultaneous "warm glow" giving. That is, parents not only care about the well-being of their children, they care about the amount of gifts they give their children. As he shows, this extension leads to predictions of less than complete crowding out. Moreover, if the behavior is only motivated by warm glow, then the amount of the transfer given to the child is independent of the characteristics of the child. This simplistic version of the warm glow model predicts that no displacement would take place.

The majority of the work on the altruism model, if not all of the work, has been couched in terms of financial transfers between individuals. However, evidence from several recent surveys, including the one analyzed here, suggests that there are substantial amounts of assistance given in other forms, such as time help, in-kind gifts, and housing. Broadening these models to include non-financial assistance may provide some useful theoretical insights.² One model which does incorporate time help explicitly is the exchange model. This has been the most widely analyzed alternative to altruism (Kotlikoff and Spivak, 1981; Cox, 1987; Bernheim et al, 1985; Cox and Rank, 1992; Cox and Jakubson, 1994). The basic presumption is that, using the parent-child notation again, children provide something to their parents, such as assistance in old age, a sympathetic ear, or contemporaneous help in household production, and in return parents give their children cash. The parent-child relationship can be viewed as a market transaction where the parent demands services, which presumably only the child can provide,³ and the child provides services in return for remuneration. As a result, the relationship between the characteristics of the children (e.g. the value of their time, their income) and the amount of assistance they receive from their parents is a function of the elasticities of supply and demand for the services provided by the child. The prediction that has received most attention, and that was elucidated by Cox (1987), is that the income of the child may actually be positively related to the amount of assistance the child receives. There has been a series of papers that have estimated this relationship, with mixed findings (Cox, 1987; Cox and Rank, 1992; Altonji et al, 1996; Dunn, 1993; McGarry and Schoeni, 1995).

These models treat income from all sources identically; however, this constraint can be loosened, which will be done in the empirical analyses below. Parents may be less responsive

²For example, one may include time help by assuming that the hours received augment the child's budget constraint. Additionally, parents may derive direct utility out of the giving of, for example, care for grandchildren. This would be equivalent to Andreoni's warm glow, and it may differ by form of assistance. That is, parents may get more direct satisfaction out of providing child care for their grandchild as opposed to giving their child cash that would be used to purchase a baby-sitter.

³Or for which there are no close market substitutes.

to changes in their daughter's labor market earnings than their daughter's welfare income because parents care about the leisure of their children, which may decline as the child's labor market earnings rise. Or there may be stigma associated with receiving AFDC that would cause it to affect behavior differently than other income (Moffitt, 1983). For example, parents may prefer that their daughter not participate in AFDC, and to provide an incentive to remain off of the program, they may threaten to reduce assistance to her if she does participate. For any of these reasons, and others, the effects of income from welfare may be different from the effects of income from other sources.

In sum, the models that have been developed to date provide a wide range of predictions in terms of displacement, from full crowding out to no displacement, and even "crowding in," under the exchange model. Therefore, we must turn to empirical analyses because the predictions of the theoretical models are ambiguous.

Previous Empirical Studies

There have been a handful of studies that have empirically examined the relationship between private familial assistance and government transfers.⁴ Probably the first study to do so was Lampman and Smeeding (1983). They integrate data from several different sources to derive national level estimates of interfamily and government transfers. They find that interhousehold transfers were greater than governmental transfers 40 to 60 years ago, but since then this has reversed. Their estimates show that total personal income derived from private transfers fell from 6.5 percent to 5.0 percent between 1935 and 1980. For the same period, government transfers increased from 2.8 percent to 11.2 percent. Lampman and Smeeding conclude that, "We assume that the growth in government cash and in-kind transfers explains much of this decline in interfamily transfers"(1983:p.59).

Rosenzweig and Wolpin (1994) use the NLS to examine the incidence of receipt of government transfers, financial transfers, and coresidence by young women. Specifying a multi-nomial logit with fixed-effects for receipt of the various combinations of the three forms

⁴Several related studies have examined the displacement of private charitable contributions using data reported to the Internal Revenue Service (IRS). The conclusion reached in most of these studies is that charitable contributions are indeed displaced by government expenditures. The conclusion of Brennan and Pincus (1983: p. 34) accurately depicts these findings: "The immediate analytic presumption, therefore, is that over a significant range, publicly provided redistribution is offset by corresponding reductions in private transfers...it would be somewhat surprising if public transfers did not substitute for private transfers to some extent."

of support, they find that the amount of AFDC received by low-earning young women modestly reduces the probability of receipt of familial transfers and coresidence.

Several related studies have examined the effects of AFDC generosity on living arrangements of single mothers. Ellwood and Bane (1985) found that single mothers living in states with more generous AFDC benefits were more likely to live independently relative to those single mothers in low benefit states. Hutchens, Jakubson and Schwartz (1988) did not find this result, but they did determine that the AFDC subfamily restriction, which reduces the amount of the benefit for those residing with parents, was associated with more independent living, although the effect was small. Hao (1994) examines coresidence and AFDC participation using the NLSY. She finds that single mothers who live in states with more generous AFDC benefits are more likely to participate in the program and less likely to coreside with kin.

Cox and Jakubson (1994), using the President's Commission on Pension Policy (PCPP) data set, examine the displacement effects of AFDC and other programs on familial cash assistance. Recognizing the potential endogeneity of AFDC, they instrument for AFDC using the variation in benefit generosity across states, as is done here. They find some, though limited, support for displacement by AFDC. A one standard deviation increase in AFDC benefits in 1979 (\$292) decreases the probability of receiving familial cash assistance by 4.6 percentage points. In their sample, 25.9 percent received familial transfers. However, they do not find that the amount of familial assistance is influenced by AFDC benefits. Using the National Survey of Families and Households (NSFH), MacDonald (1990) also examines the effects of government transfer income on cash assistance received from family members. Instrumenting for government transfers, MacDonald does not find precisely estimated effects. (See footnote 9 for a discussion of the deficiencies of the NSFH for examining displacement.)

The analysis conducted here is unique in that it examines time assistance as well as cash transfers. Assistance in the form of time is particularly important for those at risk of participating in AFDC because they are likely to have young children who require extensive care. In addition, unlike Rosenzweig and Wolpin (1994), this study examines the effects of AFDC on the *amount* of familial assistance, not just the probability of receiving such assistance. Furthermore, this study analyzes a new data set that contains relatively high quality data on private interhousehold transfers and public transfer income, which we now discuss.

The Data

The Panel Study of Income Dynamics (PSID) is used in the analysis. Households are interviewed annually regarding a number of factors, including income sources for the prior year, household composition, detailed employment information about heads of households and their spouses, and earnings of all household members. Also, an extensive set of background information about heads of households, and a more limited set of information about spouses, has been collected.⁵ Particularly pertinent to this study is the high-quality and detailed information on public transfer income.⁶

The data that receive primary attention in this study come from a supplement to the 1988 PSID that investigates private interhousehold transfers.⁷ Using an extensive battery of questions, the supplement collects information on the amount of money and the number of hours of time help received by the respondent in the preceding calendar year from anyone outside of the household.⁸ The respondents are also asked to provide information regarding each of their parents' (including spouse's parents, if they are married). This information includes the parents' net wealth and education. Combined with the information collected

⁵The PSID consists of two samples, The Survey Research Center sample and the Survey of Economic Opportunity sample. The former is a random sample and the latter over sampled low income households whose head was under 60 years of age. Both samples are used in the analyses unless otherwise indicated. The PSID sample weights are used in calculating the descriptive statistics.

⁶In addition to the question regarding AFDC income, there is a question asking about "other welfare income." O'Neil et al (1986) present evidence that suggests that some AFDC income is actually reported as "other welfare income." Moreover, they find that analyses of exits from welfare are sensitive to the exclusion of "other welfare income" from total AFDC income. Specifically, they report that in some cases AFDC income would follow a pattern over time such as -- \$2000, \$2000, \$0, \$2000 -- while "other welfare income" would follow a pattern such as -- \$0, \$0, \$2000, \$0. In addition, PSID staff suggest that this may be happening. Therefore, reported in Table 5 are specifications that add "other welfare income" to AFDC.

⁷Throughout the paper the term "household" will refer to the nuclear family, which consists of the PSID respondent and the his/her family living there. Thus, a respondent's parents, children, siblings, or any other relative not living in the respondent's household are not considered to be part of the respondent's "household." This unit of analysis is technically referred to as a PSID "family unit" as defined in the PSID User's Guide (Hill, 1992). For clarity in exposition, "household" is used instead of "family unit."

