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ABSTRACT

This report presents results from a comprehensive study of child support issues. Using information from three data bases, the following findings emerged: (1) marital status is a strong predictor of receipt of welfare and child support; (2) socioeconomic characteristics of the mother and her family influence welfare and child support outcomes; (3) employed mothers are less likely to receive child support and mothers receiving child support are less likely to receive welfare; (4) the income level of the absent father has a strong influence on whether child support payments are received; (5) some success has been made in locating absent parents, especially those who are legally married, but success with enforcing their support payment orders is mixed; (6) court ordered agreements are associated with greater probability of receiving child support payments; (7) intercepting state tax refunds for child support payments has been successful; and (8) automated procedures to monitor cases are efficient. Data are presented in 35 tables and six appendices. (VM)

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Child Support and Welfare: An Analysis of the Issues

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SRI International

Child Support and Welfare: AN ANALYSIS OF THE ISSUES

Final Report

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EXECUTIVE SUMMARY

This report presents results from a comprehensive study of child support issues. The study was supported by the Office of Research and Statistics of the Social Security Administration under grant number 18-800174. The study has four main components:

1. An examination of the socioeconomic characteristics of single mothers that influence whether child support is awarded, whether child support is received, the amount of child support received, and whether child support payments are made regularly.

2. An investigation of the relationship between AFDC recipiency and child support recipiency, and of how socioeconomic characteristics of single mothers interact with welfare status and the receipt of child support.

3. An investigation of what types of AFDC mothers are more likely to receive services from the Child Support Enforcement Program (referred to as IV-D services). This component of the study also investigates what socioeconomic characteristics of AFDC recipients affect the success of the IV-D services.

4. An estimation of a) the impact of providing IV-D services to AFDC families and b) the impact of various state administrative and legal child-support-enforcement procedures on both AFDC and non-AFDC families.

Data for this study were obtained from three sources. The merged March-April 1979 Current Population Survey (CPS) contains comprehensive data on child support awards, receipt and characteristics of the absent father for a nationally representative sample. The 1979 AFDC Recipient Characteristic Study contains information on child support receipt and the provision of IV-D services to AFDC women. The Employment Opportunity Pilot Projects (EOPP) Baseline Survey includes data on monthly child support receipt over 21 months for a sample of low-income women. The EOPP data are particularly useful in examining the regularity of child support payments.

Some of the major findings of this study are as follows:

- Marital status is a strong predictor of receipt of welfare and of child support. Divorced mothers are much more likely to receive child support and much less likely to receive welfare than are mothers who have never been married. According to the CPS results, unwed mothers have almost a 50% chance of being on welfare and less than a 10% chance of receiving child support. Divorced mothers, on the other hand, have only a 30% chance of receiving welfare and more than a 50% chance of receiving child support.

- The lack of a child support award seems to be the major factor responsible for generating these differences in child support receipt. Only 12% of never married mothers have a child support award while 70% of divorced mothers have an award. Among all groups having a child support award, the CPS data indicate that 75% actually receive child support payments. These results imply that establishing child support obligations is the major policy action required to increase child support recipiency rates. Any attempt to increase child support collections through a general system of wage withholding, while likely to have some impact on recipiency rates, may be of limited success unless new methods of increasing the amount of obligations established are also developed.

- The longer the mother is a single parent, the more likely she is to go on welfare and the less likely she is to receive child support. If this is due to a lessening of the emotional bond between the father and his children, increased efforts to maintain this bond (perhaps through liberalized custody and visitation arrangements or through specialized counseling sessions) could potentially improve the economic well-being of single parent families.

- Socioeconomic characteristics of the mother and her family exert a strong influence on the various AFDC and child support outcomes. The data consistently show that older, more educated women are less likely to receive welfare and more likely to receive child support than younger less educated women.

- Our investigation of the regularity of child support receipt found some inconsistencies between the two samples used for this analysis. The CPS sample indicated that blacks, mothers who were married more than once, and mothers who were married a short period of time were less likely to receive regular child support payments. The EOPP sample indicated that younger and less educated mothers were less likely to receive regular payments. Both samples indicated that employed mothers are less likely to receive regular support payments although it is unclear whether their employment is a result or a cause of receiving child support irregularly.

- The investigation of the association between child support receipt and welfare receipt indicates that single mothers receiving child

support are significantly less likely to receive welfare than single mothers who receive no child support. However, our results suggest that many of the characteristics that determine welfare recipiency also influence (in the opposite direction) whether or not a family receives child support. Child support alone has a fairly limited impact on welfare recipiency. Part of the reason for such a relatively small impact of child support may be low award amounts. Data from the CPS indicate the average monthly child support award amount is about two-thirds the average monthly AFDC benefit. Hence, child support alone is not sufficient to cause the average mother to become ineligible for welfare. Higher award amounts and/or other sources of income (such as higher earnings) appear necessary to significantly reduce welfare dependency.

- The level of the absent father's income (as reported by the mother) has a strong influence on whether child support is received and whether it is received regularly. Programs to enhance the earnings capacity of absent fathers may be effective in increasing child support recipiency and decreasing welfare dependency for single mothers.

- The investigation of which families receive IV-D services indicates that large families are most likely to receive paternity establishment services, parent locator services and have a support agreement established. The success rates of paternity establishment and parent locator services are greater for larger families, but the success rate for enforcement actions is significantly lower. These results suggest that IV-D agencies are targeting their activities to larger families that receive larger welfare grants, but that fathers may be trying harder to avoid the larger support obligations.

- The marital status of the parents was by far the strongest determinant of whether a case received IV-D services and the success of those services. Although marital status had relatively little impact on whether paternity establishment actions were taken, virtually all such actions for children of divorced parents were successful, while only 42% of paternity establishment actions for children of unmarried parents were successful. Children of unmarried parents were less likely to receive parent locator services, and only 36% of actions that were taken resulted in successful location of the father, compared to 71% of the parent locator actions for children of divorced parents. Further, only 28% of children of unmarried parents have an IV-D enforcement action compared to 57% of children of divorced parents, and the success rate of enforcement actions was lower as well for children of unmarried parents. These results highlight the problems IV-D agencies face in collecting child support for children of unmarried parents, who comprise over 50% of the AFDC caseload.

- The investigation of the impact of receiving IV-D services on child support receipt indicates that paternity establishment services are associated with a significant increase in child support receipt.

This impact is due to the fact that paternity establishment allows other IV-D services, such as parent locator and enforcement actions, to be provided.

- Parent locator services are estimated to have a significant impact on the receipt of child support. Although some of this impact is due to the increased probability that child support awards can be established and successfully enforced, the successful location of the father, in and of itself, has an independent impact on whether fathers pay child support.

- The establishment of child support agreements and actions to enforce those agreements have very significant impacts on child support receipt. These results may be an overstatement of the true effect because it is likely that IV-D agencies target enforcement activities to cases that are more likely to receive support and that some of the families may have received support on their own. On the other hand, we cannot estimate with the data available the number of families that stopped receiving welfare because IV-D actions were so successful that they became ineligible for AFDC. Because of these two factors we cannot estimate the size of the impact of enforcement actions with certainty, but the evidence suggests that the impact on child support receipt is substantial.

- Court ordered agreements were associated with somewhat greater probability of receiving child support than were other types of agreements, and actions to enforce court-ordered agreements were somewhat more successful. These results are in contrast to results using the CPS sample that indicated court ordered agreements to be less successful, even for AFDC recipients. Part of the differences may be due to differences in the accuracy with which the type of agreement is measured, but evidence on the relative impact of court ordered and other types of child support agreements is ambiguous.

- The investigation of the impact of state administrative and legal procedures indicates that intercepting state tax refunds for fathers that owe child support has a significant impact on the receipt of child support for both AFDC families and for the population of single mothers as a whole. This result suggests that the recently enacted federal tax intercept is likely to have a significant impact on the number of families that receive child support payments.

- The use of automated procedures to monitor cases appears to be particularly efficient: automated procedures increase the number of successful enforcement action at the same time that they decrease the total number of enforcement actions initiated.

I Introduction

Over the past 20 years there has been a substantial increase in the number of families headed by single parents, due to both a rise in the divorce rate and a rise in the proportion of illegitimate births.* The increase in the number of children living with only one parent has brought increased public concern over the issue of child support from the absent parent, including how to determine equitable support arrangements and how to enforce payment of support. This issue is particularly important because many single-parent families lack the financial resources to be self-sufficient. In 1978, for example, 42% of the families headed by single women with children had incomes below the poverty level.** Without adequate support from the absent parent, many single-parent families rely on welfare.

The changing nature of, and large increase in, the AFDC population reflect this demographic trend. Although the program was originally introduced to aid children impoverished by the death of their father, only a small fraction (approximately 2%) of the current AFDC population is eligible due to death of a parent (see Table I.1). Hence, virtually all AFDC cases

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*Over 1 million divorces occur annually in the United States (compared with about 2 million marriages) and the rate of illegitimate births increased from 10.7% in 1970 to 17.1% in 1979. It has been estimated that by the year 2000, only one-half of the children born in the United States will have spent their entire childhood living with both natural parents (see Daniel Patrick Moynihan, "Children and Welfare Reform", The Journal of the Instritute for Sicioeconomic Studies, Vol. 6, No. 1, Spring 1981, pp. 1-20.

**U.S. Department of Commerce, Bureau of the Census, Characteristics of the Population Below the Poverty Level: 1978, Current Population Reports, Series P-60, No. 124.

Table I.1

COMPOSITION OF THE AFDC CASELOAD
(March, 1979)

Number of single parent families receiving AFDC	3.1 million
Situation of father	
Deceased	2%
Absent from home	98%
Parents divorced	19%
Parents legally separated	3%
Parents non-legally separated	21%
Unmarried mother	49%
Other	8%
Fathers whereabouts unknown	47%
Child support awarded*	30%
Average monthly award per family	$117
Child support paid	12%

*By court order (27%) or other legal agreement (3%).

Source: 1979 AFDC Recipient Characteristics Study.

involve an absent father and almost one-half involve a father never married to the mother.*

In recent years, most attempts to reduce welfare dependency have centered on increasing the employment of the custodial parents (e.g., the WIN program). While changes in the AFDC program to increase employment of the custodial parent may have had an impact on welfare dependency, they have raised important and difficult trade-offs pertaining to the well being of the mother and her children (issues of child care availability, cost, and quality and providing adequate work incentives for all AFDC mothers). An alternative to shifting financial responsibility for dependent children onto the custodial parent is to attempt to collect child support from the absent parent. The figures in Table I.1 indicate the potential for reducing welfare costs and the difficulties in collecting support from absent parents. Only 30% of the AFDC cases have a child support award and in only 12% of the cases is any payment made.**

Clearly, there are a large number of absent fathers who are contributing nothing to the support of their children. The problems encountered in collecting such support, however, are reflected in the fact that almost half of the children had parents who were not married. In some instances, paternity is consequently in dispute. Furthermore, in 47% of the cases the whereabouts of the father is reported as unknown, although the

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*We exclude two-parent AFDC cases from these calculations. Approximately 9% of the total AFDC caseload (one and two parents) consists of families in which the father is unemployed, incapacitated, or in the armed forces.

**The 12% figure refers to the survey month (March 1979). The other data sources examined in this study measure receipt of child support over a given year and thus yield somewhat higher recipiency rates. As will be indicated later, the fraction of AFDC families in the CPS reporting regular receipt of child support is roughly equivalent to the fraction of AFDC families reported as receiving child support in the survey month in the AFDC Recipient Characteristics Study. However, possible reporting errors for AFDC recipiency in the CPS may make figures from the two sources noncomparable.

true percentage of missing fathers may be less because there exist incentives for mothers to conceal this information (see the discussion below).

I.1 The Child Support Enforcement Program

Although the Child Support Enforcement program was not enacted until 1975, concern for enforcing child support obligations as a means of controlling program costs has existed throughout the history of the AFDC program. As far back as 1950, Congress passed legislation requiring state welfare agencies to notify appropriate law enforcement officials if children receiving welfare were either deserted or abandoned by a parent and to require the mother to take legal action against the father. Despite supporting legislation to facilitate such efforts--such as the Uniform Reciprocal Enforcement of Support Act (URESA), which made it legal to sue an absent parent for support in another state without actually being present in the absent parent's state--the notification procedure had little impact on the problem.

One reason for this lack of impact was the fact that the mother's refusal to cooperate could not be used to deny welfare benefits to her or her family. Coupled with the fact that welfare benefits were reduced on a dollar-for-dollar basis with the amount of child support received, little incentive existed for her cooperation. In fact, it is likely that there was a strong incentive not to do so; while such cooperation yielded her no financial benefits, there was the possibility that lengthy court battles required for obtaining an order directing child support from the absent father could be emotionally and physically draining. Furthermore, it is likely that the 100% benefit reduction rate may well have induced mothers actually receiving child support payments to conceal them from the AFDC program, because there is no financial gain from reporting receipt of such benefits.

Further attempts in the mid 1960s to enforce child support obligations also had relatively little impact. In 1965 and 1967, Congress passed legislation enabling state and local welfare agencies to obtain addresses and places of employment of absent parents from the Secretary of Health, Education, and Welfare (now Health and Human Services) and from the Internal Revenue Service. In addition, the 1967 legislation required states to establish organizational units to establish paternity and secure support for families with illegitimate children, a rapidly growing segment of the AFDC population. Many states placed low priority on implementing these provisions. Furthermore, cooperation with the IRS was limited to AFDC cases in which there was a court order for child support, and tracking was done only on an individual case basis.

To remedy some of the problems of early legislation, the Child Support Enforcement (CSE) program was enacted as a new Part D of Title IV of the Social Security Act.* The IV-D program, primarily a state program, with significant Federal involvement and Federal funding, requires each state to develop a child support enforcement program that provides the following services: (1) establishing paternity, (2) locating absent parents, (3) establishing support obligations, and (4) enforcing such obligations. The states are required to provide these services to all AFDC families and to non-AFDC families who request such services, although a fee can be charged to the latter families.** To facilitate collection across states, a Federal Parent Locator Service was established with access to Federal data files on individuals, including Social Security Administration earnings records and Internal Revenue Service tax records. States are also given financial incentives for cooperating with one another.

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*A detailed discussion of the legislative history of Title IV-D is given in Department of Health, Education, and Welfare, Office of Child Support Enforcement, First Annual Report to Congress on the Child Support Enforcement Program, June 30, 1976.

**The Tax Equity and Fiscal Responsibility Act of 1982 repealed the mandatory fee for providing IV-D services to non-AFDC families originally established as part of the Omnibus Reconciliation Act of 1981.

The 1975 legislation requires each state to develop a federally approved plan for the operation of its programs. Currently, states receive reimbursement of 70% of the costs incurred for providing child support services, excluding certain court costs.* States are also eligible for 90% federal matching funds for certain program activities, such as the development of automated management information systems.

In one departure from earlier legislation, the provisions of the CSE program explicitly require mothers to cooperate with agency officials as a condition of eligibility for welfare benefits. Furthermore, all welfare recipients must assign support rights to the IV-D agency in their state. However, it should be noted that despite these provisions, there still remains no financial incentive for mothers to cooperate with agency officials; none of the child support payments received by the state are given to the mother. The incentives exist only for the states which, by securing the support payments, are able to reduce their overall AFDC program costs.

It is also important to note that many states had operational child support enforcement programs prior to 1975. Only about one-half of the states required new legislation in order to implement fully the provisions of the 1975 Act. What made the 1975 Act a landmark is that it brought about a coordination of a diverse set of programs operating in a range of legal, economic, and political environments and assigned the Federal government specific responsibilities for carrying out the objectives of the legislation.

Since its inception, the IV-D program has grown steadily. Table I.2 showed this growth for both the AFDC and non-AFDC components of the program. As this table indicates, child support collections on behalf of AFDC families totaled almost $800 million in 1982 and represented close to

*Prior to October 1, 1982, the reimbursement rate was 75%.

7% of AFDC benefits paid. The non-AFDC component, although serving significantly fewer families, collected almost $1 billion in 1982.*

In its most recent annual report to Congress, the Office of Child Support Enforcement has expressed concern that growth in the program has tappered off.** The extent to which growth will occur in the future may hinge on whether new mechanisms are developed for establishing child support obligations and for collecting child support. The recently enacted Federal Income Tax Refund Offset Program, similar programs at the state level, and proposals to use the general withholding system to collect child support will all undoubtedly play an important role in determining future growth in the IV-D program.***

I.2 Previous Research

Compared with many other issues in the AFDC program, relatively little research has been conducted on the Child Support Enforcement program and on the effectiveness of collection procedures. Several studies have evaluated

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*Data for the non-AFDC component should be viewed cautiously because they are suspected to be highly inaccurate, possibly overstating collections by as much as several hundred million dollars. See U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, Evaluation of the Child Support Enforcement Program, second year final report prepared by Maximus, Inc., April 1982.

**U.S. Department of Health and Human Services, Office of Child Support Enforcement, 7th Annual Report to Congress for the Period Ending September 30, 1982, p. 3.

***Section 2331 of the Omnibus Reconciliation Act of 1981 (P.L. 97-35) authorizes the Internal Revenue Service to withhold federal income tax refunds for persons seriously delinquent in child support payments to AFDC families. As of 1982, nine states had similar programs for state tax refunds and 16 states had laws to withhold Unemployment Insurance benefits from currently delinquent absent parents. Several proposals are pending in Congress to establish mandatory wage withholding systems for court ordered child support.

Table I.2

GROWTH IN THE CHILD SUPPORT ENFORCEMENT PROGRAM
1976-1982

Fiscal Year	AFDC Component				
	Caseload (absent parents, in millions)	Collections made (millions)	Collections as a percentage of AFDC benefits paid	Caseload (absent parents, in millions)	Collections made (millions)
1976	1.9	$204	2.0%	N.A.	$30[illegible]
1977	3.5	423	4.0	N.A.	44[illegible]
1978	3.5	472	4.4	.6	57[illegible]
1979	4.1	597	5.8	.7	737
1980	4.6	603	5.5	.9	87[illegible]
1981	5.1	671	5.7	1.2	952
1982	5.5	787	6.8	1.5	984

N.A. = Not available

Sources: U.S. Department of Health and Human Services, Social Security Administration, Office of Child Support Enforcement, Child Support Enforcement, 5th Annual Report to Congress, December 31, 1980 and 7th Annual Report to Congress, December 31, 1982.

specific procedures, either through demonstrations, or through cost-effectiveness studies.* However, no systematic study of these procedures exists at the national level. Furthermore, little is known about who receives the services of the IV-D agencies and whether these services vary across different types of families.

On a broader perspective, there is also little known about how socioeconomic characteristics of families are related to receipt of child support.** More importantly, little is known about how receipt of child support affects welfare dependency, and how socioeconomic characteristics interact with receipt of child support to affect welfare dependency.

This study, which provides a comprehensive analysis of child support issues, was funded by the Office of Research and Statistics of the Social Security Administration in order to initiate research on the determinants of receipt of child support and the relationship between receipt of child support and welfare dependency.

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* For example, see Coopers and Lybrand, "Development of a Model Parent Locator Service System" project funded by the Division of Family Assistance Studies, Social Security Administration, University of Southern California, Center for Health Services Research, "Comparative Analysis of Court Systems Procedures and Administrative Procedures to Establish and Enforce Child Support Obligations," September 1979, and New York State Department of Social Services, "The Cost Effectiveness of Enforcing Title IV-D Related Family Court Support Warrants," project funded by the Division of Family Assistance Studies, Social Security Administration.

** Three studies that have been conducted on this subject include Judith Cassetty, Child Support and Public Policy, Lexington, Massachusetts, Lexington Books, 1978, Maurice MacDonald, "Collecting Child Support for AFDC Mothers: An Empirical Analysis," Institute for Research on Poverty Discussion Paper No. 564-79, University of Wisconsin, September 1979, and Annemette Sorensen and Maurice MacDonald, "Child Support: Who Pays What to Whom?" unpublished paper, April 1981. The Cassetty study uses the Panel Study of Income Dynamics and the other two studies use data from the 1975 and 1977 AFDC Recipient Characteristics Surveys.

I.3 Goals of this Study

Our analysis centers around four major substudies, including examinations of (1) the relationship between socioeconomic characteristics of families and various child support outcomes, (2) the relationship between AFDC recipiency and the receipt of child support, (3) who gets different types of IV-D services, and (4) the effects of IV-D services on various child support outcomes.

I.3.1 Relationship Between Socioeconomic Characteristics and Child Support Outcomes

The first major issue to be addressed is the identification of population groups for which there are measurable characteristics associated with the probability of receiving child support, the amount received, and the frequency of receipt.

Previous literature suggests that socioeconomic variables such as age, education, income, work experience, and family structure are all likely to be important determinants of the receipt of child support. Frequently these characteristics form the basis of court awards in marital dissolution cases and are, therefore, likely to be important for both the custodial and the absent parent. In addition, these variables are also likely to be important for determining payments under voluntary agreements between the affected spouses.

In addition to the above variables, characteristics of the marital (or living) arrangement between the two parents are likely to be important determinants of the receipt of child support. Such characteristics include whether the couple was legally married (as a proxy for the difficulty of establishing paternity), length of time married, and length of time since the marriage ended. Previous literature suggests that child support is lower among couples that were not previously married and is higher among couples that were married longer. Child support also tends to decline over

time as the absent parent begins to take on new financial responsibilities and loses emotional attachment to his previous family.

In Section III.1, we present a detailed analysis of how socioeconomic variables affect various child support outcomes. We examine three different data sets in performing the analysis. These data sets, and the samples we use, are described in Section II.

I.3.2 Relationship Between AFDC Recipiency and Receipt of Child Support

The second major issue addressed in this study concerns the relationship between receipt of child support and AFDC recipiency. For public policy, the main question is the extent to which IV-D activities affect AFDC recipiency through securing child support payments. Examples of important questions on this subject that we address in this substudy include:

- Does lack of child support affect the likelihood of a family receiving welfare benefits?
- Do factors influencing welfare dependency also affect receipt of child support?
- How do socioeconomic characteristics of families interact with receipt of child support to affect welfare recipiency and vice versa?

The results of this analysis are presented in Section III.2.

I.3.3 Who Gets IV-D Services

The third major issue we address concerns the relationship between socioeconomic characteristics of AFDC families and receipt of various IV-D services. We examine how IV-D programs target their efforts to families with various demographic and employment charateristics, marital histories, and welfare histories. We also examine the impact of these case characteristics on the success of IV-D actions. This analysis is presented in Section III.3.

I.3.4 Impact of IV-D Services on Various Child Support Outcomes

The final issue addressed in this study concerns the impact of IV-D services and various administrative practices and collection procedures on the receipt of child support. Our analysis of this issue will focus on the AFDC population.

There are two components to this analysis. The first examines whether providing paternity establishment and parent locator services, establishing child support agreements, and providing actions to enforce agreements increases the probability that AFDC families receive child support payments.

The second component takes an aggregate approach. We examine whether differences in state administrative and legal child support enforcement procedures have an impact on the number of families, both AFDC and non-AFDC, that receive child support. We also examine the impact of these state procedures on the success of IV-D enforcement actions. The results of these analyses are presented in Section III.4.

In the following section, we describe the data and estimation methodology used in this study.

II Data and Empirical Models

Three data sets are used to conduct the analyses reported in this study. Each of these data sets has strengths and weaknesses for carrying out particular types of analyses. In this section, we describe the three data sets, indicate the usefulness of each data set for achieving the overall objectives of the study, and discuss the criteria used to select the samples used for the analyses.

II.1 1979 Current Population Survey (CPS)

The most important data set we use is the merged March-April 1979 Current Population Survey (CPS). This data set represents the richest source of information on child support arrangements currently available for a nationally representative sample. Therefore, it plays a major role in our analysis. The CPS is particularly useful for assessing the importance of family characteristics and the nature of child support arrangements on the receipt of child support and AFDC recipiency. It is the only data set that has information on the economic obligations and resources of the absent father, although this information is likely to contain considerable measurement error because it is provided by the mother. In addition, because it is a national sample, the CPS data set will be useful for assessing the effects of IV-D state program variables on various child support outcomes.

Because the CPS uses a rotating sample, only 75% of the respondents to the April child support supplement are included in the merged file. Approximately 10% of the 41,000 eligible women in the merged file had their child support and alimony information imputed on the basis of fully

reported cases. This imputation slightly reduces the statistical power of the tests we perform with these data.*

One potential problem with utilizing the CPS data to study the receipt of child support is that there may be significant underreporting of child support by women on AFDC, because AFDC women assign their child support rights over to the state IV-D agency. Thus, AFDC women might not be aware that child support payments are being made for them. It is important to note that this underreporting occurs from lack of knowledge, rather than from the type of underreporting that may occur in the AFDC case study sample, where there is a direct financial incentive to underreport in order to increase the size of the AFDC benefit.**

To some extent, the importance of the problem of underreporting child support in the CPS file can be assessed because another question in the survey asks the mother whether she is entitled to child support and if so, whether the payment is to be received by her or through a court or public agency. Including a variable in the empirical analyses that denotes to whom the payment is supposed to be made will partially control for biases created by underreporting of this type.

Another potential problem with utilizing the CPS data is the underreporting of AFDC status. It has been estimated that the CPS understates the number of AFDC recipients by somewhere between one-quarter

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*We have not made any adjustments in the statistical reliability of ou results to account for the imputations. This should be kept in mind when reading the subsequent sections. A full discussion of the imputation procedures along with a discussion of the sample and the data are presented in U.S. Department of Commerce, bureau of the Census, Child Support and Alimony: 1978, Current Population Reports, Special Studies, Series P-23, No. 112, September 1981.

**If the mother is concealing contributions from the absent father, this information may ultimately become known if IV-D efforts to locate the absent father are successful.

and one-third.* However, it is not known with certainty whether the unidentified AFDC families are random with respect to receipt of shikd support. If they are, none of the results presented in this study will be biased.

II.2 1979 AFDC Recipient Characteristics Study (AFDC)

The second data set we use is the 1979 AFDC Recipient Characteristics Study. The information in this data set is based on a sample of approximately 1% of the number of AFDC recipients in each state and was collected by AFDC caseworkers.**

The main feature of the AFDC file that makes it a useful source for analysis is that it contains information on the utilization of IV-D services by AFDC families. Hence, it represents the only data source available for directly measuring the influence of the IV-D program on various child support outcomes, such as whether there is an award, the amount of the award, whether child support is received, and amount received, and whether child support is received on a regular basis.

In addition to investigating IV-D practices and their effects on various child support outcomes, we will also use the AFDC file to examine the effects of socioeconomic characteristics on the various outcome

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*This estimate is based on a comparison of the weighted count of AFDC families in the CPS with the number of AFDC families derived from actual program records. We are gratified to Richard Allen for point out this potential source of bias and to Howard Iams for giving us estimates of the potential size of the undercount. It should also be noted that the number of teenage mothers in the CPS is thought to be undercounted by as much as 50%. Our results for unwed mothers appear to be consistent across all data sets examined.

**A description of the survey is given in Division of Family Assistance Studies, Office of Research and Statistics, Social Security Administration, Documentation for the 1979 Recipient Characteristics Study.

measures. Such an examination will be useful because it will allow us to draw comparisions regarding the consistency of the effects of socioeconomic characteristics across various data sets.

II.3 1979-1980 Employment Opportunity Pilot Projects Baseline Survey (EOPP)

The third data set we use in our analyses is the baseline survey conducted as part of the Employment Opportunity Pilot Projects (EOPP).* The EOPP baseline survey was conducted by Westat, Inc. The sample includes 10 program sites and 10 comparison sites that are geographically dispersed throughout the United States. These sites are listed in the Appendix to this section, along with the sample sizes in each site. The baseline survey was administered in April through October 1980 and covers the period January 1, 1979 through the date of the interview. approximately 2,000 families in each pilot site and 1,000 families in each control site were interviewed, giving a total of approximately 30,000 observations available for analysis.

Within each site, the EOPP sample is a stratified random sample of each area's total population. Low-income families with children were oversampled. Thus, the sample has a somewhat larger proportion of AFDC families than the population as a whole. Although the sites were not chosen randomly, sample weights are available so that these data can be reweighted to represent the entire population of the United States. We do not perform such a reweighting procedure in this study.

The EOPP file has two major advantages that make it a useful supplemental source for analysis. First, socioeconomic characteristics similar to those available in the CPS and AFDC data sets are available. Second, monthly data on receipt of child support are available for almost a

*For a description of EOPP, see Employment and Training Report of the President, 1981.

2-year period, enabling an analysis of how family conditions affect the regularity of payments.

The EOPP data set has several limitations for analyzing issues related to child support, however. First, it only has information on whether child support was received and the amount received, but not on child support entitlements. Second, like the CPS data set, child support may be underreported for AFDC recipients because families may be unaware of payments made through IV-D agencies. Third, the relevant question in the EOPP survey for our purposes combines child support and alimony, unlike the CPS, which separates the two items. The combining of child support and alimony is not a serious problem from a statistical standpoint, however, because less than 2% of the sample of women with children report receiving only alimony. Moreover, the distinction between child support and alimony is often a tenuous one in practice for families with children because it is unlikely that mothers who receive alimony do not receive child support. Hence, the EOPP survey is likely to measure quite accurately whether a family receives child support, but probably overstates the amount.

Table II.1 summarizes the child support information available in the three data sets. In addition, we collected supplementary data on IV-D program characteristics by state which we have added to each data file.

II.4 Selection of the Analyses Samples

Because an important objective of our study is to focus on the relationship between receipt of child support and welfare dependency, we restrict our analyses to mothers who were unmarried at the time of the surveys.* Table II.1 shows how the analyses samples were selected.

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*This eliminates a large number of women in both the CPS and EOPP data sets (including those in the AFDC-UP program). In subsequent work, we plan to analyze currently married mothers and compare the results to those obtained for currently single mothers.

Table II.1

SUMMARY OF CHILD SUPPORT INFORMATION AVAILABLE FROM VARIOUS DATA SOURCES

Merged March-April 1979 CPS	1979 AFDC Recipient Characteristics Study	1979-1980 EOPP Survey
1. Marital status of mother	1. Marital status of mother	1. Marital status of mother
2. Number and ages of children	2. Number and ages of children	2. Number and ages of children
3. AFDC recipiency	3. Parenthood of children	3. AFDC recipiency
4. Parenthood of children	4. Type of agreement (number of each type)	4. Receipt of child support and alimony
5. Type of child support agreement (voluntary, court order, other)	5. Whether entitled to payment and amount	5. Regularity of payments (monthly data from Jan. 1979 to Oct. 1980)
6. Whether entitled to payment in 1978 and amount	6. Source of entitlement	6. Average amount received per month
7. Source of entitlement (father, court, or public agency)	7. Actual receipt during study month	
8. Actual receipt of payment in 1978	8. Total amount entitled (monthly)	
9. Regularity of payments	9. Whether IV-D case	

Table II.1 (concluded)

Merged March-April 1979 CPS	1979 AFDC Recipient Characteristics Study	1979-1980 EOPP Survey
10. Reason for irregular payments (father deceased, institutionalized, refused to pay, location unknown)	10. Total amount owed to IV-D agency from absent father	
11. Total amount entitled to in 1978	11. Who support is paid to (IV-D or law enforcement)	
12. Total amount received in 1978	12. Whether paternity has been established (each child)	
13. Type of property settlement	13. Whether absent father has been located (each child)	
14. Net value of property settlement	14. Whether support obligation is being enforced (each child)	
15. Whether absent father has other children	15. AFDC payment characteristics	
16. Total income of absent father in 1978	16. Income by source	
17. Total income of mother by source	17. Location of absent father	
18. Regularity of child support payments		

For the CPS data set, a deficiency in the structure of the child support supplement resulted in the inclusion of several single mothers who were very old. This occurred when there were children in the household under the age of 20 who were not the children of the mother in question. This situation may have arisen, for example, if the grandmother has custody of the children from a dissolved marital or living arrangement. We used information from other parts of the survey to exclude these mothers but the exclusion was imperfect in cases where the mother was not the head of household.

The AFDC data set contained a significant number of cases with missing information on key variables. When information was missing on an outcome variable, we were forced to exclude such cases from the analysis sample. When information was missing on an explanatory variable, we included the case in the analysis and specified a variable indicating that information on that variable was missing.*

The basic samples we analyze consist of 2,299 women in the CPS data set, 15,116 women in the AFDC data set, and 3,749 women in the EOPP data set. As indicated in Table II.2, we also performed analyses on various subsamples within each data set.

*This procedure corrects the results for cases where information is not missing and allows us to determine whether cases with missing information are systematically related to the outcome variables. The procedure is somewhat more general than simply substituting in mean values over observed cases because it allows the missing cases to have a different impact.

Table II.2

SELECTION OF THE ANALYSES SAMPLES

CPS Data	
Full CPS sample of mothers over the age of 18	40,981
Mother not currently married and either never married with at least 1 child under 20 in the household or previously married with at least 1 child under 20 in the household from the most recent marital dissolution	2,900
Youngest child of family head under 19 years of age or years since dissolution less than 19	2,299
Had a child support award	1,198
Due child support in 1978	1,056
Received child support in 1978	794
EOPP Data	
Full EOPP sample of families	29,620
Familied headed by women aged 16 or older, not currently married. with at least 1 child aged 21 or under in the household as of the data of the survey	4,115
Families meeting the above criteria in 1979	3,749
Families receiving child support or alimony in 1979	875

Table II.2 (concluded)

AFDC Data

Full AFDC survey sample of cases	23,926
At least 1 absent parent associated with case, natural mother in home, at least 1 child in case with an absent father where mother is not currently married, and not in Puerto Rico or the Virgin Islands	17,807
Cases with valid data on receipt of child support	15,116
Cases with valid data on award of child support	14,367
Cases with an award	4,594
Cases with valid data on award and receipt amounts	4,067

II.5 Empirical Models

Except where indicated otherwise, we perform standard regression analyses in this study.* The basic form of the regresion model is as follows:

$$y = xb + e, \qquad (1)$$

where

y = the outcome variable of interest,

x = the explanatory variables,**

b = the estimated coefficients representing the marginal effects of the explanatory variables,***

e = a random error term.

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*The only instance in which standard regression analyses is not used is in Section III.2.2 where we employ a statistical procedure called the multinomial logit model.

**When the explanatory variables are dummy variables, one group must be omitted from the equation to avoid perfect collinearity with the constant term. The omitted group for the relevant variable is indicated in the tables reporting the results.

***These regression coefficients are to be distinguished from "beta" coefficients (or standardized regression weights) which are coefficients for standardized regression variables. For a discussion of the differences between "beta" coefficients and ordinary regression coefficients, see Arthur S. Goldberger, Econometric Theory, John Wiley and Sons, New York, 1964. Beta coefficients are extensively used in psychological statistics but are rarely used in econometrics. Beta coefficients can be derived from the results presented in this study and the appropriate data for computing them is available upon request from the authors.

For most analyses, we present the estimated coefficients of all variables included in the regression equation. We also present basic summary statistics for each regression equation.

In addition to presenting regression coefficients, we also present predicted values of the outcome variables for certain hypothetical mothers in our samples. These predictions will allow the reader to assess the importance of the explanatory variables on the outcome measures. The predictions are generated using the following formula:

$$y^* = x^* b \cdot , \qquad (2)$$

where

y^* = the predicted value of the outcome variable,

x^* = the characteristics of the hypothetical mother.

Usually, we calculate the predictions at the sample averages of all explanatory variables other than the one for which we are interested in assessing the quantitative impact.