⁸Unfortunately the data do not report loans and gifts separately. However, there is some evidence that loans are seldom repaid. Transfers of money to parents are infrequent; only three percent of the households report receiving a transfer from an adult child. Furthermore, Martin and Martin (1978) find that transfers that are originally given as loans are seldom repaid and pressure to do so is minimal. Also note that this assistance does not include child support or alimony payments received, which is collected in other parts of the survey. Finally, the survey did not ask what the time help was for, e.g. child care, help with cooking, or other household production.

annually, the PSID data on private transfers have several advantages over data available elsewhere:⁹

- In addition to financial transfers, time help is collected. This is of particular importance for households with young children who are at risk of participating in AFDC.
- Demographic and income characteristics of both the donor and recipient are available for parental transfers.
- The PSID has an extensive set of information regarding the respondent, and it contains high quality data on income from public transfer programs.

One of the deficiencies of the PSID for the present study is that transfers are reported as being received by the household, not specific individuals within the households. Therefore, in order to examine the individual as the unit of analysis, assumptions would have to be made about how the transfer was allocated within the household. For this reason, the household is used as the unit of analysis. As a result, the PSID data are limited in their usefulness in studying coresidence in this context. Therefore, the living arrangements decision is not examined.¹⁰ However, as discussed above, there is evidence from previous studies that living arrangements are influenced by AFDC generosity, although the magnitude of the effect may be small.

AFDC and Private Assistance

The AFDC Program

Aid to Families with Dependent Children (AFDC) was established as part of the Social Security Act in 1935 to aid needy children without fathers. Today it provides benefits to over

⁹The only other data set that contains information on private monetary and time transfers with a nationally representative sample of the AFDC-eligible population is the National Survey of Families and Households (NSFH). Unfortunately the NSFH did not collect data on public transfers received from each individual program separately. Income from Aid to Families with Dependent Children, General Assistance, food stamps, and emergency assistance are all in one category. Another deficiency with the NSFH for this analysis is that it collected data on familial transfers received over the preceding five years period as a whole, while public transfer income is reported for the past one year. There are other sources of nationally representative data on private transfers, but they do not contain data on money and time transfers. These include the March Current Population Survey, the National Longitudinal Survey, the Survey of Income and Program Participation, the Survey of Consumer Finances, the President's Commission on Pension Policy, and the annual core section of the PSID.

¹⁰Note that the vast majority of those participating in AFDC as reported by the PSID are heads of households. Of those family units receiving AFDC, individuals other than the head or spouse were receiving AFDC in 10.1 percent of the cases. Furthermore, as noted by Altonji et al (1996), information on individuals other than the head and spouse is less extensive in the PSID. If a child of the head and spouse of the interviewing unit establishes her own home she will then be treated as a separate PSID interview unit and will receive the full interview. If she subsequently moves back into her parents' home, she would continue to receive the full interview. However, this represents only a small fraction of the total number of children coresiding with their parents.

4.7 million families with an average monthly cash assistance payment of \$388.¹¹ The Federal government sets certain minimum limits on the amount of benefits and qualification requirements, and it covers about 54 percent of the expenses of the program, on average across states. However, the states have discretion over the amount of the maximum benefit and, as a result, there is large variation across states in the generosity of AFDC payments. The average maximum monthly AFDC benefit for a one-parent family of three in January, 1992 across all states was \$372. Twelve percent of the states had maximums greater than \$600 and 20 percent had maximums less than \$250 per month (U.S. House of Representatives, Committee on Ways and Means, 1992). The variation in welfare generosity across states will be used to identify the effects of welfare income on familial assistance received.

The amount of the benefit received is also a function of the earned income and the unearned income of the applicant.¹² In 1987, the year of the data analyzed here, the first \$30 of income (plus an additional \$175 for expenses related to working and child care) was disregarded in the monthly benefit calculation. Also, during the first 4 months of enrollment in the program, one-third of the applicant's income was disregarded.¹³ For example, consider someone facing a state maximum AFDC benefit of \$663 and who earned \$581 last month. They would receive \$175 in initial disregards. Then, one-third of the remaining balance, or \$125, would also not be subject to taxation by AFDC. In sum, \$330 would be disregarded, and the benefit received would be equal to \$412 ($663 - (581 - 330)$).¹⁴

Sample Selections

As mentioned above, the household is the unit of analysis, and the following sample selections were made. First, the analysis is restricted to those households in which neither a parent nor parent-in-law lives within the same household as the respondent, and to those households in which the head did not change between 1987 and 1988. The question regarding transfers with non-parents conditions on the transfer being with someone outside of the household, i.e. it asks about interhousehold transfers. The question regarding transfers with parents does not make this condition. Thus, in order to restrict attention to interhousehold transfers, this selection is made; it reduces the sample to 6,885 (from 7,114). The latter

¹¹The benefit is for 1991 as reported in U.S. House of Representatives, Committee on Ways and Means (1992), and it is the average across all recipients.

¹²Some forms of unearned income are disregarded, but familial cash transfers are not, as discussed below.

¹³This disregard is eliminated after 4 months.

¹⁴This example is drawn from U.S. House of Representatives, Committee on Ways and Means (1992, p. 607).

selection is made to insure that private transfers that were made in 1987 and reported in 1988 are attributed to the correct household head. This selection reduces the sample to 6,408.

The baseline analysis is also restricted to households in which the head is either black or white; this reduces the sample only slightly, to 6,292. Cases which had missing values for financial or time assistance received were also deleted, which reduced the sample to 6,143. Fifty-five of the remaining observations for which cash transfers were \$10,000 or more, or time transfers were 6570 hours or more during the year were also eliminated. The mean private transfer in the (non-censored) sample with the above selections is \$1,941 and 372 hours; therefore, these are very large transfers relative to most.¹⁵ This leads to a sample of 6,088 households.¹⁶ As shown in Table 5, the estimates of crowding out change very little when this selection is not made.

The objective of the final selection is to narrow the sample to those households which are at risk of participating in AFDC. For the baseline analyses, a very broad categorization of "at risk" is used -- households in which total non-AFDC and non-family transfer income is less than \$30,000.¹⁷ This reduces the number of households to 3,579, which is our baseline sample. Estimates of displacement with other more and less restrictive income cut-offs are presented below (Table 5); none of these selections alter the estimates of displacement substantially.¹⁸

¹⁵Also note that if the final selection, i.e. restricting to those households with income less than \$30,000, is made prior to the selection due to outliers, then only 14 cases are eliminated as a result of the outlier restriction. This is evident in the sample sizes reported in Table 5, which reports the estimates of displacement when the households that contained the outliers are added back into the analyses.

¹⁶An additional twenty households were dropped because they resided outside the US or they had missing values for covariates, leading to a sample size of 6,068.

¹⁷Note that there were actually four households that were above this threshold and claimed to have received AFDC income. Reported in Table 5 are analyses that add back these observations, as well as other observations whose non-AFDC and non-family transfer incomes are greater than or equal to the \$30,000 threshold.

¹⁸Note that the analyses are not restricted to female headed households. There are 93 cases in the data for which a household without a female head received AFDC; this represents 27 percent of the (un)weighted number of households receiving AFDC. These households are most likely participating in the AFDC-UP program or, for example, the daughter of the household head is coresiding and receiving AFDC. It may also be the case that the male head of the household is cohabiting with a woman who is receiving AFDC. Moffitt et al (1994) show that AFDC provides an incentive to cohabit because under some state rules income of cohabitants is not counted against AFDC benefits. Because there is a substantial minority of male headed households receiving AFDC, the baseline analyses is not restricted to female headed households. When this selection is made, the substantive results hold, and these estimates are reported in Table 5.

Descriptive Analyses

Familial sharing networks are quite pervasive (Table 1). Nineteen percent of the households in the baseline sample received cash assistance during 1987, and among those receiving assistance, the average amount received was \$1,100; the median amount received was \$500.¹⁹ On the other hand, just 5.3 percent of these households received AFDC. However, AFDC is a more important source of income for its recipients than is private transfers among its recipients; the average amount of benefit received per AFDC household was \$3,133 in 1987.

Assistance in the form of time help is also quite commonly transferred across households. Thirty percent of households received some help in 1987, and the amount received is substantial for those receiving help--348 hours, or almost 1 hour per day. The median amount received is 120 hours. Thirty seven percent received assistance of either money or time help. A substantial share of households, 9.8 percent, received both money and time help during the year. However, the correlation between the amount of time and money help is fairly low: .102 for blacks and .078 for whites, . In sum, as has been shown in other studies of private transfers (Dunn, 1993; Altonji et al, 1996), financial assistance can be a significant source of income. Moreover, assistance in the form of time help is quite substantial.