APPENDIX TO SECTION II

AREAS COVERED BY EOPP BASELINE HOUSEHOLD SURVEY
(Sample Sizes in Parentheses)

	Program Sites	Comparison Sites
1.	Lowell, Mass., SMSA (N=2,051) Lowell city Billerica town Chelmsford town Dracut town Tweksburg town Tyngsbo rough town Westford town Pelham town (N.H.)	Brockton, Mass., SMSA (N=998) Easton town Avon town Brockton city Bridgewater town East Bridgewater town Halifax town West Bridgewater town Whitman town
2.	Union County, N.J. (N=1,645) (including Elizabeth city)	Camden County, N.J. (N=1,043) (including Camden city)
3.	Mobile, Ala. SMSA (N=1,845) Mobile Coun: Baldwin Coun., Escambia County	Birmingham, Ala., SMSA (N=1,007) Jefferson County Shelby County Walker County
4.	Part of Eastern Kentucky (N=1,915) Pike County	Part of Balance of Virginia (N=978) Buchanan County Dickinsen County
5.	Columbus, Ohio, SMSA (N=1,843) Delaware County Fairfield County Franklin County Madison County Pickaway County	Toledo, Ohio, SMSA (N=979) Fulton County Lucas County Ottawa County Wood County Monroe (Michigan) County

6.	Baton Rouge, La., SMSA (N=2,223) Ascension parish East Baton Rouge parish Livingston parish West Baton Rouge parish	Beaumont-Port Arthur, Tex., SMSA (N=901) Hardin County Jefferson County Orange County
7.	Corpus Christi, Tex., SMSA and balance of consortium (N=1,965) Arkansas County Bee County Brooks County Duval County Jim Wells County Kenedy County Kleberg County Live oak County McMullen County Nueces County Refugic County San Patricio County	San Antonio, Tx., SMSA and balance of consortium (N=949) Bexas County Comal County Guadalope County Dewitt County Gonzalez County Karnes County Victoria County Wilson County
8.	Part of balance of Missouri (Planning Div. XIII) (N=1,884) Chariton County Saline County Johnson County Lafayette County Carrol County Pettis County	Part of balance of Missouri (Planning Div. V) (N=919) Bollinger County Cape Girardeau County Iron County Perry County St. Francois County Ste. Genevieve County
9.	Long Beach, Calif. (N=2,196) Long Beach city	Hawthorne-Inglewood, Calif. (N=1,156) Hawthorne city Inglewood city
10.	Part of balance of Wash. (Planning Div. 2 and 6B) (N=2,015) Grays Harbor County Pacific County	Part of balance of Wash (Planning Div. 3A and 3B) (N=1,092) Skagit County Whatcom County

III. Empirical Results

We now present the results of our empirical analyses. The findings are presented for each of the 4 main studies described in the introductory section. After each study, we present a brief summary of the main empirical findings.

III.1 Effects of Socioeconomic Characteristics on Receipt of AFDC and Child Support

In this section, we utilize the three data bases (CPS, EOPP, and AFDC) to examine the relationship between socioeconomic characteristics of the mother and receipt of AFDC and child support. This section has two major objectives. First, we wish to determine whether a consistent pattern emerges across data sets in the effects of certain variables. To do this, we define a restricted set of variables that are available in all three data sets and perform regression analyses on each data set. Second, we wish to explore in depth specific aspects of child support receipt. To do this, we make use of special features of each data set to perform further analyses.

We begin this section by presenting the results from what we term the basic regression model, which utilizes the same set of variables from each data set. We examine the effects of this restricted set of socioeconomic characteristics on a variety of AFDC and child support outcome measures. We then discuss the special nature of the EOPP data set which allows us to construct a measure of the regularity of receipt of child support payments based on time series data and present results from a regression model in which this time series constructed measure is the dependent variable. We compare these results to those obtained from the CPS data set where a measure of child support regularity is available based on the answer to a single question in the survey. Finally, we present results from analyses that utilize additional information from the CPS and AFDC data sets.

III.1.1 Basic Regression Model Results

Each of the three data sets contain demographic information about the mother (age, education, race, family structure, and geographic location), employment information (whether employed and amount of earnings), and marital information (marital status, years married*, years since the marital dissolution, and number of times married). This information comprises the restricted set of explanatory variables specified in the basic regression model. Because the focus of this report is on the relationship between AFDC recepiency and child support recepiency, we begin by examining the impact of these explanatory variables on whether the mother receives AFDC. We then examine the characteristics that affect several dimensions of child support recepiency. We examine the effects of these explanatory variables on the following outcome measures:

- Whether the mother receives AFDC.
- Whether the mother has a child support award.
- The amount of the child support award.
- Whether the mother receives child support.
- The amount of child support received per year.
- Whether the mother receives child support on an irregular basis.

Sample means of all the variables used in the basic regression model are presented in Table III.1.1 for the various groups analyzed.**

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*This variable is only available in the CPS data set but is included in the basic regression model.

**The CPS analysis refers to the year 1978, the AFDC analysis to the survey month (March) in 1979, and the EOPP analysis to the year 1979.

Table III.1.1

SAMPLE MEANS FOR VARIABLES IN THE BASIC REGRESSION MODEL

	CPS			AFDC Survey[a]		EOPP Survey	
	All Mothers (N=2,299)	Those with an Award (N=1,056)	Those Receiving Child Support (N=794)	All Mothers (N=15,116)	Those with an Award (N=4,594)	All Mothers (N=3,749)	Those Receiving Child Support (N=875)
Outcome Measures							
1 = Receives AFDC	.35	.26	.21	--	--	.49	.16
1 = Child support award	.46	--	--	.30	--	NA	--
Amount of award (per year)	$934	$2,033	$2,194	$444	$1,403	NA	--
1 = Receives child support	.35(.27)[d]	.75(.58)[d]	--	.12	.37	.23	--
Amount received (per year)	$652	$1,419	$1,892	$148	$ 447	$ 562	$2,443
1 = Receives child support irregularly	.08	.18	.24	NA	NA	.06	.20
Demographic Characteristics							
1 = Head of family	.72	.84	.85	.81	.82	NA	NA
1 = Northeast	.21	.20	.21	.21	.23	.28	.21
1 = Northcentral	.23	.27	.26	.26	.31	.14	.17
1 = West	.22	.26	.26	.16	.18	.22	.23
1 = South	.34	.27	.27	.37	.27	.36	.39
1 = Black	.32	.16	.14	.45	.28	.39	.21
Age of mother	32.0	34.3	34.7	29.2	31.0	33.5	35.1
Education of mother	11.5	12.0	12.2	10.5	10.8	11.0	11.9
Number of children under 6 years of age	.39	.35	.32	.81	.71	.58	.38
Number of children between 6 and 12 years of age	.52	.59	.58	.79	1.01	.87	.88
Number of children between 12 and 18 years of age	.54	.68	.68	.43	.58	.69	.71

Table III.1.1 (concluded)

	CPS			AFDC Survey[a]		EOPP Survey	
	All Mothers (N=2,299)	Those with an Award (N=1,056)	Those Receiving Child Support (N=794)	All Mothers (N=15,116)	Those with an Award (N=4,594)	All Mothers (N=3,749)	Those Receiving Child Support (N=975)
Employment Characteristics							
1 = Employed	.70	.81	.82	.17	.23	.54	.73
Earnings per year	$4,470	$5,894	$6,132	$ 714	$1,019	$4,089	$6,099
Marital Information							
1 = Divorced[a]	.48	.77	.76	.24	.54	.48	.74
1 = Legally separated	.08	.10	.09	.03	.04	.28[g]	.20[g]
1 = Informally separated	.15	.09	.08	.20	.15	--	--
1 = Never married[b]	.29	.04	.07	.51	.26	.24	.06
Years married[c]	9.0	9.5	10.5	NA	NA	NA	NA
Years since marital dissolution[c]	4.4	4.1	3.9	3.9[f]	4.4[f]	8.7	6.3
1 = Married more than once[c]	.17	.16	.14	1.3	1.4	.22	.23

[a]In the AFDC survey, marital status variables are defined as the fraction of children in the family within a particular category. A small number of children fall in a category called "absent for other reason" and are not reported in table.

[b]In the AFDC survey, this category refers to the fraction of children in the family born out of wedlock.

[c]Among those previously married.

[d]Income-based definition in parentheses.

[e]Monthly date converted to annual totals.

[f]Average number of absent fathers per household.

[g]Survey does not distinguish these two categories of marital status.

NA: Information not available in the survey.

III.1.1.1 AFDC Recipiency

The first outcome measure we examine is AFDC recipiency. Because all members of the AFDC survey sample receive welfare benefits, we are only able to perform this analysis on the CPS and EOPP data sets. The regression results are reported in Table III.1.2.

The first thing to note about these results is their remarkable consistency across the two data sets. The signs of the coefficients agree in every case and often the measured effects of the variable are similar in magnitude. This gives us confidence that the measured effects are real and not artifacts of the way the particular survey was designed, although it is important to note that similar biases in underreporting AFDC status may be generating similarly biased estimates.

AFDC recipiency is lowest in the South. The results indicate that, holding personal characteristics constant, single mothers living in the South have a much lower probability of receiving welfare benefits than single mothers living elsewhere in the U.S. In the CPS sample, the probability of receiving welfare is between 12 and 14 percentage points lower in the South. In the EOPP sample, the probability of receiving welfare is between 10 and 25 percentage points lower in the South. The differences in the range of the effects across the two surveys is undoubtedly due to differences in sample composition. The CPS survey is a random sample of the U.S. population while the EOPP survey is a stratified random sample with a disproportionate number of low-income families. The large effect of the Northeast in the EOPP survey results may be due to the oversampling of dense urban areas where welfare recipiency is more prevalent.

The remarkable similarity in welfare recipiency rates for all regions other than the South supports the well-known fact that the South differs significantly in the structure of its welfare programs. This, of course, is well known. Benefit levels and standards of need are much lower in the South than elsewhere in the U.S. and therefore the probability of being eligible for benefits is also lower.

Table III.1.2

EFFECTS OF SOCIOECONOMIC CHARACTERISTICS ON AFDC STATUS

	CPS (N=2,299)	EOPP Survey (N=3,749)
Demographic Characteristics		
1 = Head of family	.172***	--
	(.027)	--
1 = Northeast	.123***	.246***
	(.023)	(.018)
1 = Northcentral	.128***	.100***
	(.022)	(.021)
1 = West	.138***	.131***
	(.023)	(.019)
1 = South	--	--
	--	--
1 = Black	.090***	.068***
	(.020)	(.015)
Age	-.004***	-.006***
	(.001)	(.001)
Education	-.014***	-.008***
	(.004)	(.003)
Number of children under 6	.089***	.081***
	(.016)	(.011)
Number of children between 6 and 12	.040***	.046***
	(.012)	(.007)
Number of children between 12 and 18	.013	.055***
	(.011)	(.008)
Employment Characteristics in Survey Year		
1 = Employed	-.231***	-.155***
	(.022)	(.017)
Earnings ($1,000s)	-.026***	-.026***
	(.002)	(.001)

Table III.1.2 (concluded)

	CPS (N=2,299)	EOPP Survey (N=3,749)
Marital Information		
1 = Divorced[a]	-.125*** (.029)	-.119*** (.020)
1 = Legally separated	-.103*** (.038)	-- --
1 = Informally separated	-.096*** (.031)	-.115*** (.020)
1 = Never married	-- --	-- --
Years married	-.0002 (.002)	-- --
Years since marital dissolution	0.016*** (.003)	.001* (.004)
1 = Married more than once	-.013 (.028)	.027 (.019)
Constant term	.427*** (.056)	.628*** (.053)
Summary Statistics		
R_2	.375	.341
Standard error of estimate	.374	.407
Mean of dependent variable	.349	.487

Note: Standard errors are in parentheses.

[a]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at 10% level.
**Significant at 5% level.
***Significant at 1% level.

Also well known is the finding that blacks have a higher probability of receiving welfare than other ethnic groups.* The black effect is 7 percentage points in the EOPP sample and 9 percentage points in the CPS sample. This result is undoubtedly due to the omission of many characteristics of black families that make them more prone toward welfare dependency, including lack of child support. However, it is worth noting that in more elaborate model specifications that include child support variables, the black effect remains, suggesting that it is extremely difficult to measure the characteristics that differentially affect blacks in seeking welfare benefits.

Older mothers have a lower probability of being on welfare than younger mothers. The age effect ranges from 4 percentage points for each 10 years in the CPS sample to 6 percentage points for each 10 years in the EOPP sample. It is not clear why older mothers have a lower probability of being on welfare when other characteristics such as employment status, marital status, and family structure are held constant. Even when various child support variables are added to the equation (see the analyses in Section III.1.1.8 below), the age effect remains. We speculate that the age variable is picking up certain unmeasured human capital characteristics of the mother (such as her labor market experience) which lead to higher earnings capacities and lower welfare dependency.

Education also decreases the probability of receiving welfare. Mothers with a high school diploma have between a 3 and 6 percentage point lower probability of receiving welfare than mothers with only a grade school education. The education effect, like the age effect, can be interpreted as capturing the influence of the mother's human capital on welfare dependency.

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*Originally, we specified an additional variable to distinguish Hispanics and other ethnic groups from whites, but this variable was never statistically significant. We thus combined all groups other than blacks into a single category. Hispanics comprise less than 10% of this combined category.

Family structure has a predictable effect on the probability of receiving welfare. The probability of receiving welfare increases with the number of children and decreases with the ages of the children. Except for the effect of the number of children between the ages of 12 and 18, the CPS and EOPP results are remarkably similar.

The mother's employment status exerts the strongest effect on the probability of receiving welfare. In the CPS sample, employed mothers have a 23 percentage point lower probability of receiving welfare than non-employed mothers, while in the EOPP sample employed mothers have a 16 percentage points probability. For employed mothers, each additional $1,000 in annual earnings further reduces the probability of being on welfare by 3 percentage points.

Marital status is also a strong predictor of welfare status. In both the CPS and EOPP samples, divorced mothers are the least likely to be on welfare and unwed mothers are the most likely. In both samples, unwed mothers have more than a 10 percentage point higher probability of being on welfare than mothers previously married. This effect is undoubtedly due in part to the fact that unwed mothers are much less likely to receive child support, but as our analyses in the next section will show, the probability of receiving welfare for unwed mothers remains higher even when receipt of child support is held constant.

The results indicate that after a marital dissolution, the likelihood of the mother receiving welfare increases over time. As we shall see, this effect partially reflects the fact that receipt of child support declines over time.

III.1.1.2 Award of Child Support

The next variable we examine is award of child support. This variable is only available in the CPS and AFDC surveys. In the CPS survey, we combine information on whether the mother was awarded child support with the

status of that award during 1978. In particular, we employ a definition that signifies whether the mother was both awarded child support and due child support in 1978. This eliminates mothers for whom an award is essentially meaningless.* Of the 1,198 mothers with a child support award, 1,056, or 88% were due child support in 1978. For comparative purposes, we assume that all mothers in the AFDC survey having an award were due child support in the survey month, although this clearly may be a slight overstatement.**

The results of estimating the award equation are given in Table III.1.3***. Because the composition of the two samples are so different (the CPS sample is a random sample of all single mothers while the AFDC sample is not), the results are not strictly comparable. However, some similarities exist.

First, both surveys reveal that mothers residing in the Northcentral region of the U.S. have a higher probability of having a child support award than mothers residing elsewhere in the U.S. (the effect is twice as strong in the CPS sample). This result is primarily due to differences in the judicial systems and child support enforcement programs across regions. For example, Michigan (which is in the Northcentral region) is recognized to

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*Reasons why a mother with an award would not be due child support in 1978 include death of the former spouse or children that are no longer eligible for payments because of a provision in the divorce decree.

**Two possible measures of whether the AFDC mother has a child support award are available in the AFDC survey. One measure is based on information given in the early summary section of the survey. The other is based on information given later in the survey for each specific child in the AFDC unit. There are very few discrepancies between the two measures so they are virtually identical. We use the measure in the summary section only because the information available on award amount is also given in this section.

***The AFDC equation is estimated over the sample of cases with valid award amount information. 749 cases are lost due to missing information.

Table III.1.3

EFFECTS OF SOCIOECONOMIC CHARACTERISTICS ON AWARD OF CHILD SUPPORT

	CPS (N=2,299)		AFDC Survey (N=14,367)	
Demographic Characteristics	Whether Due in 1978	Amount Due in 1978	Whether Award	Amount of Award[e]
1 = Head of family	.050* (.028)	-78.08 (105.24)	-.009 (.009)	-3.90 (17.22)
1 = Northeast	.009 (.024)	62.42 (88.96)	.030*** (.010)	102.60** (18.36)
1 = Northcentral	.047** (.023)	25.58 (85.09)	.022** (.009)	104.88*** (17.40)
1 = West	.027 (.024)	-52.19 (89.67)	-.015 (.011)	54.12*** (20.40)
1 = South	-- --	-- --	-- --	-- --
1 = Black	-.092*** (.021)	-354.59*** (78.40)	-.027*** (.008)	-38.88*** (15.00)
Age[b]	-.0002 (.001)	7.94 (4.65)	.00004 (.001)	.36 (.96)
Education[b]	.010*** (.004)	77.50*** (13.93)	.009*** (.002)	25.80*** (4.20)
Number of children under 6	-.007 (.016)	3.66 (60.30)	.025*** (.005)	114.12*** (10.33)
Number of children between 6 and 12	.012 (.013)	188.43*** (46.23)	.028*** (.004)	126.72*** (7.72)
Number of children between 12 and 18	.007 (.012)	146.61*** (44.04)	.021*** (.005)	129.00*** (9.58)

Table III.1.3 (continued)

	CPS (N=2,299)		AFDC Survey (N=14,367)	
	Whether Due in 1978	Amount Due in 1978	Whether Award	Amount of Award[e]
Employment Characteristics (in Survey Year)				
1 = Employed	.038* (.023)	24.88 (83.66)	.041*** (.013)	48.24* (24.72)
Earnings ($1,000s)[a]	.003 (.002)	22.43*** (7.75)	.002 (.002)	2.04 (4.68)
Marital Information				
1 = Divorced[c]	.587*** (.031)	976.29*** (113.99)	.592*** (.013)	1,011.24*** (24.00)
1 = Legally separated	.473*** (.040)	731.57*** (147.32)	.410*** (.023)	891.60*** (43.92)
1 = Informally separated[d]	.190*** (.033)	257.70** (120.18)	.101*** (.011)	213.84*** (22.32)
1 = Never married	-- --	-- --	-- --	-- --
Years married	.001 (.002)	14.28** (6.05)	-- --	-- --
Years since marital dissolution[b]	-.007** (.003)	-26.48*** (10.57)	-.003** (.001)	-19.2*** (4.00)
1 = Married more than once	-.048* (.029)	-79.97 (107.58)	.032*** (.006)	-61.56*** (12.00)
Constant term	-.009 (.059)	-882.16*** (217.99)	-.035 (.030)	-291.48*** (57.48)

Table III.1.3 (concluded)

	CPS (N=2,299)		AFDC Survey (N=14,367)	
	Whether Due in 1978	Amount Due in 1978	Whether Award	Amount of Award[e]
Summary Statistics				
R^2	.368	.210	.276	.257
Standard error of estimate	.398	1,471	.392	74.8
Mean of dependent variable	.459	934.03	.303	443.76

Note: Standard errors are in parentheses.

[a]For the AFDC survey results, earnings reported in the survey month are converted to annual terms.

[b]For the AFDC survey results, dummy variables for missing cases are included in the regression, but not reported.

[c]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

[d]For the AFDC survey results, a separate dummy variable for absent for other reason is included in the regression, but not reported.

[e]Data reported for the survey month are converted to annual terms.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

have a more effective judicial process in awarding child support.* In later sections of this study, we examine more closely the role of the judicial system and the individual child support enforcement programs in affecting child support recipiency.

Second, both surveys reveal that blacks are less likely to have a child support award than other ethnic groups (primarily whites). The race effect is more than three times greater in the CPS sample. It is not clear why blacks have a lower award rate than whites. It may be reflecting a lower incentive on the part of the mother to seek an award or it may be reflecting characteristics of the absent father (such as low earnings capacity) that prevent our award from being made. Lack of a child support award for blacks is partly responsible for their higher welfare recipiency rates. However, subsequent analysis will show that other factors appear to be more important.

More educated mothers have a higher probability of having a child support award. This effect is virtually identical in both surveys and probably arises for two reasons. First, higher education of the mother may be reflecting greater ability and incentive on her part to seek a child support award. An educated single mother is probably more likely to understand the legal requirements for obtaining child support, more likely to seek legal advice and aid through an attorney, and more likely to successfully establish a support obligation through legal procedures. Second, several human capital studies have found that education of the mother and father are positively correlated. Hence, higher education of the mother may be reflecting a greater ability of the father to pay child support because higher education usually implies higher earnings.

The effects of family structure on having an award differ in the two survey samples. We would expect both the ages and number of children to

*For a discussion of the Michigan system, see David L. Chambers, Making Fathers Pay: The Enforcement of Child Support, Chicago: University of Chicago Press, 1979.

have a positive influence on the probability of having an award because child rearing costs increase with both age and size of family. Hence, the mother's incentive to seek an award should increase with these family structure characteristics. Our results reveal that only the number of children in AFDC families is positively correlated with the existence of an award and that this effect appears to be independent of the age of the children. Each additional child is estimated to increase the probability of having an award by between 2 and 3 percentage points, depending on the ages of the children. This represents between a 7% and 10% effect.

Both surveys reveal that working mothers have a greater chance of having a child support award than nonworking mothers. However, the level of earnings does not affect the likelihood of having an award. The employment effect is virtually identical in the two surveys and probably arises for the same reasons as the education effect, namely that working mothers are more likely to seek and obtain an award and may be more likely to have an ex-spouse who is employed and capable of providing child support.*

Marital status exerts a strong impact on the probability of having an award. The effects are remarkably similar in the two samples. Divorced mothers are most likely to have an award, followed by legally separated mothers, informally separated mothers, and unwed mothers. Holding other characteristics constant, the CPS results imply that the probability of having an award is .70 for divorced mothers, .59 for legally separated mothers, .31 for informally separated mothers, and .12 for unwed mothers. The corresponding probabilities for the AFDC sample are .72, .54, .23, and .13, respectively. Clearly, awards are rare in cases where the mother was never married. They are somewhat more likely (yet still infrequent) when

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*In the CPS sample, because the award was probably made prior to 1978, the mother may not have been working at the time of the award. However, our results provide no firm evidence for the possibility of reverse causation; namely that mothers without an award are more likely to become employed at a later date.. However, such a result is not precluded by the results presented.

the mother was married but the dissolution is not legal. They are fairly frequent when the dissolution has legal status but is not final. Finally, they are quite frequent when the dissolution is both legal and final. Taken together, these results indicate that marital status is the most important variable determining whether a single mother has a child support award.

Other information about the marital situation also plays a significant role in determining the probability of having an award. For example, the results from both surveys indicate that the likelihood of having an award decreases with the length of time since the marital dissolution. This effect is much stronger in the CPS sample. It is not entirely clear why such an effect is observed. On the one hand, it would appear that the greater the length of time since the dissolution, the greater the likelihood the mother will seek an award because her needs will be more clearly defined and she will be better prepared to make the necessary legal arrangements for obtaining support. On the other hand, child support obligations are usually established at the time of the dissolution and the mother may be less likely to seek an award as time passes because she perceives the father as less willing and able to pay. The father may be less willing and able to pay because he may have acquired new financial obligations (for example through remarriage) or he may simply be more difficult to locate. Furthermore, the mother may view the probability of actually winning an award as declining over time. In any event, the costs of seeking support may exceed the benefits from the mother's perspective. Our results suggest that this latter explanation is the dominant factor in determining whether a child support award is made over time.

The one inconsistency in the results from the CPS and AFDC surveys occurs with regard to the effect of the number of times married on the probability of having an award.* The CPS sample indicates that mothers married more than one time have a lower probability of having an award while

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*Recall that in the AFDC survey sample, this variable measures the number of absent fathers per family.

the AFDC sample indicates they have a higher probability. Both results are sensible given the way the variable was constructed in each data set. In the CPS sample, having a child support award refers only to the most recent marriage.* Even though there are children from the most recent marriage, the probability of having an award may be lower if the mother is already receiving child support from an earlier marriage. It may be lower because the mother may be less likely to seek an award or because she may be less likely to obtain an award.** In the AFDC sample, having a child support award refers to any previous marriage. Hence, mothers married twice are more likely to have a child support award on purely probabilistic grounds because they may have children from both marriages.***

In addition to determining the effects of the various characteristics on whether an award has been made, we also examined their effects on the amount of the award.+ These results display the same general pattern as the earlier results with a few important exceptions. First, in the CPS sample, the probability of having an award is significantly higher in the Northcentral region than in the South but the amount of the award is not significantly higher. As we shall see, this result arises because the award amount for those having an award is lower in the Northcentral region when compared to the South. Furthermore, in the AFDC sample, the probability of

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*The questionnaire was structured so as to only elicit information about the most recent marriage.

**We are unable to determine whether there are children from the earlier marriage(s) in the CPS sample.

***It is possible to determine whether there are children from both marriages as well as whether there is an award from both marriages in the AFDC sample, however we did not make use of this information in our empirical analysis.

+These results are based on regressions run over the entire samples of single mothers in each survey sample . Hence, they combine the effects of the variables on the probability of having an award with their effects on the amount of the award conditional on having an award. Later in this section, we report results from regressions run over the restricted sample of mothers having an award (see Table III.1.5).

having an award is approximately the same in the South and the West but the amount of the award is greater in the West. This may be reflecting the higher cost of living in the West as well as higher award amounts. Second, the effects of family structure in the CPS sample on the award amount are significant while the effects on whether there is an award are not. Again, this result arises because of a strong effect of these variables on the conditional award amount. Third, employed mothers in the CPS sample have a significantly higher probability of having an award, but do not have significantly higher award amounts when compared to nonemployed mothers. This latter finding may be reflecting two countervailing effects; namely that employed mothers are more likely to have been married to employed absent fathers and therefore have higher award amounts and that employed mothers are less in need of child support than nonemployed mothers and therefore are likely to have lower award amounts.

Fourth, for mothers that are employed, the award amount increases with the mothers earnings in the CPS sample, but the probability of having an award does not. This result may be reflecting the absent father's ability to pay.* Fifth, in the CPS sample the number of years married does not significantly influence the probability of having an award but does significantly influence the amount of the award. This result may reflect a greater propensity on the part of judges to award higher amounts of child support to women who were married longer.

III.1.1.3 Receipt of Child Support

We next examine the effects of socioeconomic characteristics on whether child support is actually received. All three data sets enable us to estimate equations determining whether child support is received as well as the amount received.

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*Since child support awards are generally based on the difference between the earnings of the mother and father, this result implies that the father's earnings increase at a faster rate than the mother's earnings.

We first consider whether child support is received.* Before discussing the results, however, we give a brief description of how this variable is measured. In the CPS sample, two different measures of receipt of child support can be constructed using information given in the survey. One measure is based on information in the child support supplement of the questionnaire. We call this the supplement-based definition. The other measure is based on information in the main body of the questionnaire, where family income is reported by source. We call this the income-based definition. In the EOPP sample, child support recipiency is measured in a manner similar to the income-based definition in the CPS sample, being derived from information on family income by source. In the AFDC sample, the definition of child support recipiency is based on information provided by the caseworker.**

Because of the thoroughness of the questions in the CPS supplement, the supplement-based definition of child support recipiency is much more likely to be an accurate indicator of the true receipt of child support than any of the income-based measures. This is especially true for AFDC mothers because they are less likely to report in the income section child support payments which were paid directly to public agencies on their behalf. Results presented later in this section provide strong evidence supporting this notion. Mothers who state that child support payments are supposed to be received through the courts or through a public agency are much less likely

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*So that we may compare the results across the 3 data sets, we estimate these models over the entire sample of single mothers. Later in this section (Table III.1.5), we report the results for models estimated on the subsample of mothers having a child support award. Since award data are not available in the EOPP survey, we can only estimate the conditional recipiency models on the CPS and AFDC samples.

**In the CPS and EOPP samples, the income-based definition of child support recipiency includes both alimony and child support. Since there are very few mothers with only alimony, this is not a serious deficiency. Mothers receiving only alimony (2% of the CPS sample) are excluded from the supplement-based definition. However, including them has virtually no effect on the empirical results. Alimony information is not available in the AFDC survey.

than other mothers to report receiving child support using the income-based definition but no less likely to report receiving child support using the supplement-based definition. This implies that the income-based definition is not an accurate indicator of receipt of child support for such families but that the supplement-based definition is. Overall, 35% of the mothers in the CPS sample report receipt of child support using the supplement-based definition while only 27% report it using the income-based definition. Clearly, the income-based definition misses many cases where child support is being paid. In the EOPP sample, where an income-based definition is also used, 23% report receiving child support. This is very close to the percentage for the income-based definition in the CPS sample. Hence, the results using the income-based measure are likely to be less accurate than the results using the other measures.

With these qualifications in mind, we now turn to the empirical results. The results are presented in Table III.1.4. In comparing the coefficients, it is important to keep in mind that the composition of the samples are different, particularly in the case of the AFDC sample. Thus, for example, the finding that blacks have a much lower probability of receiving child support than other racial groups in the CPS and EOPP samples but not in the AFDC sample is not surprising, since all racial groups receiving AFDC have similar socioeconomic characteristics while blacks and whites have substantially different socioeconomic characteristics in the general population.

The results vary across samples in the effect of location on receipt of child support. This is primarily due to the differences in the composition of the samples but also to differences in the way the outcome variable is measured. For the supplement-based definition in the CPS sample, the results indicate no geographic differences in the probability of receiving child support. This is perhaps the most credible result because the CPS sample is random and because the supplement-based definition has been judged to be superior to the income-based definition. For the income-based definition, both the CPS and EOPP samples indicate lower receipt of child support in the West and Northeast (although the Northeast effect is not

Table III.1.4

EFFECTS OF SOCIOECONOMIC CHARACTERISTICS ON RECEIPT OF CHILD SUPPORT

	CPS (N=2,299)		EOPP Survey (N=3,749)	AFDC Survey (N=15,116)
	Supplement Definition	Income Definition		
Demographic Characteristics				
1 = Head of family	.093*** (.029)	.134*** (.027)	-- --	-.003 (.007)
1 = Northeast	.008 (.025)	-.028 (.023)	-.090*** (.017)	.005 (.008)
1 = Northcentral	.011 (.024)	-.027 (.022)	-.024 (.020)	.016** (.007)
1 = West	.010 (.025)	-.053** (.023)	-.090*** (.018)	-.024*** (.008)
1 = South	-- ---	-- --	-- --	-- --
1 = Black	-.099*** (.022)	-.110*** (.020)	-.157*** (.014)	-.010 (.006)
Age[a]	.002* (.001)	.0002 (.001)	.002** (.001)	.002*** (.0004)
Education[a]	.016*** (.004)	.016*** (.004)	.022*** (.003)	.010*** (.002)
Number of children under 6	-.035** (.017)	-.034** (.016)	-.018* (.010)	.0003 (.004)
Number of children between 6 and 12	-.0003 (.013)	.0005 (.012)	.002 (.007)	.004 (.003)
Number of children between 12 and 18	-.008 (.012)	-.008 (.022)	-.009 (.008)	.003 (.004)

Table III.1.4 (continued)

	CPS (N=2,299)		EOPP Survey (N=3,749)	AFDC Survey (N=15,116)
	Supplement Definition	Income Definition		
Employment Characteristics (in Survey Year)				
1 = Employed	.022 (.023)	.049** (.022)	.074*** (.016)	.029*** (.002)
Earnings ($1,000s)[b]	.002 (.002)	.009*** (.002)	.003** (.001)	-.002 (.002)
Marital Information				
1 = Divorced[c]	.421*** (.032)	.277*** (.030)	.197*** (.019)	.215*** (.010)
1 = Legally separated	.325*** (.041)	.148*** (.038)	.082*** (.019)	.188*** (.018)
1 = Informally separated	.140*** (.033)	.073*** (.031)	-- --	.047*** (.009)
1 = Never married[d]	-- --	-- --	-- --	-- --
Years married	.004** (.002)	.005*** (.002)	-- --	-- --
Years since marital dissolution	-.018*** (.003)	-.016*** (.003)	-.002*** (.0004)	-.003** (.001)
1 = Married more than once	-.101*** (.030)	-.026 (.028)	-.036** (.018)	.022*** (.005)
Constant term	-.146** (.060)	-.103* (.057)	-.040 (.050)	-.105*** (.024)

Table III.1.4 (concluded)

	CPS (N=2,299)		EOPP Survey (N=3,749)	AFDC Survey (N=15,116)
	Supplement Definition	Income Definition		
Summary Statistics				
R^2	.273	.257	.158	.076
Standard error of estimate	.341	.383	.385	.316
Mean of dependent variable	.3245	.268	.227	.123

Note: Standard errors are in parentheses.

[a]For the AFDC survey results, dummy variables for cases with missing data are included in the regression, but not reported.

[b]For the AFDC survey results, earnings reported in the survey month are converted to annual terms.

[c]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

[d]For the AFDC survey results, a separate dummy variable for absent for other reason is included in the regression, but not reported.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

statistically significant in the CPS sample). The AFDC sample results also indicate lower receipt of child support in the west but the effect is smaller than in the other two samples. One possible explanation for these findings is that greater amounts of child support payments are being made through public agencies in the West and Northeast as compared to the South.

As mentioned above, except for the AFDC sample, the results indicate that blacks have a significantly lower probability of receiving child support than the other racial groups (mainly whites). Earlier we found that blacks have a lower probability of having an award. As we shall see later, blacks also have a lower probability of receiving child support, given they have an award. Hence, blacks receive child support at a lower rate than whites and other racial groups because they are less likely to have an award and because they are less likely to receive child support payments when they do have an award.

The results are remarkably consistent across data sets in indicating that receipt of child support increases with the age of the mother. Since age does not affect the likelihood of having an award, this finding arises because receipt increases quite significantly with age among those mothers having an award.

The results are also remarkably consistent with respect to the effects of education on receipt of child support. Unlike the age effect, however, higher education increases the likelihood of both having a child support award and receiving child support conditional on having an award.

Both the CPS and EOPP samples indicate that receipt of child support is less likely in families with young children (under the age of 6). Such an effect is not present in the AFDC sample. Since the costs of rearing younger children are generally less than the costs of rearing older children, this effect may be measuring both a lower willingness on the part of the father to pay support and a lower propensity on the part of the mother to seek support. Our earlier results for the CPS sample indicate that families with younger children are just as likely to have an award as

families with older children. Hence, this result is probably reflecting a lower incentive on the part of the father to meet an already established support obligation. However the mother may be also less likely to pursue the father for payment under such circumstances.*

All three surveys indicate that receipt of child support is greater in families where the mother is employed, although the effect using the supplement-based definition is not statistically significant. Furthermore, there is some evidence that receipt increases with the mother's earnings. As indicated earlier, both the observed education and employment effects are probably due to the same factors, namely a greater ability on the part of the mother to seek support and a greater ability of the father to pay support (assuming earnings and education of the mother and father are positively correlated).

Receipt of child support varies greatly with the marital status of the mother. Divorced mothers are most likely to receive child support and mothers who have never been married are least likely to receive child support. These marital status effects are due almost entirely to differences in the probability of having an award. In fact, as we shall see, once having obtained an award, mothers who have never been married are more likely to receive child support than other single mothers. However, only 6% of never married mothers in the CPS sample and 14% in the AFDC sample actually have an award.