In terms of analyzing the relationship between AFDC and familial support, and whether familial assistance is a viable alternative source of support, we are especially interested in those who are most at risk of being on AFDC. The majority of AFDC participants are females who head their own household and have children under 18 years of age living with them. Thus, also in Table 1 is reported the sample characteristics for female headed households with children under 18 who are receiving not AFDC (column 2) and those who are receiving AFDC (column 3). Familial cash assistance is received by 30 percent of those not receiving AFDC, and the average amount received is \$1,111, which is 6 percent of their total household income, on average, excluding government transfers and familial cash assistance. Time help is received extensively by these households, presumably in the form of child care. Just over one-half of these households received time help, and the amount received was very large; 705 hours, on average, which is 1.93 hours per day. Fifty-eight percent received either money or time help, and 23 percent received both forms of assistance.

¹⁹Recall that households receiving transfers of greater than \$10,000 or 6570 hours are deleted from the sample. The mean amount cash and hours of assistance received among recipients in the non-censored sample is \$1,450 and 434 hours.

Female headed households with children who also receive AFDC are slightly less likely to receive familial assistance of either money or time. Twenty four percent of this sample received cash assistance, which is 5 percentage points less than for those not receiving AFDC. And the average amount received, \$847, is lower. Time help is also less likely to be received; 45 percent receive this form of help, which is 7 percentage points lower than for those without AFDC. Moreover, among those receiving time help, those not on AFDC receive 72 percent more hours of time help. These simple tabulations suggest that AFDC assistance may indeed lead to displacement of familial assistance; those who rely on AFDC do not have as great a need for familial help, so family members respond by giving them less help. However, there are many other differences between the samples. Most notably, those not receiving AFDC have much higher income from other (i.e. non-government and non-familial) sources. In fact, the average income for non-AFDC recipients is almost 5 times that of recipients. Even when AFDC is included in total income, total income is still more than two times greater for individuals not receiving AFDC. Given that all previous studies, except Cox (1987) and Cox and Rank (1992), have found a negative effect of income on transfers received, it is somewhat surprising that transfers were actually lower for those receiving AFDC than for those not receiving AFDC. Another difference between these samples is the racial composition. While 58 percent of those receiving AFDC are black, 42 percent of those not receiving AFDC are black. Also, the schooling levels are substantially lower for those receiving AFDC, with a gap of 1.3 years between the mean years completed for the two groups. These differences may be confounding the relationship between AFDC and familial assistance, which will be addressed below.

Another reason not to assume crowding out occurs based on the simple tabulations in Table 1 is that, for several reasons, the amount of AFDC income received in a year is endogenous with respect to private interhousehold transfers. First, women who apply for AFDC are required to report any cash assistance they receive from family members and friends to AFDC authorities, and the amount of AFDC awarded is then discounted by the amount of familial cash assistance received. This induces a direct negative correlation between AFDC benefits and familial cash assistance. However, cash assistance from family members and friends is easy to conceal and, therefore, may not actually be reported to AFDC officials. In fact, Edin (1991, p. 466) reports qualitative evidence that recipients do not report assistance from family and friends to welfare departments. Second, in the presence of a stigma effect of AFDC (Moffitt, 1983), people may be less likely to apply for AFDC if they are receiving support from family and friends and can "afford" not to enter the welfare rolls. Third, on the other hand, those who are receiving familial support may be able to afford to stay

on AFDC longer as opposed to finding a (potentially) higher paying option, such as employment. In addition, unobserved determinants of familial transfers, such as unobserved determinants of the intensity of the AFDC spell, are likely to be correlated with the amount of AFDC income. Fifth, if private transfers and AFDC income are measured with error, and individuals who under-report income from one source are more likely to under-report income from the other, then the error in an equation explaining financial transfers received and the error in an equation explaining government transfers received (these equations are presented below), would be positively correlated.²⁰ Finally, AFDC income may be endogenous if parental characteristics are not adequately controlled. For example, poorer families may be less able to provide assistance to their relatives, and single women with greater amounts of AFDC income are more likely to be from disadvantaged backgrounds; therefore, a negative relationship would be found between AFDC income and the amount of familial assistance if family background/wealth were not controlled. Our models control for parental wealth and education, but there may still be important unobserved components of family background inducing endogeneity. Unfortunately the various scenarios that imply endogeneity lead to different predictions with regard to the direction of the bias of an OLS estimate of crowding out. The first two and last reasons imply that the estimate would overstate crowding out, and the remaining three reasons imply that it would understate crowding out. Therefore, the direction of the bias cannot be determined *a priori*.

Instrumental variables techniques are employed to address endogeneity, where the instruments are the generosity of AFDC benefits in each state. As discussed above, there is substantial variation in the maximum benefits awarded across states. As a first attempt to determine whether there is a relationship between state AFDC generosity and familial assistance, households receiving AFDC are disaggregated into two groups (Table 1): the 50 percent living in states with less generous benefits (column 4), as measured by the maximum benefit for a family of 3 (one parent and two children) in 1987, and the 50 percent living in states with more generous benefits (column 5). Individuals living in high benefit states are much less likely to receive financial assistance: 18.1 percent versus 30.6 percent for those not living in more generous states. On the other hand, time help is not less likely to be received by those in high benefit states. Moreover, the amount of cash assistance received, on average among recipients, is greater in high benefits states than low benefit states. For those receiving

²⁰Note that Duncan and Hill (1989) find that, compared with official program totals for 1980, the PSID accounts for 92 percent of income from the AFDC program. This provides evidence that respondents to the PSID may not substantially under-report income from AFDC.

time help, the amount received is 18 percent lower among individuals in high benefit states, which would be consistent with crowding out.

Individuals living in high versus low benefit states are similar on most dimensions. However, one substantial difference is in the racial composition, with a greater proportion of those in the low benefit state being black. Most recent quantitative studies of interhousehold familial assistance find that blacks receive less assistance; therefore, the difference in familial assistance between individuals in high and low states is mitigated by not controlling for race. Another difference is that income (from non-government and non-familial sources) is higher for those in high benefit states. Given that income has a negative effect on the amount and incidence of financial transfers received (except for the studies mentioned above), the differences in the incidence of familial financial assistance reported in columns 5 and 6 may be overstated. In order to incorporate these confounding factors, we now turn to the multivariate analyses.

Estimating the Displacement Effect of AFDC

Model and Estimation Procedures

We now turn to estimating the extent to which assistance received from Aid to Families with Dependent Children displace private interhousehold support received from relatives and friends. It is assumed that donors (e.g. parents) of interhousehold transfers determine a (latent) amount of transfers of form j , F_{ij}^* , that they desire to give to household i (e.g. adult child who is a single mother), where j =money or time. This is described by equation (1a) below. For this study, the determinant of central importance is the (actual) amount of AFDC (government) income G_i that is received by household i . The model is as follows:

$$F_{ij}^* = \beta'_{xj} X_i + \beta_{gj} G_i + u_{ij} \quad j=\text{money } (m), \text{ time } (t) \quad (1a)$$

$$F_{ij} = \begin{cases} F_{ij}^* & \text{if } F_{ij}^* > 0 \\ 0 & \text{otherwise} \end{cases} \quad (1b)$$

where F_{ij} is the actual amount of private interhousehold transfers received by household i of form j where j =money or time, and X_i is a matrix of control variables to be discussed later. For the sample analyzed, 18.2 percent and 29.2 percent of the (un)weighted sample received private transfers of cash and time help, respectively.

As noted above, the amount of AFDC income may be endogenous to familial assistance. Let G_i^* represent the (latent) amount of AFDC income received by household i in a given year, and let it be described by the following process:

$$G_i^* = \gamma_x X_i + \gamma_s S_i + \gamma_{ff} F_{ij} + \varepsilon_i \quad (2a)$$

$$G_i = \begin{cases} G_i^* & \text{if } G_i^* > 0 \\ 0 & \text{otherwise} \end{cases} \quad (2b)$$

where S_i is a matrix of state-specific policy parameters that influence G_i^* but are assumed to be uncorrelated with u .²¹ Obviously, not all household heads receive AFDC; therefore, the latent amount is censored at zero.

In estimating the effect of AFDC on cash and time help, β_{gi} , we proceed as follows. A Tobit model for the amount of dollars and the amount of hours received is specified first; these models are estimated separately by maximum likelihood methods (Table 2 for money and Table 3 for time).²² To determine whether the estimates are robust to specification, OLS models for the amount of money and hours received are also estimated (Table 2 for money and Table 3 for time). It is found that the estimates of the effects of AFDC on the actual amount of assistance received (F) are similar in the two specifications. The endogeneity of AFDC income is then addressed using linear two stage least squares (Table 4). AFDC program variables that vary among states are used as instrumental variables, and these include the state maximum benefits conditioned on the family size and whether the state offers a medically needy program. There is evidence that in non-linear models linear instrumental variables does well in samples that are smaller than the ones used in this study. Using a Monte Carlo study of the bivariate Probit model, Angrist (1991) finds that the linear instrumental variables estimator does not perform much worse than the correctly specified maximum likelihood

²¹The instruments would not be valid if cross-state migration decisions were based on cross-state variation in welfare benefits. However, recent evidence does not support this claim (Walker, 1994; Roan, 1996).