The probability of receiving child support increases with the number of years the mother was married. This effect is probably reflecting a greater sense of obligation on the part of the father to pay support because of closer emotional ties with his children. However, a longer marriage may also give the mother a greater incentive to seek an award. Earlier, we were unable to detect a significant impact of years married on the probability of having an award. Such an effect is also absent for the probability of

*Another possible explanation is that younger children may have correspondingly younger fathers who have a lower ability to pay child support.

receiving support, conditional on having an award, as subsequent analysis will show. Hence, the latter explanation (greater incentive on the part of the mother to seek an award) is probably not playing as important a role as the former explanation (closer emotional ties between the father and his children).

Receipt of child support decreases over time as indicated by the effect of years since the marital dissolution. This finding reflects both a decreased probability of having an award and a decreased probability of meeting an established support obligation. A lessening of the emotional ties between the father and his children over time may be responsible for generating this result. An implication of of such a finding is that attempts to maintain the bond between the father and his children could increase the probability that child support obligations would be met. The bond can be maintained by liberalizing custody and visitation arrangements or possibly by arranging counseling activities aimed at solidifying family ties. While current trends indicate a liberalization of custody and visitation arrangements, the fact remains that many fathers are likely to lose their emotional ties with their children. Hence, our results suggest that efforts to maintain these ties may increase the children's well-being (both emotionally and financially). Of course, fathers would also benefit from such efforts.

Finally, the results are mixed regarding the effects of number of times married on the likelihood of receiving child support. As indicated earlier, differences in the effect of this variable may be reflecting differences in the definitions used for receipt of child support. In the CPS sample, receipt of child support refers only to the most recent marriage while in the AFDC sample it refers to any previous marriage. However, the income-based definition of child support used in both the CPS and EOPP surveys also refers to any previous marriage. Hence, the inconsistency in the results may be due to differences in sample composition as well as differences in the definition of child support recipiency.

III.1.1.4 Amount of Child Support Received

Table III.1.5 presents the results for amount of child support received. In general, these results reflect the same patterns as the previous results for the probability of receiving child support. One notable exception is that family structure affects the amount of child support received somewhat differently than it affects whether child support is received. For example, as the number of children increases, the amount of child support received generally increases while the likelihood of receiving child support remains constant. This result probably reflects our earlier finding that the award amount increases with the number of children while the probability of having an award is independent of the number of children. The additional amount received per child is greatest for children between 6 and 12 years of age which is consistent with the pattern observed for award amount. Also consistent is the finding that there is no relation between the number of children under 6 years of age and the amount received.

III.1.1.5 Results for Mothers with a Child Support Award

The previous results combine the effects of the socioeconomic characteristics on the probability of having an award with their effects on the particular outcome measure for those with an award. In this section, we present the somewhat more meaningful results for the restricted sample of single mothers who have a child support award.

As the sample means in Table III.1.1 indicate, the characteristics of this restricted sample compared to those of all single mothers are quite different. The most striking difference pertains to the marital composition of the samples.* Whereas one-half the CPS mothers are divorced and almost one-third have never been married, over three-quarters of the mothers due

*Information on whether the mother has a child support award is not available in the EOPP survey so this sample is excluded from the analysis.

Table III.1.5

EFFECTS OF SOCIOECONOMIC CHARACTERISTICS ON AMOUNT OF CHILD SUPPORT RECEIVED

	CPS (N=2,299)	EOPP Survey (N=3,749)	AFDC Survey (N=15,116)[e]
Demographic Characteristics			
1 = Head of family	58.72 (97.06)	-- --	3.77 (11.12)
1 = Northeast	70.20 (82.05)	-92.69 (78.94)	39.72*** (11.89)
1 = Northcentral	-36.39 (78.48)	-98.41 (93.14)	50.52*** (11.18)
1 = West	-50.64 (82.50)	-155.86* (82.35)	16.44 (13.52)
1 = South	-- --	-- --	-- --
1 = Black	-369.59*** (72.31)	-611.27*** (67.91)	-17.64* (9.76)
Age[a]	11.26*** (4.29)	27.52*** (4.53)	1.74*** (.64)
Education[a]	71.93*** (12.84)	127.72*** (12.72)	16.44*** (2.72)
Number of children under 6	-32.70 (55.61)	-16.71 (47.63)	27.32*** (6.73)
Number of children between 6 and 12	119.0[illegible]*** (42.64)	69.23** (32.88)	29.40*** (5.00)
Number of children between 12 and 18	89.84** (40.62)	-45.23 (36.33)	32.16*** (6.18)

Table III.1.5 (continued)

	CPS (N=2,299)	EOPP Survey (N=3,749)	AFDC Survey (N=15,116)[e]
Employment Characteristics (in Survey Year)			
1 = Employed	-16.44 (77.16)	7.25 (74.96)	36.91** (15.96)
Earnings ($1,000s)[b]	8.32** (7.15)	5.16 (6.67)	-8.27*** (3.00)
Marital Information			
1 = Divorced[c]	547.22*** (105.13)	431.96*** (88.41)	317.04*** (15.60)
1 = Legally separated	377.15*** (135.87)	137.16 (90.99)	280.20*** (28.08)
1 = Informally separated	106.39 (110.84)	-- --	86.92*** (14.44)
1 = Never married[d]	-- --	-- --	-- --
Years married	17.80*** (5.58)	-- --	-- --
Years since marital dissolution[a]	-33.89*** (9.75)	-4.74** (1.95)	-7.93*** (1.85)
1 = Married more than once	-268.27*** (99.22)	-365.26*** (84.87)	1.08 (7.81)
Constant term	-921.51*** (201.05)	-1,647.74*** (235.97)	-220.92*** (37.32)

Table III.1.5 (concluded)

	CPS (N=2,299)	EOPP Survey (N=3,749)	AFDC Survey[e] (N=15,116)
Summary Statistics			
R^2	.164	.088	.073
Standard error of estimate	1,356.29	1,810.62	497.28
Mean of dependent variable	651.61	561.77	147.84

Note: Standard errors are in parentheses.

[a]For the AFDC survey results, dummy variables for cases with missing data are included in the regression, but not reported.

[b]For the AFDC survey results, earnings reported in the survey month are converted to annual terms.

[c]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

[d]For the AFDC survey results, a separate dummy variable for absent for other reason is included in the regression, but not reported.

[e]Data reported for the survey month are converted to annual terms.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

child support are divorced and less than 5% have never been married. This illustrates the major problem facing the Child Support Enforcement Program, namely that very few unwed mothers have any form of legal child support arrangement. Only 6% of all unwed mothers have a child support award, while 75% of all divorced mothers have an award. The figures are similar but not quite as striking for the AFDC sample. About one-quarter of AFDC mothers are divorced while over one-half are unwed mothers. Child support awards exist for about 14% of the unwed AFDC mothers and 61% of the divorced AFDC mothers. The figures for the AFDC sample suggest that the IV-D program has been somewhat successful in obtaining child support for unwed mothers. Additionally, they suggest that one of the reasons why divorced mothers may apply for welfare benefits is because they do not have a child support award.*

There are other significant differences in the composition of the samples. Mothers with a child support award tend to be older, more educated, and more likely to be employed than mothers without an award. They are also less likely to live in the South.

We examine three outcome variables for the sample of mothers due child support. These are the amount due, the probability of receiving support, and the amount of support received.** The results for both the CPS and AFDC samples are presented in Table III.1.6.***

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*Later in this study, we present a more detailed analysis of the effects of the IV-D program on various child support outcomes.

**These can be used to draw inferences about another interesting outcome measure--the fraction of support due that is received.

***For the AFDC sample, only cases with valid award amount information are analyzed. Hence, although 4,594 cases have an award, only 4,067 have information on the amount of the award.

Table III.1.6

CHILD SUPPORT DUE AND RECEIVED
(Sample of those due child support)

	CPS (N=1,056)			AFDC Survey (N=4,067)		
	Amount Due	Whether Received (Supplement Definition)	Amount Received	Amount Awarded	Whether Received	Amount Received
Demographic Characteristics						
1 = Head of family	-304.42 (204.69)	.130*** (.046)	59.92 (202.97)	30.72 (40.08)	.009 (.021)	35.93 (35.88)
1 = Northeast	143.41 (170.39)	-.001 (.038)	171.85 (168.76)	324.59*** (43.40)	.067*** (.023)	194.74*** (38.81)
1 = Northcentral	-164.62 (157.56)	-.042 (.035)	-197.50 (156.24)	252.31*** (41.28)	.066*** (.022)	159.56*** (36.90)
1 = West	233.44 (161.76)	-.022 (.036)	-173.20 (160.41)	309.44*** (42.88)	.027 (.025)	172.44*** (42.78)
1 = South	-- --	-- --	-- --	-- --	-- --	-- --
1 = Black	-402.86** (174.05)	-.109*** (.039)	-686.06*** (172.59)	1.13 (39.6)	.007 (.021)	7.27 (35.45)
Age[a]	23.34*** (9.03)	.007*** (.002)	32.21*** (8.95)	2.26 (2.44)	.006*** (.001)	6.67*** (2.17)
Education[a]	134.77*** (27.41)	.019*** (.006)	129.57*** (27.18)	43.08*** (10.31)	.017*** (.005)	37.79*** (9.22)
Number of children under 6	91.12 (113.59)	-.060** (.026)	11.28 (112.63)	255.17*** (23.74)	-.026** (.013)	39.96* (21.24)
Number of children between 6 and 12	335.73*** (85.14)	-.019 (.019)	218.94*** (84.42)	244.48*** (15.96)	-.023*** (.008)	33.38** (14.29)
Number of children between 12 and 18	277.48*** (77.94)	-.028 (.018)	157.90** (77.29)	263.46*** (19.56)	-.025** (.010)	47.45 (17.47)

Table III.1.6 (continued)

	CPS (N=1,056)			AFDC Survey (N=4,067)		
	Amount Due	Whether Received (Supplement Definition)	Amount Received	Amount Awarded	Whether Received	Amount Received
Employment Characteristics (In Survey Year)						
1 = Employed	13.71 (173.76)	-.014 (.039)	-81.97 (172.30)	-62.28 (50.28)	.058** (.027)	66.29 (44.98)
Earnings ($1,000s)[b]	20.28 (12.56)	.001 (.002)	18.80 (12.45)	-72.42 (108.94)	.116** (.058)	-292.79*** (97.40)
Marital Information						
1 = Divorced[c]	522.76* (315.24)	-.116 (.071)	-51.82 (312.60)	660.12*** (54.00)	-.038 (.029)	173.16*** (48.30)
1 = Legally separated	491.49 (350.36)	-.119 (.079)	-50.62 (347.42)	879.55*** (83.28)	.019 (.044)	245.98*** (74.47)
1 = Informally separated	517.14 (347.83)	-.124 (.078)	-.44 (344.91)	491.48*** (59.04)	-.036 (.031)	140.35*** (52.79)
1 = Never married[d]	-- --	-- --	-- --	-- --	-- --	-- --
Years married	9.00 (10.34)	.002 (.002)	13.86 (10.26)	-- --	-- --	-- --
Years since marital dissolution[e]	-31.82* (18.73)	-.027*** (.004)	-55.36*** (18.58)	-29.95*** (5.57)	-.003 (.003)	-13.30*** (4.98)
1 = Married more than once	79.52 (175.66)	-.110*** (.040)	-316.04* (174.18)	-224.84*** (28.15)	.028* (.015)	4.33 (25.17)
Constant term	-992.86** (502.82)	.482*** (.113)	-1,301.53 (498.30)	25.54 (345.66)	-.001 (.077)	-482.84*** (130.24)

Table III.1.6 (concluded)

	CPS (N=1,056)			AFDC Survey (N=4,067)		
	Amount Due	Whether Received (Supplement Definition)	Amount Received	Amount Awarded	Whether Received	Amount Received
Summary Statistics						
R^2	.105	.106	.116	.189	.020	.034
Standard error of estimate	1,830	.412	1,815	905.23	.479	809
Mean of dependent variable	2,033	.752	1,419	1,403	.369	447

Note: Standard errors are in parentheses.

[a]For the AFDC survey results, dummy variables for cases with missing data are included in the regression, but not reported.

[b]For the AFDC survey results, earnings reported in the survey month are converted to annual terms.

[c]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

[d]For the AFDC survey results, a separate dummy variable for absent for other reason is included in the regression, but not reported.

[e]Data reported for the survey month are converted to annual terms.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

There are several important differences in these results and the ones reported earlier for the full sample of single mothers. The most important difference concerns the effects of marital status. Both the CPS and AFDC samples reveal that once support is established, unwed mothers have a higher probability of receiving support than the other marital groups, although the differences are not statistically significant. This further illustrates the importance of establishing support obligations for this group.

There are also several important differences between the two samples. The CPS sample indicates no significant regional variation in any of the three outcome measures, whereas the AFDC sample indicates sizeable differences.* For example, the AFDC sample indicates significantly lower average award amounts in the South, significantly higher recipiency rates in the Northcentral and Northeast, and significantly lower support payments in the South.

The CPS sample also indicates that blacks have lower award amounts, lower recipiency rates, and lower payment amounts than do other racial groups (mainly whites), while the AFDC sample indicates no such differences. This, of course, reflects differences in sample composition. All AFDC families tend to have similar socioeconomic characteristics while blacks in the general population differ significantly from whites.

The AFDC sample also indicates that working mothers are more likely to receive child support than nonworking mothers, while the CPS sample indicates no such relationship. As we shall see, part of this result arises because IV-D agencies tend to target their enforcement efforts on working mothers.

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*Part of the reason for the lack of significant regional differences in the CPS sample is the large standard errors of the estimated coefficients relative to the standard errors for the AFDC sample. This of course arises because the AFDC sample is about 4 times larger than the CPS sample. However, differences in sample composition are primarily responsible for the estimated differences in the coefficients.

Finally, both award amounts and payment amounts amounts are positively related to the number of children over the age of 6 but are not systematically related to the number of children under the age of 6. Furthermore, the probability of receiving child support is negatively related to the number of children under the age of 6. All of these results are consistent with the notion that younger (pre-school age) children are less costly to rear than older children. Hence, efforts on the part of the mother to obtain support and the likelihood of the father paying may be expected to be lower in families where the children are young.

III.1.1.6 Regularity of Receipt of Child Support

One important issue we are able to address in this study concerns the regularity of receipt of child support. We have two independent measures of whether child support is received on a regular basis by single mothers. The first measure is based on the response to a question in the CPS survey where the mother is asked whether in 1978 she received child support regularly, occasionally, seldomly, or never. We create a dummy variable that takes on the value of one if the mother said she did not receive child support regularly, and zero otherwise.

The other measure of regularity of receipt is based on monthly data in the EOPP survey on child support amounts received over a period of about 1 3/4 years. The period begins January 1, 1979 and ends at the date of the survey. Using these monthly amounts, we construct spells indicating continuous periods of receiving child support. Information about these spells is presented in Table III.1.7.*

*It is important to note that the EOPP monthly data are based on retrospective responses. Hence there may be an upward bias in our measure of regularity if mothers choose not to reveal short intervals in which child support is not received.

Table III.1.7

DISTRIBUTION OF CHILD SUPPORT SPELLS AMONG RECIPIENTS OF CHILD SUPPORT (EOPP Survey)

	Fraction of Sample		
	1979 Sample N = 875	1979-1980 Sample N = 1,042	1979 AFDC Sample N = 157
Number of Spells			
1	.91	.92	.94
2	.06	.05	.05
3 or more	.03	.03	.01
Regularity of Payments[a]			
Received regularly	.79(.76)	.80	.75(.76)
Received irregularly	.21(.24)	.20	.25(.24)
Fraction of Period Receiving Child Support			
Between 0 and .25	.11	.10	.16
Between .25 and .50	.08	.09	.13
Between .50 and .75	.09	.09	.08
Between .75 and 1	.10	.09	.11
1	.62	.63	.52

[a]Numbers in parentheses refer to figures from the CPS.

More than 90% of the mothers report only one spell over the period. However, this spell is not necessarily continuous over the entire survey period. In fact, only about 63% of the mothers reported receiving child support continuously over the survey period.

In defining whether child support is received regularly, we use the methodology depicted in Figure III.1. This figure shows the 5 possible spell configurations in the data. We define a mother as receiving child support regularly if she has one spell that either spans the entire survey period (Configuration 5) or began after January 1, 1979 but was still in progress at the date of the survey (Configuration 4). Mothers with a single spell that ended prior to the date of the interview (Configuration 2) or with more than one spell (Configurations 1 and 3) are defined as receiving child support irregularly.

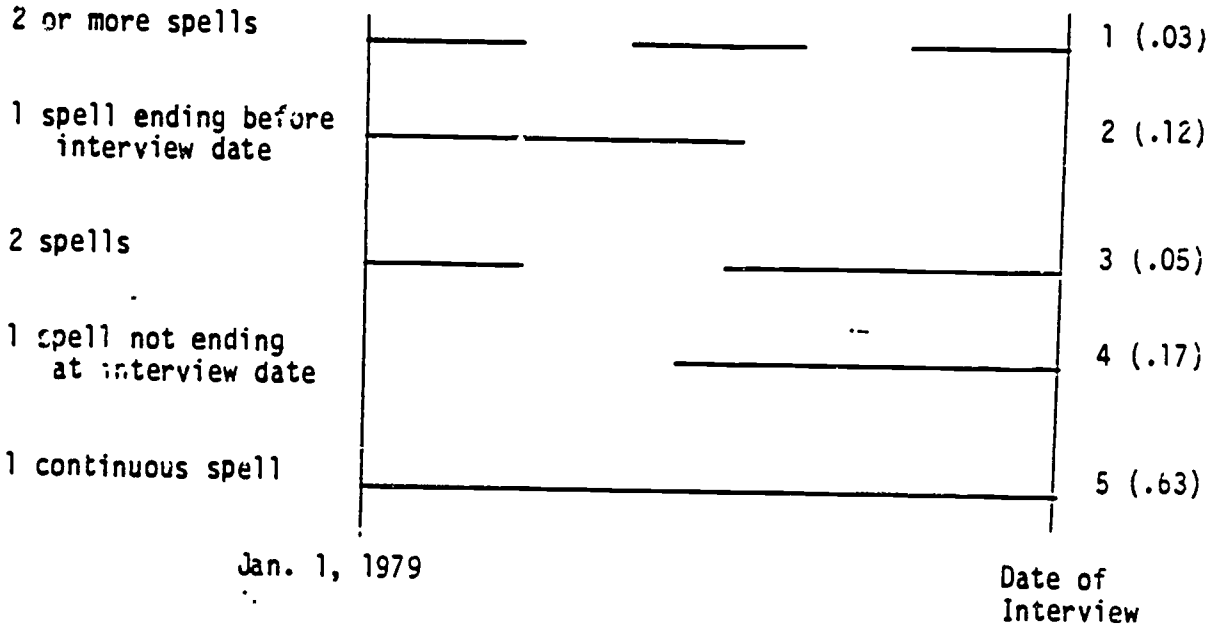
Based on this procedure, we find that roughly 20% of the mothers received child support on an irregular basis over the 1 3/4 year survey period. To be strictly comparable to the CPS question, which refers to a single year, we also constructed a measure of irregularity for 1979 only. Over this period, 21% received child support irregularly. This is remarkably close to the 24% reporting irregular receipt of child support in the CPS survey. AFDC mothers are slightly more likely to receive child support irregularly in the EOPP survey but not in the CPS survey.*

Table III.1.8 reports estimates of the basic regression model in which the dependent variable is a dummy variable indicating whether the mother

*These figures offer a rough way of comparing child support recipiency rates in the CPS (which are based on annual data) with recipiency rates in the AFDC survey (which are based on monthly data). The fraction of AFDC mothers in the CPS who receive child support on a regular basis is roughly equivalent (but slightly larger than) the fraction of mothers who received child support in the survey month in the AFDC survey sample. Hence, although the two surveys appear to be inconsistent in certain dimensions for AFDC families, part of the differences may be attributable to the time frame used in collecting the data.

Figure III.1

DEFINING WHETHER CHILD SUPPORT IS RECEIVED IRREGULARLY IN THE EOPP DATA



Sequences 1, 2, and 3 are defined as irregular.

Sequences 4 and 5 are defined as regular.

Numbers in parentheses refer to fraction of sample in each category.

received child support irregularly.* There are some notable differences in the results from the two surveys. First, the EOPP data reveal that mothers living in the West are more likely to receive child support irregularly than mothers living elsewhere in the U.S. (particularly the South). No such regional variation exists in the CPS data. Second, the CPS data indicate that blacks are much more likely to receive child support irregularly than are other racial groups while the EOPP data indicate no significant racial differences.** Third, the EOPP data indicate that older, more educated, mothers are less likely to receive child support on an irregular basis than are younger, less educated, mothers (the education effect is not significant in the 1979 sample). Such effects, which are absent in the CPS data, are consistent with our earlier findings regarding the impact of age and education on receipt of child support and probably arise for the same reasons.

Fourth, both surveys indicate that employed mothers are less likely to receive child support on a regular basis than are nonemployed mothers. Although not statistically significant in either survey, this result provides some evidence suggesting that fathers are less likely to pay child support regularly when the mother is working. It is also possible, however, that the result is due to the mother becoming employed as a result of irregular child support. We have no way of directly testing for this potential reverse causation.

Fifth, the CPS results in Table III.1.8 reveal that when child support is received by mothers who have never been married, it is much more likely

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*For the EOPP sample, two equations are reported: one covering the year 1979 and the other covering the entire sample period (1979-1980). The results for the entire sample period are reported because there is a larger sample size and the effects are estimated a bit more precisely.

**Since the EOPP data have a higher concentration of low-income families, absence of a racial effect in the EOPP results is consistent with the notion that most high-income white mothers receive child support on a regular basis.

Table III.1.8

EFFECTS OF SOCIOECONOMIC CHARACTERISTICS ON WHETHER CHILD SUPPORT IS RECEIVED IRREGULARLY
(Recipients of Child Support)

	CPS (N=794)	EOPP Survey	
		1979 Sample (N=875)	1979-1980 Sample (N=1,042)
Demographic Characteristics			
1 = Head of family	-.099* (.055)	-- --	-- --
1 = Northeast	-.065 (.044)	.002 (.039)	.020 (.035)
1 = Northcentral	.006 (.042)	.016 (.040)	.020 (.036)
1 = West	.016 (.042)	.048 (.037)	.061* (.033)
1 = South	-- --	-- --	-- --
1 = Black	.136*** (.049)	-.006 (.036)	-.004 (.033)
Age	-.002 (.002)	-.005** (.002)	-.005** (.002)
Education	.004 (.007)	-.008 (.006)	-.009* (.005)
Number of children under 6	.022 (.031)	.037 (.027)	.026 (.024)
Number of children between 6 and 12	.004 (.023)	-.025 (.017)	-.022 (.015)
Number of children between 12 and 18	-.010 (.021)	.014 (.019)	.017 (.017)

Table III.1.8 (continued)

	CPS (N=794)	EOPP Survey 1979 Sample (N=875)	EOPP Survey 1979-1980 Sample (N=1,042)
Employment Characteristics (in Survey Year)			
1 = Employed	.050 (.047)	.025 (.037)	.040 (.032)
Earnings ($1,000s)	.000 (.000)	.001 (.003)	.002 (.003)
Marital Information			
1 = Divorced[a]	.234*** (.080)	.062 (.061)	.021 (.057)
1 = Legally separated	.162* (.090)		
		.044 (.066)	-.030 (.060)
1 = Informally separated	.201** (.090)		
1 = Never married	-- --	-- --	-- --
Years married	-.005* (.003)	-- --	-- --
Years since marital dissolution	-.005 (.005)	.000 (.001)	-.0003 (.001)
1 = Married more than once	.151*** (.049)	.016 (.035)	.026 (.032)
Constant term	.273** (.129)	.398*** (.128)	.433*** (.115)

Table III.1.8 (concluded)

	CPS (N=794)	EOPP Survey	
		1979 Sample (N=875)	1979-1980 Sample (N=1,042)
Summary Statistics			
R^2	.063	.022	.024
Standard error of estimate	.417	.402	.396
Mean of dependent variable	.236	.205	.197

Note: Standard errors are in parentheses.

[a]For the CPS results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

to be received regularly than among other single mothers. This is further evidence in support of the notion that establishment of a child support obligation is critical for this group. The EOPP data indicate that regularity of receipt of child support is independent of marital status, but errors in measurement of child support recipiency may be responsible for producing this anomolous result.

Sixth, the CPS data indicate that the longer the mother was married, the more likely she is to receive child support payments regularly.* This also supports the earlier notion that length of the marriage is a proxy for the degree of the emotional tie between the father and his children. Hence, this result suggests that policy efforts to maintain this bond may increase the likelihood that child support obligations are met on a regular basis.

Finally, the CPS (but not the EOPP) data indicate that regular child support payments are less likely when the mother has been married more than once. Like the earnings effect discussed above, this may be a reflection of the father perceiving less of a need for child support because alternative sources of income (such as alimony or child support from the previous marriage) are available to the mother.

III.1.1.7 Summary of Basic Regression Model Results

To facilitate summarizing the large number of results presented in this section, we have prepared a set of predictions for the most important variables analyzed in each survey. These predictions are presented in Tables III.1.9 through III.1.11. The predictions show how the various outcome measures vary with the selected socioeconomic characteristics of the mother and her family. Mean values of the outcomes are also presented.

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*As indicated earlier, information on the number of years married is not available in the EOPP survey.

Table III.1.9

PREDICTIONS FOR THE VARIOUS OUTCOME MEASURES
(Based on CPS results)

	Fraction Receiving AFDC	Fraction Having a Child Support Award	Amount of Award Per Month[a]	Fraction Receiving Child Support[a]	Amount Received Per Month[a]	Fraction Due That is Received[a]	Fraction Receiving Irregularly[b]
Location							
Northeast	.39	.45	$178	.77	$138	.77	.19
Northcentral	.39	.49	152	.73	107	.70	.26
South	.26	.44	166	.77	124	.75	.25
West	.40	.47	185	.75	109	.59	.24
Age of Mother							
20	.40	.46	142	.65	80	.56	.28
30	.36	.46	161	.72	107	.66	.26
40	.32	.46	181	.79	133	.73	.24
Education of Mother							
8	.40	.42	125	.68	75	.60	.22
12	.34	.46	169	.75	119	.70	.24
16	.29	.50	214	.83	162	.76	.25
Race of Mother							
Black	.41	.40	141	.66	70	.50	.35
Other	.32	.49	175	.77	127	.73	.22
Children Between 6 and 12 Years of Age							
0	.33	.45	153	.76	107	.70	.25
1	.37	.46	181	.74	126	.70	.25
2	.41	.48	209	.73	144	.69	.26

Table III.1.9 (concluded)

	Fraction Receiving AFDC	Fraction Having a Child Support Award	Amount of Award Per Month[a]	Fraction Receiving Child Support[a]	Amount Received Per Month[a]	Fraction Due That is Received[a]	Fraction Receiving Irregularly[b]
Employment Status of Mother							
Employed	.28	.47	170	.75	117	.69	.24
Not employed	.51	.43	169	.76	124	.73	.19
Marital Status of Mother							
Divorced	.30	.70	172	.75	118	.69	.26
Legally separated	.32	.59	169	.74	118	.70	.19
Informally separated	.33	.31	171	.74	122	.71	.23
Never married	.43	.12	128	.86	122	.95	.03
Years Married							
1	.35	.45	163	.74	109	.67	.28
5	.35	.46	166	.74	113	.68	.26
10	.35	.46	170	.75	119	.70	.24
Years Since Marital Dissolution							
1	.32	.47	177	.83	132	.75	.26
5	.38	.65	167	.72	113	.68	.24
10	.46	.61	153	.59	90	.59	.21
Overall Mean Prediction	.35	.46	169	.75	118	.70	.24

Note: Predictions are made at the means of variables other than the one in question.

[a]For those with an award.

[b]For those receiving child support.

Table III.1.10

PREDICTIONS FOR THE VARIOUS OUTCOME MEASURES
(Based on AFDC survey results)

	Fraction Having a Child Support Award	Amount of Award Per Month	Fraction Receiving Child Support	Amount Received Per Month	Fraction Due that is Received
Location					
Northeast	.32	$127	.39	$43	.34
Northcentral	.31	121	.39	40	.33
South	.29	106	.36	27	.27
West	.28	125	.33	42	.34
Age of Mother					
20	.30	115	.30	31	.27
30	.30	117	.36	37	.32
40	.30	119	.42	42	.35
Education of Mother					
8	.28	108	.31	28	.26
12	.32	122	.38	41	.24
16	.36	137	.45	54	.39
Race					
Black	.29	117	.37	38	.32
Other	.31	117	.37	37	.32
Children Between 6 and 12 Years of Age					
0	.28	96	.39	34	.35
1	.31	117	.37	37	.32
2	.34	137	.35	40	.29

Table III.3.10 (concluded)

	Fraction Having a Child Support Award	Amount of Award Per Month	Fraction Receiving Child Support	Amount Received Per Month	Fraction Due that is Received
Employment Status of Mother					
Employed	.34	113	.41	42	.37
Not employed	.30	118	.36	36	.31
Marital Status of Mother					
Divorced	.72	133	.36	41	.31
Legally separated	.54	161	.41	47	.31
Informally separated	.23	119	.36	39	.33
Never married	.13	78	.39	27	.35
Years Since Marital Dissolution					
1	.32	123	.38	41	.33
5	.31	113	.37	36	.32
10	.29	101	.36	31	.31
Overall Mean Prediction	.30	117	.37	37	.32

Note: Predictions are made at the means of variables other than the one in question.

[a]For those with an award.

Table III.1.11

PREDICTIONS FOR THE VARIOUS OUTCOME MEASURES
(Based on EOPP survey results)

	Fraction Receiving AFDC	Fraction Receiving Child Support	Amount Received Per Month	Fraction Receiving Irregularly[a]
Location				
Northeast	.62	.19	$45	.20
Northcentral	.48	.25	45	.20
South	.38	.28	53	.18
West	.51	.19	40	.24
Age of the Mother				
20	.57	.20	16	.26
30	.51	.22	39	.22
40	.45	.24	62	.17
Education of the Mother				
8	.57	.16	15	.23
12	.48	.25	57	.20
16	.45	.36	100	.16
Race of the Mother				
Black	.53	.13	16	.20
Other	.46	.29	67	.20
Children Between 6 and 12 Years of Age				
0	.45	.23	42	.22
1	.49	.23	48	.19
2	.54	.23	53	.17
Employment Status of Mother				
Employed	.42	.26	47	.21
Not employed	.57	.19	46	.17

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Table III.1.11 (concluded)

	Fraction Receiving AFDC	Fraction Receiving Child Support	Amount Received Per Month	Fraction Receiving Irregularly[a]
Marital Status of Mother				
Divorced	.46	.31	62	.21
Separated	.46	.19	38	.16
Never married	.58	.11	26	.19
Years Since Marital Dissolution				
1	.49	.24	49	.20
5	.49	.23	47	.20
10	.49	.22	45	.20
Overall Mean Prediction	.49	.23	47	.20

Note: Predictions are made at the means of variables other than the one in question.

[a]For those receiving child support.

In general, our results indicate that socioeconomic characteristics of the mother and her family exert a strong influence on the various AFDC and child support outcomes. The data consistently show that older, more educated women are less likely to receive welfare and more likely to receive child support than younger less educated women. Assuming these variables are measuring human capital characteristics of the mother, we conclude that favorable child care arrangements are partly the result of explicit actions taken by the mother to obtain support. Marital status is also a strong predictor of receipt of welfare and child support. Divorced mothers are much more likely to receive child support and much less likely to receive welfare than are mothers who have never been married. In fact, our results indicate that much of the problem of welfare dependency and lack of child support rests with the never married group. They have almost a 50% chance of being on welfare and less than a 10% chance of receiving child support. Divorced mothers on the other hand have only a 30% chance of receiving welfare and more than a 50% chance of receiving child support. Furthermore, lack of a child support award seems to be the major factor responsible for generating such differences. Only 12% of never married mothers have a child support award while about 70% of divorced mothers have an award. Among all groups having a child support award, about three-quarters actually receive child support payments.

Another important factor that appears to be closely related to child support and welfare recipiency rates is time. Our results suggest that the longer the mother is a single parent, the more likely she is to go on welfare and the less likely she is to receive child support. We attribute this pattern of behavior to a lessening of the emotional bond between the father and his children. Hence, increased efforts to help maintain this bond (through perhaps liberalized custody and visitation arrangements or through specialized counseling sessions) could potentially improve the economic well-being of single parent families.

III.1.1.8 Additional Analyses

Having presented our findings for the basic regression model, we now turn to a more extensive analysis of the CPS and AFDC data sets. First, we report on more elaborate model specifications for the CPS data set. Then we examine additional variables for the AFDC data set.

Additional CPS Results

The child support supplement to the CPS contains information not available in the other two data sets, most importantly information about the absent father. All mothers due child support in 1978 who had been previously married were asked a series of questions about the absent father. These questions pertain to the nature and value of the property settlement (for those divorced), the father's income, and the father's current family situation. Because the information about the absent father is based on the mother's perception, it is likely to be quite unreliable. Moreover, in many instances, the mother was unable to provide answers to these questions. For these reasons, the results reported below should be treated as suggestive only. Nevertheless, because they are the only data of their kind available on a nationwide basis, we feel they are worth close examination.

In addition to information about the absent father, two other pieces of information are used in our extended analysis. First, the mothers were asked whether their child support agreements were court ordered or voluntary. 64% of the mothers due child support in 1978 said they had a court-ordered award. Second, the mothers were asked whether their child support payments were to be received directly from the father, through a court or public agency, or by some other method. 46% said their payments were made through a court or public agency. We include variables measuring this information in the analysis.

Table III.1.12 shows the effects of these additional variables on four outcome measures--the probability of receiving AFDC, the probability of receiving child support, the amount of child support received, and whether child support was received irregularly. Each equation contains all the variables from the basic regression model in addition to the ones reported in the table. The basic regression model coefficients are virtually identical to the ones reported earlier (see Table III.1.6) and are not presented again. As a summary of these other coefficients, we present the

Table III.T.12

ADDITIONAL CPS REGRESSION RESULTS
(Sample of those due child support in 1978, N=1,056)

	AFDC Receipiency	Receipt of Child Support		Amount of Child Support Received	Whether Child Support is Received Irregularly
		Income Definition	Supplement Definition		
1 = Court ordered award	.046* (.024)	-.100*** (.032)	-.181*** (.029)	-303.34*** (125.03)	.024 (.027)
1 = Payments to be received through court or public agency	.083*** (.023)	-.064** (.031)	.025 (.027)	-187.43 (120.05)	.068*** (.026)
Father's income (up to $25 thousand)	-.007*** (.002)	.014*** (.003)	.005 (.003)	32.05** (12.54)	-.004* (.002)
1 = Father's income greater than $25 thousand)	-.129** (.052)	.356*** (.068)	.131** (.061)	1,774.06*** (268.56)	-.164*** (.058)
1 = Father's income unknown	-.090** (.037)	.171*** (.046)	-.023 (.044)	278.24 (190.63)	-.084** (.041)
1 = Father has other children to support	-.060** (.028)	.014 (.037)	-.015 (.033)	68.58 (155.10)	.027 (.031)
1 = Don't know if father has other children to support	-.009 (.036)	-.055 (.047)	-.045 (.042)	17.45 (185.65)	.018 (.040)
Predicted value of outcome at mean of other variables	.29	.51	.84	$1,265	.20

predicted value of the outcome measures evaluated at the means of the basic model variables.