²²Note that a substantial proportion of those receiving time help receive relatively small numbers of hours of assistance. Of those receiving time help, the proportions receiving no more than 10, 20, 30, and 50 hours are, 5.7 percent, 14.7 percent, 21.8 percent and 41.2 percent, respectively. Therefore, it appears as though there is not a "fixed cost" associated with time help.

estimator.²³ Moreover, as Angrist (1991) mentions, the linear IV estimator is desirable because the source of the identifying information is more evident.²⁴

Note that the correlation of the residuals in the OLS equations for money and time help is .077 for blacks and .085 for whites; therefore, joint estimation of money and time is not likely to improve the estimates of the standard errors substantially. Throughout the analyses the regressions are stratified by race (i.e. blacks and whites). It is found that the precision of the estimates of displacement are reduced when the racial groups are pooled, and several coefficient estimates are statistically significantly different across groups.

Results

Before turning to the central results, i.e. the effects of AFDC income, the effects of the control variables as reported in the two-stage least square estimates are briefly discussed (Table 4). The means and standard deviations of all explanatory variables are given in appendix Table A1.

Schoeni (1993) finds strong non-linearities in the effects of age on transfers; therefore, a semi-parametric specification is used. For the most part, age is negatively related to money and time assistance received throughout the age range. For whites, the majority of the differential occurs between those under and those over 30. There is strong evidence that those with very young children, i.e. under 3, receive significantly more time help than others. Income from all sources (excluding AFDC and family transfers) is negatively associated with money help, and this is consistent with several recent studies (Altonji et al, 1996; Dunn, 1993, McGarry and Schoeni, 1995). However, the association is not monotonic for blacks. Years of schooling is also positively related to cash assistance. The greater number of living parents and parents-in-law one has, controlling for own marital status, the greater the amount of assistance received.²⁵ There is modest evidence suggesting that individuals with more educated fathers are more likely to receive cash assistance. Furthermore, individuals with less

²³ The largest sample size studied by Angrist (1991) is 800, and the baseline samples here consist of over 1750 cases.

²⁴ Note that Nelson and Olsen (1978) proposed a consistent estimator of a similar, yet distinctly different model. In their model, the endogenous variable is the latent value (G^*), not the observed value of the limited variable (G). This is a different model and should not be confused with the model above.

²⁵ A parent is defined as a household in which a parent or parent-in-law resides. For example, a respondent whose own parents are married and together and whose spouses' parents are alive and divorced, he would have three parents, i.e. parent-households.

wealthy parents receive less financial assistance, at least among whites.²⁶ For whites, female headed households receive more time help than male headed households, and, for blacks, a greater amount of cash assistance is received by households headed by females. Finally, it should be noted that all regressions included nine regional indicators, the state unemployment rate, and state per capita income to control for variation across states and regions that may confound the influence of AFDC benefit generosity.

The central result is the effect of AFDC income. The OLS and Tobit results are discussed first (Tables 2 and 3). The coefficient estimates for cash assistance for whites are similar in the two specifications. The OLS estimates imply crowding out of 4.7 cents per dollar of AFDC benefit received. The Tobit coefficient is -.2586. The effect on the expected value of F of a one dollar change in AFDC income is expressed as $\frac{dE(F_j)}{dG} = \Phi\left(\frac{\beta_j' Z}{\sigma_j}\right) \beta_{gj}$, where Z is the set of all regressors in (1a) and $\Phi(\cdot)$ is the cumulative normal distribution function. Throughout, $\Phi(\cdot)$ is evaluated as equal to the proportion of the weighted sample receiving private transfers of form j . In the case of cash assistance for whites, the displacement effect is 5.5 cents per dollar, which is similar to the OLS estimate, but it is more precisely estimated. For blacks, the estimates are somewhat lower. The OLS estimate implies crowding out of 3.7 cents per dollar of AFDC while the Tobit estimate suggests displacement of 2.2 cents.

The estimates of time help provide no evidence for displacement for whites. Neither the OLS or Tobit estimate is precisely estimated. For blacks, there does appear to be displacement of time help. Both the OLS and Tobit estimates imply that an additional \$1000 in benefits reduces the number of hours of time help received from family and friends in a given year by about 20 hours. These estimates are precise. If familial assistance were not endogenous to AFDC, then these estimates provide evidence in support of the displacement hypothesis. For whites, cash assistance may be crowded out by as much as 5 cents per dollar while time help is not affected. For blacks, cash assistance and time help are both crowded out. Cash displacement is 2 to 4 cents per dollar, while time help would decrease by about 20 hours per \$1,000 increase in AFDC benefits received.

²⁶If the measures of parental resources do not adequately control for parent's ability to provide assistance, then the parameter estimates may suffer from omitted variable bias. The presence of omitted variables is another motivation for using instrumental variable techniques. Furthermore, Dunn (1994) finds that the effects of (potential) recipient's income on the amount of financial assistance received from parents does not change substantially when parental income (as reported by the parent) is included as a control. Dunn's result suggests that more accurate controls for parental income than are used in Table 2 would not substantially influence the effects of AFDC income.

As discussed above, the amount of AFDC may be endogenous. Two-stage least squares is used to address the endogeneity. The first stage estimates for blacks and whites are given in appendix Table A2. There are substantial differences between blacks and whites in the amount of the variation in AFDC income that can be explained overall and by the instrumental variables *per se*. For blacks, the R-squared resulting from regressing AFDC income on the instruments alone (i.e. AFDC maximum benefit adjusted for family size and a dummy indicating whether the state supported a medically needy program) is .1683. If all the covariates *except* the instruments are included, then the R-squared is .3427. The marginal increase in the R-squared by including the instruments along with all other covariates is .0262. For whites, a relatively small fraction of the variation in AFDC income is explained by the instruments. With only the instruments included, the R-squared is .0214. Without the instruments but with all other covariates, the R-squared is .1654. And adding the instruments with all other covariates increases the R-squared to only .1669.²⁷

Given that the instruments explain so little of the variation of AFDC income for whites, it would be surprising if the two-stage least squares estimates were precise, and in fact they are not. Neither the amount of time nor the amount of cash assistance is found to be significantly effected by AFDC income for whites. The standard errors of both estimates are very large, and the coefficients change substantially from the OLS models.²⁸

The coefficients for blacks are more precisely estimated. The estimates imply crowding out of 17.0 cents per dollar, and time help is reduced by 75 hours per year for every \$1,000 increase in AFDC income. These estimates imply that, among blacks, if the amount of AFDC benefit received by a family member increases, the amount of familial assistance that will be provided to that person will diminish. The estimates also indicate that endogeneity, which was discussed above, is important.

The results are fairly robust to the specification. The two-stage least squares estimates reported in Table 4 are given in the first row of Table 5. Modifications on the baseline are

²⁷Part of the reason that the instruments are stronger for blacks than for whites is that a greater share of blacks in the sample receive AFDC. In addition, among AFDC recipients, 83 percent of blacks versus 68 percent of whites were enrolled the entire 12 months of the year.

²⁸In using IV, Bound, Jaeger, and Baker (1994) demonstrate that the degree of finite sample bias (relative to OLS) depends on the F statistic on the first stage model. Given the low additional explanatory power of the instruments for the whites, the estimates for the whites are also likely to suffer substantially from finite sample bias.

given in subsequent rows. The estimates are not sensitive to restricting to female heads; the estimates of financial crowding out are only slightly higher for blacks (19 cents instead of 17), and the time estimates are virtually identical.

In the data, 72 percent of those receiving AFDC report being on AFDC the entire 12 months of 1987.²⁹ Even though a large proportion of those receiving are on AFDC the entire year, the crowding out estimates may be driven by differences across individuals in duration on AFDC. For example, those who are on AFDC a greater number of months may require a greater amount of assistance, in general, and, therefore, may receive greater amounts of familial assistance; this would induce a positive bias on the estimate of financial crowding out. On the other hand, those who are on AFDC longer may need less time help because they spend a greater number of their months at home and, presumably, can take care of their children and complete other home production more easily than those who are, for example, working. This would imply a downward bias in the estimates for the amount of time assistance. Therefore, the number of months on AFDC in the past year is added as a control variable, treating it as exogenous.³⁰ The estimates for blacks do not change substantially, implying that the bias may not be great, or, perhaps, that the 2SLS method is correcting for these omitted characteristics.

The determination of households at risk of enrolling in AFDC, i.e. the selection of households with non-AFDC income less than \$30,000, was somewhat arbitrary. This assumption is tested by imposing both lower and higher income cut-offs. If the cutoff is lowered to \$20,000, the estimates of displacement for blacks remain precise, but displacement falls to 12 cents per dollar and 55 hours per \$1,000.³¹ If the income restriction is eliminated, and thereby all households are included in the sample, displacement is again found to occur, and the estimates are very similar to the baseline -- 15 cents per dollar and 78 hours per \$1,000.

In addition to the specifications reported in Tables 2 to 5, several alternatives were examined. Non-linear effects of AFDC were tested (specifying a quadratic), but they were not found to exist. AFDC income was interacted with whether the household had at least one living parent to determine whether displacement only occurred among those with living

²⁹Note that the number of months is retrospectively reported for 1987 at the time of the interview in the calendar year 1988. Therefore, they suffer from the well known problem of seam bias.

³⁰Additional instrumental variables are not available to allow duration to be endogenous.

³¹Note that there are 15 households that have income of between \$20,000-\$30,000 and received AFDC.

parents; however, no significant results were found. Additional specifications included not eliminating households in which a parent coresides, not restricting to households in which the head did not change, and restricting to households with income less than \$10,000. None of these specifications led to substantially different estimates of displacement among blacks, and statistically significant displacement was never found for whites.

Summary and Discussion

Familial assistance is an important source of support for female headed households with children. Twenty eight percent receive cash assistance and 49 percent receive time help in a given year from friends and relatives living outside the household. And the mean amount received for recipients is 8.1 percent of the total amount of income from all sources. The amount of time help received is also substantial, with individuals receiving such assistance getting 11.8 hours of help *per week*, on average. Presumably the help is received largely as child care, although these data do not explicitly allow that to be determined.

However, the decision by family members and friends to provide assistance to a single mother is influenced by income received by the single mother from other sources. The state, specifically the Aid to Families with Dependent Children program, is one of the primary alternatives available to women with young children. It was found that AFDC income displaces cash assistance received among blacks. The estimates imply that a one dollar increase in AFDC benefits decreases the amount of cash assistance by 17.0 cents. For time help, a \$1,000 increase in AFDC benefits leads to a decline of 75 hours of assistance received in the year. For whites, none of the estimates of crowding out are precise.

If private transfers received from friends and relatives are reduced because of public alternatives, some of the benefits of the public program "slide over" to others.³² In the present case, benefits (more specifically, income) "slide" to those family members and friends who reduce the amount of private transfer support they give. However, people receiving the "slide benefits" from AFDC are more likely to be poor or on welfare themselves relative to the average citizen. Indeed, there is evidence of strong positive intergenerational correlation in welfare participation (Duncan et al, 1988). Daughters of women who participated in AFDC are more than twice as likely to participate in AFDC themselves as daughters of women who did not receive AFDC (U.S. House of Representatives, Committee on Ways and Means, 1992, p. 690.) Moreover, in our data, females who have young children, are heading their own

³² See Lampman and Smeeding (1985) for more discussion of "benefit slide."

household, and are receiving AFDC are one-half as likely to have a living parent as mothers heading their own household and not receiving AFDC. And among single mother households that do have living parents (who are still married to each other), the wealth of the parents of women on AFDC is substantially lower than the wealth of the parents of women not on AFDC; the wealth of the parents of those on AFDC is 50 percent more likely to be less than \$25,000 and only half as likely to be greater than \$250,000. Although public transfer programs may not have been designed to assist the friends and relatives of AFDC participants, they may be people to whom society would be willing to make public transfers.

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Table 1. Characteristics of Households by Whether Receiving AFDC and Whether They Reside in a State with High AFDC Benefits*

| | Baseline Sample (N=3579) | Female-headed households with children and: | | All households with AFDC* | |
|--|-----------------------------|--|----------------------|----------------------------------|-----------------------------------|
| | | without AFDC (N=400) | with AFDC (N=249) | Low benefit states (N=166) | High benefit states (N=171) |
| Received cash | 18.9% | 29.6% | 24.2% | 30.6% | 18.1% |
| Dollars received | \$1,100 | \$1,111 | \$847 | \$660 | \$1,111 |
| Received time help | 30.1% | 52.0% | 45.4% | 44.3% | 50.3% |
| Hours received | 348 hours | 705 hours | 411 hours | 424 hours | 350 hours |
| Other income | \$12,030 | \$13,948 | \$3,285 | \$3,350 | \$4,449 |
| Proportion black | 17.8% | 41.5% | 57.8% | 63.9% | 46.9% |
| Father has at least high school degree | 24.3% | 29.2% | 27.0% | 18.0% | 34.0% |
| Age | 50.7 | 36.6 | 34.1 | 34.1 | 33.9 |
| Years of schooling | 11.5 | 12.2 | 10.9 | 10.8 | 11.0 |
| Number of siblings | 4.66 | 4.527 | 4.62 | 4.93 | 4.94 |
| Children ≤ 17 | 29.7% | 100.0% | 100.0% | 100.0% | 100.0% |
| Whether received AFDC | 5.3% | 0.0% | 100.0% | 100.0% | 100.0% |
| Total AFDC income | \$3,133 | 0 | \$3,126 | \$2,044 | \$4,120 |
| Months on AFDC in 1987 | 0.646 | 0 | 9.92 | 9.38 | 9.43 |
| Mean maximum AFDC benefit for family of three | | | | \$218 | \$474 |

*All those households receiving AFDC were ranked by the maximum amount of AFDC benefit available to a family of three in their state. Those households located in a state which put them below the median were deemed to live in low benefit states, while those above the median were deemed to live in high benefit states. PSID family weights are used to calculate all statistics in the table.

Table 2. OLS and Tobit Estimates of Financial Assistance Received by Whites and Blacks.