The results indicate that mothers having a court order are more likely to receive AFDC and less likely to receive child support, although the type of obligation does not appear to influence whether child support is received irregularly. This result can be interpreted in at least two ways. First, because mothers having a court order are less likely to receive child support, they are more likely to go on welfare. Second, IV-D agencies may be more likely to seek court orders for mothers on welfare. Either of these interpretations is consistent with the data and it is likely that both play an important role in generating the result.

The finding that court orders are less successful than voluntary agreements in securing child support can also be interpreted in at least two ways. First, voluntary agreements may only be sought in cases where the mother and father are on amicable terms. Second, voluntary agreements may be better because the father may be more willing to make payments under such conditions. If the second interpretation is correct, then a clear policy implication of the result is that more voluntary agreements should be sought by IV-D agencies. Such an approach will be cost-effective not only because it will lead to a higher probability of receiving support but also because it will involve fewer collection costs since use of the court system can be avoided.

However, if the first interpretation is correct, then it is not clear that voluntary agreements will be more cost-effective. They may, in fact, be less cost-effective if they significantly reduce the probability of receiving support in the most difficult cases. Because voluntary agreements are more difficult to enforce than court orders, they should only be sought in cases where the probability of receiving support is expected to be reasonably high. One possible policy that appears to be a reasonable compromise would be to attempt to establish voluntary agreements, but to impose court orders later if payments are missed. In a later section of this study, we report results from the AFDC survey indicating that voluntary

agreements are no more successful than court orders in securing child support for AFDC families. Hence, the evidence on the relative effectiveness of the two types of agreement is uncertain and requires further study.

When child support payments are to be received through a court or public agency, the family is more likely to be on AFDC. This result is expected because all AFDC mothers are required to assign their child support rights to the IV-D agency in their state. Such families are no more likely to receive child support according to the supplement definition. However, they are less likely to receive child support according to the income definition. This is an important finding because it lends credibility to the accuracy of the supplement-based definition of child support while at the same time highlighting an important deficiency in the income-based definition. Nevertheless, such families report a significantly higher frequency of irregular payments. Hence, it appears families for whom child support payments are made to be IV-D agency are aware of such payments but do not think they are being made on a regular basis.

As the absent father's income rises, the probability of the mother receiving AFDC benefits declines and the probability of her receiving child support on a regular basis increases. Though based on sketchy data, this finding is important and suggests that ability to pay is an important determinant of welfare dependency and the mother's economic status. In the next section, when we consider more explicitly the relationship between welfare dependency and receipt of child support, we will have more to say about the role played by the absent father.

The final result given in Table III.1.2 indicates that if the father has other children to support, the mother is no less likely to receive child support and less likely to be on welfare than if the father has no other children to support. This is a perplexing result because additional children to support means additional financial responsibilities and presumably a lower incentive on the part of the father to pay child support. Hence, we would have expected this variable to be positively

correlated with the probability of receiving welfare and negatively correlated with probability of receiving child support.

Additional AFDC Results

The AFDC survey contains two additional pieces of information that may affect the various child support outcomes. First, there is information on the absent father's whereabouts. Second, there is information about the welfare history and current WIN status of the mother.

Table III.1.13 presents results that include variables based on this information. As one would expect, location of the father plays an important role in determining whether there is an award and whether child support is received, once an award has been made. These variables do not exhibit a strong pattern on the amount of the award, but do have an impact on the amount received.

AFDC mothers are more likely to have an award if the father lives in the same state. Being in the same county or being elsewhere in the state does not seem to matter. The same holds true for actual receipt of child support. In both cases the probabilities are more than doubled when the father resides in the same state. This is an important finding because it implies that IV-D agency efforts are likely to be successful even if the father does not reside in the same county as the mother. If the father is in a different state, the probability of the mother having an award is much lower but is still greater than if the father lives outside of the U.S. The probability of receiving support falls more dramatically when the father resides in another state. Clearly, IV-D agency efforts are made considerably more difficult when the father and mother do not reside in the same state.

The longer the mother has been on welfare, the more likely she is to have an award, however she is less likely to receive support. This implies that IV-D efforts to obtain an award are eventually successful, but the

Table III.1.13

ADDITIONAL AFDC REGRESSION RESULTS

	All Single Mothers (N=14,367)	Those With an Award (N=4,067)		
	Whether an Award	Award Amount	Whether Receive Support	Amount Received
Location of Father				
1 = Same county	.267*** (.008)	3.83 (3.22)	.235*** (.020)	23.04*** (2.86)
1 = Same state	.221*** (.012)	4.66 (4.06)	.222*** (.025)	19.97*** (3.61)
1 = Different state, in U.S.	.108*** (.011)	3.65 (3.94)	.064*** (.021)	2.10 (3.50)
1 = Outside U.S.	-.003 (.033)	-.630 (16.22)	.191* (.101)	8.76 (14.41)
1 = Unknown	-- --	-- --	-- --	-- --
Welfare Information				
Years on AFDC	.007*** (.001)	-2.47*** (.40)	-.004* (.003)	-.114*** (.36)
1 = WIN registrant	.023* (.014)	15.81*** (5.17)	-.045 (.032)	-8.92* (4.59)
1 = Mandatory WIN registrant	-.015 (.016)	-15.87*** (5.84)	.087** (.037)	15.28*** (5.19)
Predicted Value of Outcome at Mean of Other Variables	.18	$122	.24	$28

likelihood that the father will pay declines over time so as to offset any positive effect of having an award. Hence, in order to be successful, the IV-D agencies need to work quickly. The more time that elapses before an award is established, the lower the ultimate payoff.

Voluntary WIN registrants are more likely to have an award but less likely to receive child support than mandatory WIN registrants. One possible explanation for this pattern of effects is that exempt mothers register for WIN because they have difficulty in obtaining child support and wish to invest in training activities that will enhance their future earnings and allow them to become self-sufficient. Another possible explanation is that voluntary WIN registrants are more motivated in general than mandatory WIN registrants so that they are more likely to seek an award. Howeve., the father perceives less of a need for child support in such cases and is hence less likely to pay.

III.2 Relationship Between Welfare Status and Receipt of Child Support

Up until now, we have been examining the direct link between socioeconomic characteristics of single parent families and various measures of AFDC and child support recipiency. We have not attempted to ascertain how receipt of AFDC and child support are interrelated. In this section, we extend the previous analysis by investigating such an interrelationship.

The analysis in this section is based on data from the CPS and EOPP surveys, where economic and demographic information on both welfare and non-welfare families are available. The availability of data on non-welfare families enables us to construct empirical models capable of predicting both welfare status and receipt of child support as well as various combinations of the two outcomes. Data from the AFDC survey cannot be used in the analysis because all sample members receive welfare benefits and hence provide no information on the determinants of welfare status.

We begin our investigation by presenting some findings that allow for simple additive effects of each outcome measure on the other. We then present a more comprehensive analysis that allows for complete interaction among welfare status, receipt of child support, and socioeconomic characteristics of the mother and her family. Using the results of the more comprehensive analysis, we present a series of predictions showing how socioeconomic characteristics interact with welfare status and receipt of child support. These predictions form the basis of our policy conclusions, which we present at the end of the section.

III.2.1 Simple Extensions of the Basic Regression Model

III.2.1.1 Effects of Child Support Recipiency on Welfare Status

Earlier, we demonstrated that several important economic and demographic characteristics affect the receipt of welfare. Data from both the CPS and EOPP surveys indicate that geographic location, race, age of the mother, education of the mother, family structure, work behavior of the mother, and marital history of the mother are all strong predictors of the receipt of welfare. Since many of these variables also affect the receipt of child support, it is of interest to determine whether they exert independent effects.

To investigate this possibility, we reran the basic regression model (Table III.1.1) including as an additional independent variable, a dummy variable indicating whether or not the mother received child support payments during 1978. Such a procedure has the obvious limitation that the coefficients may be biased because of the simultaneous nature of the child support and welfare recipiency decisions. However, the results should provide a rough indication of whether receipt of child support exerts an independent effect on welfare status.

As indicated in the previous section, data from the CPS are used to construct two different measures of child support recipiency. One measure

is based on information provided in the child support supplement of the CPS questionnaire. The other measure is based on information given in the income section of the CPS questionnaire. For the EOPP data, the measure of child support recipiency we use is conceptually equivalent to the income-based definition in the CPS survey, being based on similar type questions.*

As discussed above, the income-based definition is not an accurate indicator of receipt of child support for AFDC families that have child support paid directly to the IV-D agency or their behalf. Because of the comprehensive nature of the supplemental questions on child support, the supplement-based definition of child support receipt is much more accurate for AFDC families. Overall, using the supplement-based definition, 34.5% of the mothers in the CPS sample report receiving child support whereas only 26.8% report receiving child support using the income-based definition. In the EOPP sample, where an income-based definition is also used, 22.7% of the mothers report receiving child support, which is very close to the percentage in the CPS sample using the income-based definition. The definitional differences are even greater for AFDC families. In the AFDC samples, 21.3% of the mothers report receiving child support using the CPS supplement-based definition, while only 7.5% of the CPS families and 7.4% of the EOPP families report receiving child support using the income-based definition. As we shall see, differences in measurement of receipt of child support significantly affect the impact of this variable on the probability of receiving welfare and lead to different policy implications regarding the importance of receiving child support on welfare status.

Table III.2.1 summarizes the findings when the child support variable is included on the right-hand side of the welfare status equation (the full

*In both the CPS and EOPP samples, the income-based definition of child support includes a very small fraction of mothers who report receiving alimony but not child support, which is an unusual situation for families with children. Mothers receiving only alimony are excluded from our supplement-based definition of child support, although their exclusion has virtually no effect on the empirical results.

Table III.2.1

EFFECT OF RECEIVING CHILD SUPPORT ON WELFARE STATUS

	Effect on Probability of Receiving Welfare	
	CPS Survey (N=2,299)	EOPP Survey (N=3,749)
1=Receipt of Child Support[a]		
Income definition	-.195*** (.020)	-.261*** (.017)
Supplement definition	-.066*** (.019)	--
Sample Statistics		
Fraction receiving welfare	.349	.487
Fraction receiving child support		
Income definition	.268	.227
Supplement definition	.345	--

***Significant at 1% level.

[a]Standard errors are in parentheses.

Note: Full results presented in Appendix Table A-1.

regression results are presented in Appendix Table A-1). As one would expect, receipt of child support significantly reduces the probability of being on welfare, holding constant economic and demographic characteristics of the mother and her family. Those receiving child support (using the income-based definition) are 20 percentage points less likely to receive welfare in the CPS sample and 26 percentage points less likely in the EOPP sample. These represent percentage effects of 49% inb the CPS sample and 48% in the EOPP sample, respectively.* These estimates are remarkably close, considering that the two data sources are independent.

As indicated above, estimates using the income-based definition of child support are likely to be biased because of measurement error in the child support variable. That is, many families receiving AFDC benefits are likely to report zero child support payments even though such payments are being made for them through the IV-D agency. This implies that the estimated effects using the income-based definition are likely to be overstated.

When we use the preferred supplement-based definition of child support recipiency, the impact on the probability of receiving welfare is lowered considerably. The effect is -.07, or an 18% lower probability of receiving welfare for recipients of child support. This is one-third the effect obtained using the income-based definition. Thus, the more credible results using the supplement-based definition imply a modest, but statistically significant impact of child support recipiency on the probability of receiving welfare in 1978.

Inclusion of the child support variable as an additional explanatory variable on the right-hand side of the welfare status equation has little

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*Percentage effects are calculated as b/(y-bx), where b is the estimated coefficient on the child support variable, y is the mean fraction of AFDC recipients in the sample, and x is the mean fraction of child support recipients in the sample. All percentage calculations presented in this section are based on this general formula.

impact on the coefficients of the other explanatory variables (see the Appendix Table A-1). Geographic location, race, family structure, age, education, and employment behavior of the mother continue to exert strong independent impacts on welfare recipiency. The only exception is for the marital status variables where the coefficients (relative to the never married category) decreased by about 20 percentage points. Thus, holding constant receipt of child support, mothers who have never been married continue to be more likely to receive welfare than other single mothers. However, the effects are lessened due to the fact that never married mothers are also much less likely to receive child support.

These results suggest that many of the characteristics that determine welfare dependency also influence whether or not a family receives child support. Child support alone has a fairly limited impact on welare dependency. A major reason for such a relatively small impact may be low child support award amounts. The CPS data indicates that in 1978 the average award amount per single-parent familiy was $170 per month, or about $105 per child. Because the average AFDC benefit was about $250 per month, it is clear that even if all existing obligations were fully met, child support alone would not be sufficient to cause a mother to escape welfare dependence. Higher award amounts and/or other sources of income (primarily earnings) are necessary.

Of course, not all existing obligations are fully met. However, in the CPS sample, 75% of the mothers with an award received child support and among those receiving support, 85% of the award amount was paid. Unfortunately, only 46% of the mothers had an award. Hence, increasing award amounts and establishing awards rather than enforcing existing obligations appear to be the main policies that could eventually lead to a significant reduction in welfare dependency. This implies that recent proposals to establish a general system of wage withholding for child support payments may be of limited success unless new methods of establishing support obligations are also developed.

Table III.2.2

EFFECTS OF WELFARE STATUS ON THE PROBABILITY OF RECEIVING CHILD SUPPORT

	CPS	EOPP Survey
Effect of Receiving Welfare on[a]		
Probability of receiving child support		
Income definition	-.200*** (.021)	-.234*** (.015)
Supplement definition	-.077*** (.022)	-- --
Amount of child support received	-136.19* (74.99)	-779.60*** (71.74)
Probability of receiving child support on an irregular basis[b]	.018 (.045)	.160*** (.033)

Table III.2.2 (Concluded)

Sample Statistics	CPS	EOPP Survey
Fraction receiving welfare		
Total sample	.349	.487
Recipients of child support	.214	.202
Fraction of total sample receiving child support		
Income definition	.268	.227
Supplement definition	.345	--
Mean yearly amount of child support received		
Total sample	$652	$562
Recipients of child support	$1,890	$2,476
Fraction receiving child support on an irregular basis[b]	.236	.197

[a]Standard errors are in parentheses.

[b]For those receiving child support.

*Significant at 10% level.

***Significant at 1% level.

Note: Full results are presented in Appendix Tables A-2, A-3, and A-4.

III.2.1.2 Effects of Welfare Status on Receipt of Child Support

We also attempted to determine whether welfare recipients are less likely to receive child support. To investigate this possibility, we reran the basic regression model with three child support outcome measures as dependent variables--the probability of receiving child support, the amount of child support received, and the probability of receiving child support on an irregular basis. We include as explanatory variables in each equation a dummy variable that takes on the value of one of the family reports receiving AFDC benefits, and zero otherwise.

The results are summarized in Table III.2.2. (Full regression results are presented in Appendix Tables-A-2-A-4.) These results are consistent with the previous findings. Using the income-based definition of child support as the dependent variable, AFDC mothers are much less likely to receive child support than non-AFDC mothers. However, when the more appropriate supplement-based definition of child support is used, the effect falls considerably. The findings using the supplement-based definition imply that welfare recipients are about 21% less likely to receive child support than are non-welfare recipients, which is considerably less than the estimated effects using the income-based definition.

When amount of child support received is used as the dependent variable, the differences between the CPS and EOPP results, which use different definitions of child support amount, are dramatic. In the CPS sample, where the supplement-based definition of child support amount is used, welfare recipients are estimated to receive about $136 per year (or 20%) less in child support than non-welfare recipients. In the EOPP sample, where an income-based definition of child support amount is used, welfare recipients are estimated to receive about $780 per year (or 83%) less than

non-welfare recipients.* Based on our previous discussion, the CPS result should be viewed as being closest to the "true" effect of child support amount on welfare recipiency.

Finally, we examined the effect of welfare status on the probability of receiving child support irregularly for recipients of child support. Recall from Figure III.1 earlier that in the EOPP sample, we define a mother as receiving child support on an irregular basis if she had more than one continuous spell of child support during the observation period (roughly 1 3/4 years) or if she received child support early in the observation period but not later in the observation period. In the CPS sample, irregular receipt of child support is defined directly on the basis of the responses to a question about the frequency of receipt of child support. The CPS measure does not utilize data on spells of child support and thus may be a less accurate indicator of the regularity of receipt.

As Table III.2.2 indicates, the CPS and EOPP surveys give different results for the effects of welfare status on regularity of receipt of child support. The CPS data suggest that welfare recipients are no less likely to receive child support irregularly than are non-welfare recipients while the EOPP data suggest that they are. In fact, the EOPP data suggest that welfare recipients are almost twice as likely to receive child support on an irregular basis as non-welfare recipients.

These results should be interpreted with caution, however, because as suggested earlier, the EOPP survey probably fails to identify cases where child support payments are made directly to the IV-D agency. If such cases are more likely to receive child support regularly, then the EOPP results in Table III.2.2 will be overstated. Nevertheless, the EOPP data do suggest

*It is not possible to construct an income-based definition of child support amount for the CPS sample because this amount is not given separately in the income section of the questionnaire. (It is combined with a measure of "other income.")

that irregular receipt of child support may be an important factor determinining receipt of welfare.

III.2.2 A More Comprehensive Analysis of the Relationship Between Welfare Status and Receipt of Child Support

We now turn to a more comprehensive analysis of the relationship between welfare status and receipt of child support. For this analysis, we define four possible family situations for a mother and her children:

S_1 = The family receives AFDC but not child support.
S_2 = The family receives child support but not AFDC.
S_3 = The family receives both AFDC and child support.
S_4 = The family receives neither AFDC nor child support.

These four family situations are mutually exclusive and exhaustive so that the probability of a family being in any given situation is between zero and one and the sum of the probabilities over all four possible family situations is equal to one.

Our objective is to determine how socioeconomic characteristics of the mother and her family influence the probability of being in each of these four family situations. We take a very general approach, allowing the effects to be different for each family situation. From the results of our analysis, we will derive some implications for how changes in family circumstances affect a family's likelihood of receiving welfare and/or child support. We also attempt to determine whether receipt of child support exerts an independent effect on welfare dependency.