| Explanatory variables | Whites (N=1793) | | | | | Blacks (N=1786) | | | | |
|-------------------------------------|-----------------|-----------|---------|----------|-----------|-----------------|-----------|---------|----------|-----------|
| | OLS | | Tobit | | | OLS | | Tobit | | |
| | Coeff. | Std. Err. | Coeff. | dE(F)/dG | Std. Err. | Coeff. | Std. Err. | Coeff. | dE(F)/dG | Std. Err. |
| AFDC income | -0.0473 | 0.0285 | -0.2815 | -0.0549 | 0.1107 | -0.0365 | 0.0114 | -0.1317 | -0.0217 | 0.0613 |
| Marital status: | | | | | | | | | | |
| Married | 139.2 | 86.50 | 642.4 | 125.3 | 328.1 | -19.68 | 61.19 | 289.6 | 47.79 | 329.6 |
| Widowed | 20.79 | 84.10 | -344.7 | -67.22 | 380.6 | -34.73 | 63.36 | -119.54 | -19.72 | 408.1 |
| Divorced/Sep. | 93.74 | 69.54 | 314.5 | 61.33 | 255.7 | 1.03 | 43.17 | 263.6 | 43.50 | 216.6 |
| Female | 61.37 | 58.99 | 443.5 | 86.49 | 233.2 | 71.65 | 44.79 | 456.3 | 75.30 | 244.2 |
| Child ≤ 2 yrs old | -28.05 | 73.78 | -216.42 | -42.20 | 253.9 | 56.74 | 48.75 | 516.0 | 85.15 | 240.3 |
| Child 3-5 yrs old | -65.90 | 71.96 | -103.4 | -20.17 | 250.8 | -66.77 | 47.20 | -661.4 | -109.1 | 255.6 |
| Child 6-13 yrs old | -121.9 | 73.34 | -613.8 | -119.7 | 272.4 | 70.60 | 45.09 | 148.4 | 24.48 | 239.3 |
| Child 14-17 yrs old | 160.2 | 86.014 | 159.0 | 31.00 | 326.0 | 9.05 | 50.87 | 179.7 | 29.66 | 278.6 |
| Family size | 46.15 | 32.83 | 193.9 | 37.81 | 125.6 | -4.90 | 16.78 | -15.801 | -2.61 | 94.02 |
| Health fair | -59.98 | 52.93 | -474.5 | -92.52 | 253.5 | 102.8 | 40.47 | 309.2 | 51.02 | 222.3 |
| Health poor | -5.94 | 76.37 | 189.7 | 37.00 | 334.6 | 112.4 | 57.53 | 360.4 | 59.46 | 349.0 |
| Number of siblings | -17.11 | 5.86 | -86.07 | -16.78 | 24.62 | 4.55 | 3.95 | -9.9613 | -1.64 | 21.15 |
| Age: 26-30 | -89.06 | 74.12 | -381.91 | -74.47 | 233.1 | -3.23 | 58.04 | 79.30 | 13.09 | 275.3 |
| 31-35 | -251.6 | 79.468 | -925.7 | -180.5 | 263.3 | -51.64 | 61.24 | -87.86 | -14.50 | 293.3 |
| 36-40 | -219.4 | 92.25 | -986.8 | -192.4 | 317.2 | -132.9 | 71.16 | -597.8 | -98.63 | 352.7 |
| 41-45 | -365.0 | 109.6 | -1057.5 | -206.2 | 381.0 | -85.52 | 87.53 | -700.9 | -115.7 | 464.0 |
| 46-50 | -229.9 | 122.7 | -1547.3 | -301.7 | 475.6 | -118 | 89.79 | -1148.2 | -189.5 | 522.1 |
| 51-55 | -214.5 | 114.7 | -1046.7 | -204.1 | 417.9 | -107.7 | 88.41 | -1304.7 | -215.3 | 527.6 |
| ≥ 56 | -303.1 | 101.9 | -2018.3 | -393.6 | 393.9 | -167.8 | 78.27 | -1295.6 | -213.8 | 430.0 |
| Education: < 11 yrs | -1.76 | 44.19 | 198.5 | 38.71 | 184.9 | 23.78 | 37.53 | 13.22 | 2.18 | 200.0 |
| More than 12 yrs | 225.58 | 48.55 | 941.6 | 183.6 | 182.9 | 98.97 | 44.55 | 813.0 | 134.1 | 218.4 |
| Other income* | -3.80 | 6.89 | -34.33 | -6.70 | 28.46 | -19.08 | 5.65 | -98.60 | -16.27 | 29.65 |
| Other inc. squared | -0.3188 | 0.2366 | -0.9362 | -0.1826 | 0.9544 | 0.5601 | 0.2148 | 2.59 | 0.4277 | 1.11 |
| Parents: One | 150.6 | 64.01 | 908.5 | 177.2 | 287.2 | 86.14 | 44.10 | 795.0 | 131.2 | 268.1 |
| Two | 203.9 | 82.03 | 1113.0 | 217.0 | 346.7 | 119.07 | 52.27 | 1072.0 | 176.9 | 298.4 |
| Three or four | 277.7 | 103.4 | 1549.8 | 302.2 | 409.3 | 165.9 | 74.93 | 1241.6 | 204.9 | 404.2 |
| Head's father's education: | | | | | | | | | | |
| Missing | -105.8 | 91.03 | -697.4 | -136.0 | 411.1 | -117.8 | 56.80 | -583.9 | -96.34 | 290.3 |
| Less than 12 | 2.63 | 50.51 | -14.56 | -2.84 | 182.0 | -97.11 | 47.44 | -417.0 | -68.81 | 224.4 |
| More than 12 | 117.4 | 75.20 | 314.6 | 61.34 | 251.1 | 23.41 | 110.6 | 219.1 | 36.16 | 482.8 |
| Head's married parents' net wealth: | | | | | | | | | | |
| Don't exist# | -384.5 | 93.54 | -741.6 | -144.6 | 304.7 | -101.0 | 123.6 | -523.0 | -86.29 | 546.4 |
| In debt | -266.0 | 121.6 | -470.5 | -91.75 | 405.9 | -31.55 | 137.2 | -394.3 | -65.05 | 673.6 |
| \$0-24,999 | -228.2 | 115.6 | -694.1 | -135.3 | 407.8 | -106.5 | 110.9 | -528.1 | -87.13 | 526.3 |
| \$25,000-99,999 | -207.0 | 113.9 | -726.7 | -141.7 | 407.2 | -16.13 | 116.6 | -42.88 | -7.07 | 536.7 |
| > \$250,000 | 67.78 | 83.38 | 69.70 | 13.59 | 269.2 | 137.2 | 177.3 | 692.0 | 114.2 | 721.0 |
| Distance to head's married parents: | | | | | | | | | | |
| ≤ 10 miles | -318.3 | 83.72 | -373.7 | -72.87 | 270.4 | -121.4 | 109.0 | -352.2 | -58.11 | 502.8 |
| 10-100 miles | -323.6 | 94.40 | -520.3 | -101.5 | 307.7 | -65.00 | 130.3 | -241.0 | -39.76 | 594.2 |
| Constant | 676.8 | 300.8 | -791.1 | -154.3 | 1158.3 | -271.2 | 336.5 | -3341.7 | -551.4 | 1858.8 |
| Mean of depend. var. | \$233 | | \$233 | | | \$131 | | \$131 | | |
| R-squared/Log L | 0.118 | | -3795 | | | 0.061 | | -2709 | | |

Marital status, gender, health, age and education are those of the household head.

Omitted categories: Number of living parents: none; Marital status: never married; Age of head: Less than 26;

Education: 12 years; Head's father's education: 12 years; Head's married parents' net wealth: \$25,000-249,999

Distance to head's married parents: more than 100 miles. *Other income includes all income of the household except all government income and familial cash assistance, and it is divided by 1000. #Indicates that the head's parents are not alive and married to each other. Also included in all regressions are 9 regional indicators, state unemployment rate, and state per capita income.

Table 3. OLS and Tobit Estimates of Time Assistance Received by Whites and Blacks.

| Explanatory variables | Whites (N=1793) | | | | | Blacks (N=1786) | | | | |
|-------------------------------------|-----------------|-----------|-----------|----------|-----------|-----------------|-----------|-------------|----------|-----------|
| | OLS | | Tobit | | | OLS | | Tobit | | |
| | Coeff. | Std. Err. | Coeff. | dE(F)/dG | Std. Err. | Coeff. | Std. Err. | Coeff. | dE(F)/dG | Std. Err. |
| AFDC income | -0.0061 | 0.0165 | -0.0114 | -0.0035 | 0.0363 | -0.0200 | .0064 | -.0698 | -.0209 | .0216 |
| Marital status: | | | | | | | | | | |
| Married | 65.19 | 49.96 | 211.1 | 63.76 | 130.0 | -39.45 | 32.21 | -116.6 | -34.88 | 100.2 |
| Widowed | -3.55 | 48.57 | 23.90 | 7.22 | 128.5 | -34.68 | 35.10 | 177.1 | 52.95 | 117.7 |
| Divorced/Sep. | 26.62 | 40.17 | 20.89 | 6.31 | 98.32 | -21.42 | 24.11 | 35.91 | 10.74 | 72.12 |
| Female | 113.3 | 34.07 | 378.2 | 114.2 | 90.02 | 9.50 | 24.54 | 16.16 | 4.83 | 75.73 |
| Child ≤ 2 yrs old | 142.4 | 42.61 | 433.5 | 130.9 | 100.1 | 131.6 | 24.60 | 376.5 | 112.6 | 72.92 |
| Child 3-5 yrs old | 33.22 | 41.56 | 239.3 | 72.27 | 96.55 | 27.8 | 23.87 | 145.7 | 43.56 | 71.30 |
| Child 6-13 yrs old | 43.89 | 42.36 | 226.4 | 68.37 | 103.6 | 40.08 | 22.57 | 112.0 | 33.50 | 70.98 |
| Child 14-17 yrs old | -36.46 | 49.68 | -53.32 | -16.10 | 129.9 | -25.87 | 25.34 | -126.7 | -37.89 | 84.95 |
| Family size | -4.15 | 18.96 | -87.56 | -26.44 | 50.35 | -15.23 | 8.525 | -43.90 | -13.12 | 29.10 |
| Health fair | 9.48 | 30.57 | 180.9 | 54.63 | 80.48 | 6.02 | 21.64 | 83.28 | 24.90 | 69.46 |
| Health poor | -4.51 | 44.11 | 151.4 | 45.73 | 118.4 | 15.36 | 31.18 | 233.0 | 69.66 | 105.5 |
| Number of siblings | -5.36 | 3.38 | -28.28 | -8.54 | 9.08 | -4.50 | 2.00 | -20.87 | -6.24 | 6.41 |
| Age: 26-30 | -2.45 | 42.81 | -70.66 | -21.34 | 96.71 | 7.22 | 32.20 | 36.54 | 10.92 | 89.28 |
| 31-35 | -17.85 | 45.90 | -53.97 | -16.30 | 105.0 | -11.52 | 33.35 | -33.46 | -10.01 | 93.92 |
| 36-40 | -67.76 | 53.28 | -299.1 | -90.34 | 128.0 | -2.35 | 37.42 | -21.69 | -6.49 | 107.7 |
| 41-45 | -31.40 | 63.28 | -162.8 | -49.17 | 151.8 | -7.91 | 43.87 | -112.9 | -33.74 | 133.2 |
| 46-50 | -42.62 | 70.88 | -220.6 | -66.62 | 175.9 | -71.47 | 45.52 | -392.2 | -117.3 | 147.8 |
| 51-55 | -142.1 | 66.26 | -508.1 | -153.5 | 172.4 | -55.12 | 47.02 | -603.1 | -180.3 | 169.0 |
| ≥ 56 | -120.8 | 58.86 | -588.4 | -177.7 | 152.5 | -46.65 | 42.24 | -450.9 | -134.8 | 137.5 |
| Education: < 11 yrs | -2.46 | 25.52 | -7.54 | -2.28 | 65.26 | 7.40 | 19.94 | -35.79 | -10.70 | 61.92 |
| More than 12 yrs | -15.42 | 28.04 | -44.68 | -13.49 | 70.53 | -12.34 | 21.56 | -4.05 | -1.21 | 64.01 |
| Other income* | -1.22 | 3.98 | -4.68 | -1.41 | 10.70 | -.371 | 1.28 | -5.26 | -1.57 | 4.09 |
| Other income squared | -0.0642 | 0.1367 | -0.1473 | -0.0445 | 0.3604 | 0.0065 | 0.0172 | 0.0590 | .0176 | 0.0557 |
| Parents: One | 44.43 | 36.97 | 140.7 | 42.49 | 107.3 | 51.18 | 23.76 | 265.4 | 79.35 | 84.85 |
| Two | 43.83 | 47.38 | 256.3 | 77.41 | 132.0 | 122.3 | 27.83 | 514.4 | 153.8 | 94.84 |
| Three or four | 54.75 | 59.75 | 320.5 | 96.80 | 156.5 | 104.7 | 36.66 | 462.4 | 138.3 | 119.4 |
| Head's father's education: | | | | | | | | | | |
| Missing | -70.61 | 52.57 | -166.2 | -50.20 | 133.2 | -46.04 | 29.24 | -163.0 | -48.73 | 87.03 |
| Less than 12 | -15.02 | 29.17 | -25.30 | -7.64 | 70.08 | -31.57 | 23.77 | -129.6 | -38.76 | 67.71 |
| More than 12 | -55.1 | 43.43 | -89.99 | -27.18 | 105.2 | -33.21 | 52.36 | -97.23 | -29.07 | 153.9 |
| Head's married parents' net wealth: | | | | | | | | | | |
| Don't exist# | -0.6915 | 54.03 | 28.9 | 8.72 | 130.5 | 30.18 | 53.90 | 63.07 | 18.86 | 159.5 |
| In debt | -0.4144 | 70.21 | -98.67 | -29.80 | 167.9 | -106.9 | 63.88 | -104.6 | -31.28 | 181.8 |
| \$0-24,999 | -59.67 | 66.74 | -59.66 | -18.02 | 152.0 | -13.89 | 53.30 | 4.81 | 1.44 | 151.9 |
| \$25,000-99,999 | 102.6 | 65.77 | 134.8 | 40.72 | 147.2 | -68.75 | 56.84 | -58.64 | -17.53 | 161.1 |
| > \$250,000 | -34.40 | 48.16 | -18.30 | -5.53 | 110.9 | 22.58 | 79.30 | 71.01 | 21.23 | 215.9 |
| Distance to head's married parents: | | | | | | | | | | |
| ≤ 10 miles | 79.09 | 48.36 | 258.6 | 78.09 | 114.4 | 109.5 | 49.23 | 240.6 | 71.94 | 145.9 |
| 10-100 miles | -16.30 | 54.52 | 94.03 | 28.40 | 128.1 | 27.05 | 58.36 | 69.02 | 20.64 | 171.7 |
| Constant | 149.1 | 173.7 | -176.3 | -53.25 | 445.9 | 159.8 | 167.0 | -823.6 | -246.3 | 545.4 |
| Mean of depend. var. | 124 hours | | 124 hours | | | 107.6 hours | | 107.6 hours | | |
| R-squared/Log L | 0.0767 | | -5177 | | | 0.0685 | | -5444.1 | | |

Marital status, gender, health, age and education are those of the household head.

Omitted categories: Number of living parents: none; Marital status: never married; Age of head: Less than 26; Education: 12 years; Head's father's education: 12 years; Head's married parents' net wealth: \$25,000-249,999; Distance to head's married parents: more than 100 miles. *Other income includes all income of the household except all government income and familial cash assistance, and it is divided by 1000. #Indicates that the head's parents are not alive and married to each other. Also included in all regressions are 9 regional indicators, state unemployment rate, and state per capita income.

Table 4. Two-Stage Least Squares Estimates of Financial and Time Help Received by Blacks and Whites.

| Explanatory variables | Whites (N=1793) | | | | Blacks (N=1786) | | | |
|-------------------------------------|-----------------|-----------|-----------|-----------|-----------------|-----------|-------------|-----------|
| | Cash Assistance | | Time Help | | Cash Assistance | | Time Help | |
| | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. |
| AFDC income@ | -0.3034 | 0.6840 | -0.3139 | 0.4231 | -0.1701 | 0.0592 | -0.0746 | 0.0333 |
| Marital status: | | | | | | | | |
| Married | 120.8 | 101.1 | 43.12 | 62.57 | -74.98 | 67.96 | -56.79 | 38.19 |
| Widowed | -22.53 | 144.1 | -55.62 | 89.14 | -93.06 | 70.53 | -62.84 | 39.64 |
| Divorced/Sep. | 114.5 | 90.18 | 51.59 | 55.79 | -18.73 | 45.66 | -33.47 | 25.66 |
| Female | 102.1 | 124.3 | 162.3 | 76.92 | 107.4 | 49.05 | 32.19 | 27.56 |
| Child ≤ 2 yrs old | -41.30 | 83.34 | 126.5 | 51.55 | 109.8 | 55.64 | 115.1 | 31.27 |
| Child 3-5 yrs old | -23.23 | 135.6 | 84.51 | 83.88 | -59.38 | 49.14 | 39.73 | 27.61 |
| Child 6-13 yrs old | -120.9 | 75.06 | 45.07 | 46.43 | 82.58 | 47.13 | 24.32 | 26.48 |
| Child 14-17 yrs old | 202.8 | 143.8 | 14.74 | 88.92 | -18.69 | 54.20 | -26.67 | 30.46 |
| Family size | 66.37 | 63.55 | 20.15 | 39.31 | 38.41 | 25.65 | 7.80 | 14.41 |
| Health fair | -47.57 | 63.45 | 24.39 | 39.25 | 89.51 | 42.44 | -1.93 | 23.85 |
| Health poor | 16.20 | 97.95 | 22.10 | 60.59 | 80.20 | 61.38 | 2.59 | 34.49 |
| Number of siblings | -18.83 | 7.56 | -7.43 | 4.67 | 3.86 | 4.12 | -7.47 | 2.31 |
| Age: 26-30 | -113.6 | 100.2 | -31.94 | 61.96 | 6.87 | 60.45 | 18.89 | 33.97 |
| 31-35 | -297.1 | 146.0 | -72.49 | 90.34 | -63.40 | 63.82 | -12.17 | 35.86 |
| 36-40 | -271.6 | 168.3 | -130.5 | 104.1 | -123.4 | 74.04 | -13.80 | 41.61 |
| 41-45 | -423.5 | 192.2 | -101.7 | 118.9 | -116.2 | 91.90 | -61.08 | 51.64 |
| 46-50 | -330.8 | 297.0 | -163.9 | 183.7 | -108.5 | 93.37 | -74.12 | 52.47 |
| 51-55 | -266.1 | 180.8 | -204.1 | 111.8 | -137.3 | 92.74 | -74.72 | 52.12 |
| ≥ 56 | -376.9 | 223.0 | -209.6 | 137.9 | -218.8 | 84.28 | -85.19 | 47.36 |
| Education: < 11 yrs | 17.40 | 68.24 | 20.56 | 42.21 | 59.63 | 41.99 | 27.57 | 23.60 |
| More than 12 yrs | 229.7 | 50.85 | -10.47 | 31.46 | 94.22 | 46.32 | -18.60 | 26.03 |
| Other income* | -13.99 | 28.11 | -13.47 | 17.39 | -33.11 | 8.46 | -8.27 | 4.75 |
| Other income squared | -0.1159 | 0.5931 | 0.1797 | 0.3669 | 0.8905 | 0.2653 | 0.2421 | 0.1491 |
| Parents: One | 177.4 | 96.91 | 76.61 | 59.95 | 98.93 | 46.15 | 60.79 | 25.93 |
| Two | 260.6 | 173.0 | 112.0 | 107.0 | 138.1 | 54.93 | 145.3 | 30.87 |
| Three or four | 320.8 | 156.3 | 106.6 | 96.69 | 186.0 | 78.33 | 78.34 | 44.02 |
| Head's father's education: | | | | | | | | |
| Missing | -79.26 | 117.0 | -38.70 | 72.38 | -112.0 | 59.07 | -27.38 | 33.19 |
| Less than 12 | 3.32 | 51.69 | -14.20 | 31.98 | -90.01 | 49.38 | -11.54 | 27.75 |
| More than 12 | 117.9 | 76.93 | -54.46 | 47.59 | 22.92 | 114.95 | -69.49 | 64.60 |
| Head's married parents' net wealth: | | | | | | | | |
| Don't exist# | -361.7 | 113.4 | 26.73 | 70.15 | -73.04 | 129.0 | 52.35 | 72.51 |
| In debt | -229.6 | 157.8 | 43.36 | 97.63 | -20.93 | 142.6 | -86.37 | 80.15 |
| \$0-24,999 | -246.7 | 128.0 | -81.86 | 79.21 | -76.72 | 115.9 | 11.21 | 65.14 |
| \$25,000-99,999 | -195.8 | 120.3 | 116.1 | 74.40 | 46.14 | 124.1 | -12.73 | 69.76 |
| > \$250,000 | 57.55 | 89.54 | -46.70 | 55.39 | 139.2 | 184.2 | 88.57 | 103.5 |
| Distance to head's married parents: | | | | | | | | |
| ≤ 10 miles | -330.7 | 91.83 | 64.16 | 56.80 | -131.4 | 113.3 | 90.04 | 63.68 |
| 10-100 miles | -341.7 | 108.0 | -38.06 | 66.79 | -69.93 | 135.4 | 61.78 | 76.09 |
| Constant | 641.1 | 322.1 | 106.2 | 199.2 | -226.2 | 350.1 | -115.5 | 196.8 |
| Mean of depend. var. | \$233 | | 124 hours | | \$131 | | 107.6 hours | |
| R-squared | 0.1123 | | 0.065 | | 0.0561 | | 0.0638 | |

@=endogenous. Marital status, gender, health, age and education are those of the household head. Omitted categories: Number of living parents: none; Marital status: never married; Age of head: Less than 26; Education: 12 years; Head's father's education: 12 years; Head's married parents' net wealth: \$25,000-249,999 Distance to head's married parents: more than 100 miles. *Other income includes all income of the household except all government income and familial cash assistance, and it is divided by 1000. #Indicates that the head's parents are not alive and married to each other. Also included in all regressions are 9 regional indicators, state unemployment rate, and state per capita income.

Table 5. Effects of AFDC Income on Familial Assistance.
 Various Specifications of Two-Stage Least Squares Model.

| | Whites | | | | Blacks | | | |
|---|-----------------|--------------------|-----------|-----------|-----------------|--------------------|-----------|-----------|
| | Cash Assistance | | Time Help | | Cash Assistance | | Time Help | |
| | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. |
| As reported in Table 4 | -0.3034 | 0.6840 (N=1793) | -0.3139 | 0.4231 | -0.1701 | 0.0592 (N=1786) | -0.0746 | 0.0333 |
| Restrict to those hholds with income < \$20,000* | 0.4447 | 0.3417 (N=1064) | -0.3292 | 0.224 | -0.1196 | 0.0505 (N=1410) | -0.0536 | 0.0266 |
| No restriction on hhold income | 0.1578 | 1.565 (N=3798) | 0.2806 | 0.7051 | -0.1544 | 0.076 (N=2268) | -0.0781 | 0.0446 |
| Restrict to female headed households | -.2547 | .5791 (N=632) | .1301 | .4205 | -.1920 | .0725 (N=905) | -.0776 | .0357 |
| Control for months on AFDC in 1987 | -.3355 | .5423 | -.4959 | .3464 | -.1935 | .0704 | -.0832 | .0395 |
| Do not exclude outliers | -1.7907 | 1.5330 (N=1805) | -.3672 | .4229 | -.1695 | .0590 (N=1787) | -.0947 | .0412 |
| Include other welfare income in AFDC total | -.1897 | .6832 | -.0240 | .399 | -.1781 | .0628 | -.0785 | .0351 |

*Income excludes AFDC benefits.

Table A1. Descriptive Statistics of Variables Analyzed, by Race.

| | Whites (1793) | | Blacks (N=1786) | |
|---------------------------------------|---------------|-----------|-----------------|-----------|
| | Mean | Std. Dev. | Mean | Std. Dev. |
| AFDC income | \$97 | \$3,499 | \$497 | \$3,555 |
| Marital status: | | | | |
| Married | 0.406 | 2.548 | 0.224 | 1.010 |
| Never married | 0.177 | 1.981 | 0.314 | 1.125 |
| Widowed | 0.211 | 2.116 | 0.151 | 0.869 |
| Divorced/Sep. | 0.206 | 2.099 | 0.310 | 1.121 |
| Female | 0.426 | 2.566 | 0.627 | 1.172 |
| Child ≤ 2 yrs old in household | 0.084 | 1.439 | 0.162 | 0.894 |
| Child 3-5 yrs old in household | 0.077 | 1.382 | 0.154 | 0.875 |
| Child 6-13 yrs old in household | 0.144 | 1.823 | 0.287 | 1.096 |
| Child 14-17 yrs old in household | 0.068 | 1.304 | 0.141 | 0.843 |
| Family size | 2.026 | 6.500 | 2.493 | 3.776 |
| Health fair | 0.173 | 1.963 | 0.211 | 0.990 |
| Health poor | 0.068 | 1.309 | 0.099 | 0.724 |
| Number of siblings of head and spouse | 4.391 | 18.187 | 5.947 | 10.550 |
| Age: ≤ 25 | 0.090 | 1.483 | 0.099 | 0.725 |
| 26-30 | 0.120 | 1.686 | 0.171 | 0.913 |
| 31-35 | 0.107 | 1.605 | 0.163 | 0.894 |
| 36-40 | 0.083 | 1.435 | 0.124 | 0.799 |
| 41-45 | 0.042 | 1.046 | 0.057 | 0.560 |
| 46-50 | 0.034 | 0.937 | 0.054 | 0.549 |
| 51-55 | 0.047 | 1.093 | 0.062 | 0.586 |
| ≥ 56 | 0.477 | 2.592 | 0.269 | 1.075 |
| Education: < 11 yrs | 0.363 | 2.495 | 0.486 | 1.211 |
| 12 years | 0.359 | 2.490 | 0.285 | 1.094 |
| More than 12 yrs | 0.277 | 2.323 | 0.229 | 1.018 |
| Other income* | \$12,508 | \$48,134 | \$9,827 | \$21,123 |
| Number of parent-households: One | 0.323 | 2.427 | 0.386 | 1.180 |
| Two | 0.194 | 2.051 | 0.217 | 0.998 |
| Three or four | 0.050 | 1.128 | 0.039 | 0.468 |
| Head's father's education: | | | | |
| Missing | 0.052 | 1.151 | 0.153 | 0.874 |
| Less than 12 | 0.691 | 2.398 | 0.668 | 1.142 |
| 12 years | 0.165 | 1.928 | 0.149 | 0.864 |
| More than 12 | 0.092 | 1.498 | 0.030 | 0.411 |
| Head's married parents' net wealth: | | | | |
| Don't exist# | 0.752 | 2.241 | 0.848 | 0.869 |
| In debt | 0.026 | 0.819 | 0.024 | 0.369 |
| \$0-24,999 | 0.024 | 0.797 | 0.047 | 0.511 |
| \$25,000-99,999 | 0.029 | 0.868 | 0.033 | 0.436 |
| \$100,000-249,000 | 0.072 | 1.345 | 0.034 | 0.439 |
| > \$250,000 | 0.097 | 1.535 | 0.014 | 0.283 |
| Distance to head's married parents: | | | | |
| ≤ 10 miles | 0.111 | 1.630 | 0.085 | 0.678 |
| 10-100 miles | 0.065 | 1.283 | 0.037 | 0.455 |
| More than 100miles | 0.071 | 1.333 | 0.028 | 0.398 |
| Received money | 0.195 | 2.057 | 0.165 | 0.900 |
| Received time help | 0.302 | 2.380 | 0.299 | 1.109 |
| Medically needy dummy | 0.811 | 2.029 | 0.821 | 0.930 |
| Maximum AFDC benefit | \$365 | \$723 | \$322 | \$372 |

*Other income includes all income of the household except government income and familial cash assistance. PSID family weights are used in calculating the above statistics.

Table A2. First Stage (OLS) Estimates of AFDC Income*

| Explanatory variables | Whites | | | | | | Blacks | | | | | |
|--|---------|-----------|----------|-----------|----------|-----------|---------|-----------|----------|-----------|----------|-----------|
| | Model 1 | | Model 2* | | Model 3* | | Model 1 | | Model 2* | | Model 3* | |
| | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. | Coeff. | Std. Err. |
| State-specific maximum AFDC benefit conditioned on family size | .7118 | .1130 | --- | --- | .2765 | .2504 | 4.483 | .2365 | --- | --- | 4.494 | .5431 |
| Medically needy program dummy | -42.709 | 41.916 | --- | --- | 41.41 | 52.56 | -456.11 | 88.313 | --- | --- | -189.5 | 152.68 |
| R-squared | .0214 | | .1654 | | .1669 | | .1683 | | .3427 | | .3689 | |
| Mean of dependent var. | | | | | | | \$97 | | | | | |

*In addition to the covariates listed above, Models 2 and 3 contain all regressors listed in Table 4 except AFDC income. Model 3 is used as the first stage regression for the estimates reported in Table 4.

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