III.2.2.1 The Statistical Model*

The probability that a given family will be in family situation j may be expressed as:

$$P_j = Pr\ (S = S_j)\ ,\ j=1,\ldots 4 \qquad (1)$$

In statistical terminology, these P_j are called joint probabilities.

The statistical model we employ to relate socioeconomic characteristics to these joint probabilities is called the multinomial logit model.** The multinomial logit model is given as follows:

$$P_j = \frac{\exp\ (x\ b_j)}{\sum_{k=1}^{4} \exp\ (x\ b_k)}\ ,\ j=1,\ldots 4, \qquad (2)$$

where x = a vector of socioeconomic characteristics for a given family,

b_j = a vector of unknown parameters for situation j.

Note that each of these probabilities falls between zero and one and that the sum of the probabilities over all family situations is equal to one.

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*This section may be skipped by readers not interested in the details of the statistical model.

**For a discussion of the multinomial logit model, see Henri Theil, "A Multinomial Extension of the Linear Logit Model," International Economic Review, Vol. 10, October 1969, pp. 251-260, or Daniel McFadden, "Conditional Logit Analysis of Qualitative Choice Behavior," in P. Zarembka (ed.), Frontiers of Econometrics, New York, Academic Press, 1974, or Marc Nerlove and S. J. Press, Univariate and Multivariate Log-Linear and Logistic Models, Santa Monica, California, Rand Corporation Report R-1306/NIH-EDA, 1973.

As it stands, the parameters of this statistical model (the b_js) are not uniquely identified because the addition of a constant to all parameter values would leave the probabilities unchanged. To achieve identification, we must impose a normalization on the parameter vector b_j. One convenient normalization, which we adopt, is to set all the parameters of one of the family situations equal to zero. In our analysis, we choose to get $b_4 = 0$. The choice of the normalization is completely arbitrary and has no bearing on the empirical results obtained or on the implied probability estimates.

By normalizing $b_4 = 0$, we are able to rewrite equation (2) as follows:

$$\log (P_j/P_4) = xb_j. \qquad (3)$$

This equation says that the logarithm of the "odds" of being in family situation j relative to family situation 4 is a linear function of the x's. The parameter vector b_j measures the effects of the socioeconomic characteristics on the log of the odds of being in family situation j relative to family situation 4.*

From estimates of the b_j, it is straightforward to calculate various unconditional and conditional probabilities of receiving child support and welfare as functions of the joint probabilities. The unconditional (or marginal) probability of receiving child support (CS) is given by

$$P(CS) = P_2 + P_3 \qquad (4)$$

*In general, $\log (P_j/P_k) = x(b_j - b_k)$, $j \neq k$, so that the difference in the parameter values for all non-normalized family situations represents the effects on the logarithm of the odds for those two family situations.

The unconditional probability of receiving AFDC is given by

$$P(\text{AFDC}) = P_1 + P_3. \qquad (5)$$

It is also possible to calculate conditional probabilities of receiving child support and AFDC. For child support these conditional probabilities are given by:

$$P(\text{CS}|\text{AFDC}) = \frac{P_3}{P_1 + P_3} \qquad (6)$$

$$P(\text{CS}|\text{no AFDC}) = \frac{P_3}{P_2 + P_4}. \qquad (7)$$

For AFDC, the conditional probabilities are given by:

$$P(\text{AFDC}|\text{CS}) = \frac{P_3}{P_2 + P_3} \qquad (8)$$

$$P(\text{AFDC}|\text{no CS}) = \frac{P_3}{P_1 + P_4}. \qquad (9)$$

The unconditional and conditional probabilities given in (4)-(9) can be used to assess whether AFDC and child support recipiency are independent of one another. For example, a comparison of (6) and (7) will tell us whether receipt of child support is independent of welfare status. If there is independence, then equations (4), (6), and (7) should yield similar probability estimates and we would conclude that receipt of child support does not depend on welfare status. Similarly, if the probability estimates in (5), (8), and (9) are similar, we would conclude that being on welfare is not affected by receipt of child support. These comparisons can be made either for the sample as a whole or for certain subgroups within the sample (such as those due child support).

III.2.2.2 Data and Variables

For the empirical analysis, we use data from the CPS. In specifying whether a mother receives child support, we utilize the supplement-based definition, which we view as being the most accurate child support measure available in the CPS.

Table III.2.3 gives the means of the variables used in the analysis. The means are presented for the sample as a whole and for each of the four family situations depicted earlier.*

Roughly 28% of the sample of single mothers receives AFDC only and 7% receive both AFDC and child support (170/2,299). Hence, about one-fifth of the AFDC recipients (who comprise about one-third of the entire sample) receive child support (170/(624+170)). Similarly, about 27% of the sample receives child support only (624/2,299), implying that about one-fifth of the families receiving child support also receive AFDC (170/(624+170)). Like AFDC recipients, child support recipients comprise about one-third of the sample. Thus, these figures indicate some overlap between receipt of AFDC and child support (about a 20% overlap), but for the most part, families tend to receive either one or the other. About 38% of the sample receives neither AFDC nor child support (872/2,299).

The means vary significantly over the four family situations. Among the demographic variables, blacks are 5 times more likely to receive only AFDC than receive only child support and recipients of only AFDC tend to be younger and less educated than recipients of only child support. Families receiving both AFDC and child support tend to be similar in terms of these characteristics to the sample as a whole. Families with younger children (under the age of 6) are more likely to be AFDC recipients and less likely to receive child support.

*The means are unweighted sample means. They correspond only approximately to nationwide means for the same subgroups.

Table III.2.3

MEANS OF VARIABLES BY FAMILY SITUATION
(CPS Sample)

	(1) Total (N = 2,299)	(2) AFDC Only (N = 633)	(3) Child Support Only (N = 624)	(4) Both AFDC and Child Support (N = 170)	(5) Neither AFDC nor Child Support (N = 872)
Demographic Characteristics					
1 = Head of family	.72	.79	.84	.87	.56
1 = Northeast	.21	.25	.18	.29	.18
1 = Northcentral	.23	.25	.26	.26	.20
1 = West	.22	.19	.27	.24	.20
1 = South	.34	.31	.29	.21	.42
1 = Black	.32	.49	.09	.29	.37
Age (years)	32.0	29.7	35.3	32.4	31.1
Education (years)	11.5	10.6	12.5	10.8	11.5
Number of children under 6	.39	.66	.24	.62	.25
Number of children between 6 and 12	.52	.65	.56	.68	.35
Number of children between 12 and 18	.54	.50	.67	.71	.43
Employment Characteristics (1978)					
1 = Employed	.70	.40	.91	.51	.81
Earnings ($1,000s)	4.47	1.15	7.36	1.62	5.37

Table III.2.3 (concluded)

	(1) Total	(2) AFDC Only	(3) Child Support Only	(4) Both AFDC and Child Support	(5) Neither AFDC nor Child Support
Marital Information					
1 = Divorced	.48	.27	.83	.58	.38
1 = Legally separated	.08	.06	.08	.16	.07
1 = Informally separated	.15	.23	.07	.12	.16
1 = Never married	.29	.44	.02	.14	.39
Years married	6.39	4.08	10.41	7.56	4.95
Years since marital dissolution	3.09	3.06	3.63	3.31	2.69
1 = Married more than once	.12	.09	.14	.12	.12
	(N = 1,056)	(N = 108)	(N = 624)	(N = 170)	(N = 154)
Child Support Information for those Due Child Support					
1 = Court ordered child support	.64	.83	.54	.67	.86
1 = Payments are to be received through court or public agency	.46	.59	.36	.68	.50
Fathers annual income (up to $25 thousand) ($1,000s)	4.12	2.62	5.09	2.98	2.52
1 = Fathers income greater than $25,000	.08	.01	.12	.02	.01
1 = Fathers income unknown	.52	.63	.45	.52	.70
1 = Father has other children to support	.20	.19	.20	.14	.26
1 = Don't know if father has other children to support	.12	.19	.09	.14	.18

Among the employment variables, there are some striking differences in the sample means. About 40% of the AFDC only families are employed (column (2)), while over 90% of the child support only families are employed (column (3)). Families receiving only child support earn on average about seven times as much per year as families receiving only AFDC ($7,360 versus $1,150). In contrast, families receiving both AFDC and child support have earnings that are similar to the AFDC only group.

As one would expect, marital status differs significantly across the four family situations. While roughly one-half the sample consists of divorced women, over 80% of the sample receiving child support only are divorced (column (3)), while only one-quarter of the families receiving AFDC only are divorced women (column (2)). A significantly higher fraction of mothers who were never married receive AFDC only while virtually none of the never married women receive child support only. Furthermore, never married women receiving AFDC are not very likely to also receive child support. Only 8% of the never married AFDC women also receive child support, while 37% of the divorced AFDC women receive child support.*

Receipt of AFDC and child support varies with the length of time the mother was married. Women receiving only AFDC were married a much shorter time than women receiving only child support (4.1 years versus 10.4 years).

Roughly 46% of the sample was due child support in 1978 (1,056/2,299).** Of those due child support, roughly three-quarters actually received child support. Child support recipiency is greater among

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*These percentages are calculated as follows. There are 302 never married women on AFDC ((.44)(633) + (.14)(170)). Of these, 23 received child support ((.14)(170)). Hence, 8% of the never married AFDC women receive child support (23/302). Similarly, there are 270 divorced women on AFDC ((.27)(633) + (.58)(170)). Of these, 99 received child support ((.58)(170)). Hence, 37% of the divorced AFDC women received child support (99/270).

**This is a striking statistic. It implied that support obligations had not been established for over one-half the cases.

non-AFDC families. About 80% of the non-AFDC families (624/778) and 61% of the AFDC families (170/278) due child support actually received child support in 1978. As indicated earlier, these figures for AFDC families are larger than corresponding figures from the AFDC Recipient Characteristic Study, however, after adjusting for the different time frames used (annual data in the CPS and monthly data in the AFDC Recipient Characteristics Study), the fraction of families receiving child support is similar.

Among those due child support, almost two-thirds had a court order (column (1)) and one-third were due child support through a voluntary written agreement or other arrangement. However, among families receiving only AFDC, over 80% had a court order (column (2)) while among families receiving only child support, about one-half had a court order (column (3)). Of those receiving child support, 57% had a court order (451/794) and among those not receiving child support, 85% had a court order (222/262). It appears, therefore, that when voluntary agreements exist, they usually result in payment of child support and that they entail a greater success rate than court orders. The multivariate analysis presented below tends to confirm this result.

Court orders are more prevalent among AFDC families. Overall, 73% of AFDC families due child support had a court order (203/278) where only 60% of non-AFDC families had a court order (469/778). The apparent greater success rate for voluntary agreements holds for both AFDC and non-AFDC families. Among AFDC families receiving child support, 67% had a court order (column (4)) while among AFDC families not receiving child support, 83% had a court order (column (2)). Similarly, among non-AFDC families receiving child support, 54% had a court order (column (3)) while among non-AFDC families not receiving child support, 86% had a court order (column (5)).*

*While the CPS data suggest that voluntary agreements have a higher success rate than court orders among AFDC families, the AFDC survey data do not generate the same conclusions (see our analysis below in Section III.4).

The CPS contains some information about the absent father. However, as indicated earlier these data are probably somewhat unreliable because they are based on the mother's perception. Nevertheless, they are the only major survey data available on absent fathers' economic situation and we have attempted to make use of them in our analysis.

For cases where information is available (48% of the sample), 83% of the fathers have an annual income below $25,000 (.40/.48). The average income among this group is about $10,300 (4,120/.4). In roughly one-fifth of the cases, the father has other children to support, either from a prior or subsequent relationship (column (1)).

Table III.2.4 presents mean child support and welfare recipiency rates for various groups. These means are not adjusted for differences in socioeconomic characteristics of the various groups and are presented to illustrate the potential dangers in inferring causality from unadjusted means. The figures seem to indicate that receipt of child support greatly reduces the probability of receiving welfare. However, as our earlier results indicate (see Section III.2.1.1), it is not receipt of child support that reduces the likelihood of receiving welfare but rather the characteristics of the mothers and their families that make them more likely to receive child support and less likely to receive welfare. As we shall see, the results from our multivariate analysis confirm this result. We fiond that for the sample as a whole, holding family characteristics constant, the probability of receiving welfare is only about 11% lower for families who receive child support.

III.2.2.3 Results

The multinomial logit model is estimated on two different samples--the full sample of single mothers (N=2,299) and the subsample of single mothers due child support in 1978 (N=1,056). The model estimated on the full sample

Table III.2.4

RECEIPT OF AFDC AND CHILD SUPPORT AMONG SAMPLE MEMBERS

	Sample Mean Fraction	
	All Single Mothers	Single Mothers Due Child Support
Receipt of AFDC		
Overall	.35	.26
Among recipients of child support	.21	.21
Among non-recipients of child support	.42	.41
Receipt of Child Support		
Overall	.35	.75
Among AFDC recipients	.21	.61
Among non-AFDC recipients	.42	.80

Note: These means do not hold socioeconomic characteristics of the various groups constant.

does not contain variables indicating type of child support arrangement, whether payments are made through a court or agency, and information about the absent father. These variables are excluded because they are only available for mothers due child support. Hence, the model cannot be estimated on the full sample with these variables. Instead, a second model is estimated on the restricted sample of mothers due child support, where these variables can be included.

Tables III.2.5 and III.2.6 present the parameter estimates for the two models. Because of the nonlinear functional form of the logit model, the parameter estimates are not easy to interpret. However, the signs of the coefficients and their magnitudes relative to one another indicate the direction of the effect on the joint probabilities. For example, if the coefficient for a certain family situation is positive, the effect on the joint probability for that family situation is positive relative to the omitted category (in this case category 4, the probability of receiving neither welfare nor child support). Thus, the negative coefficient of -.074 on the education variable in Table III.2.5 implies that women with greater education are significantly less likely to receive AFDC only relative to receiving neither AFDC nor child support. Similarly the +.196 difference in the education coefficient for the first two columns of Table III.2.5 (.122-(-.074)) implies that women with greater education are much more likely to receive only child support than only AFDC.

Because the coefficients in Tables III.2.5 and III.2.6 are difficult to interpret, we have used these results to generate a series of predicted probabilities indicating the effects of certain variables. These predicted probabilities are derived using equations (4)-(9) and are presented in Tables III.2.7 and III.2.8. Significance levels of differences in the predicted probabilities are also reported to provide an indication of the

Table III.2.5

RESULTS FROM MULTINOMIAL LOGIT MODELa
(CPS-Full Sample)

	AFDC Only	Child Support Only	Both AFDC and Child Support
Demographic Characteristics			
1 = Head of family	1.587*** (.229)	.868*** (.214)	1.412*** (.342)
1 = Northeast	.764*** (.187)	.091 (.181)	1.095*** (.276)
1 = Northcentral	1.032*** (.180)	.219 (.168)	1.075*** (.275)
1 = West	1.083*** (.198)	.167 (.169)	1.300*** (.289)
1 = South	-- --	-- --	-- --
1 = Black	.490*** (.157)	-.907*** (.180)	.350 (.234)
Age (years)	-.036*** (.010)	.012 (.009)	-.016 (.015)
Education (years)	-.074** (.029)	.122*** (.030)	-.074* (.042)
Number of children under 6	.306** (.129)	-.292** (.146)	.322* (.165)
Number of children between 6 and 12	.280*** (.098)	.066 (.102)	.205 (.129)
Number of children between 12 and 18	-.046 (.091)	-.138 (.089)	.088 (.118)
Employment Characteristics (1978)			
1 = Employed	-.533*** (.170)	.154 (.209)	-.375 (.243)
Earnings ($1,000s)	-.330*** (.030)	-.020 (.010)	-.300*** (.040)

Table III.2.5 (concluded)

	AFDC Only	Child Support Only	Both AFDC and Child Support
Marital Information			
1 = Divorced	-.616** (.251)	2.853*** (.295)	1.917*** (.361)
1 = Legally separated	-.956*** (.326)	2.248*** (.344)	1.821*** (.410)
1 = Informally separated	-.584** (.242)	1.573*** (.328)	.556 (.391)
1 = Never married	-- --	-- --	-- --
Years married	.014 (.014)	.020* (.011)	.003 (.019)
Years since marital dissolution	.107*** (.023)	-.071*** (.020)	-.021 (.032)
1 = Married more than once	-.289 (.230)	-.558*** (.183)	-.931*** (.308)
Constant term	.204 (.462)	-4.546*** (.495)	-2.719*** (.695)
Summary Statistics			
Mean of dependent variable	.275	.271	.074
-2 log likelihood		4,087	
Sample size		2,299	

Note: Omitted (normalized) category is neither AFDC nor child support. Coefficients are relative to this category.

[a]Estimated asymptotic standard errors in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Table III.2.6

RESULTS FROM MULTINOMIAL LOGIT MODEL[a]
(CPS-Sample of Those Due Child Support in 1978)

	AFDC Only	Child Support Only	Both AFDC and Child Support
Demographic Characteristics			
1 = Head of family	1.652***	1.152***	1.352***
	(.567)	(.347)	(.474)
1 = Northeast	1.258***	.187	1.340***
	(.484)	(.317)	(.421)
1 = Northcentral	1.338***	.075	.902**
	(.423)	(.274)	(.391)
1 = West	1.055**	-.090	1.298***
	(.461)	(.275)	(.403)
1 = South	--	--	--
	--	--	--
1 = Black	1.118***	-.400	.675*
	(.426)	(.311)	(.386)
Age (years)	-.088***	.027*	-.014
	(.030)	(.015)	(.021)
Education (years)	-.111	.091*	-.080
	(.075)	(.050)	(.067)
Number of children under 6	.440	-.394*	.394
	(.276)	(.239)	(.264)
Number of children between 6 and 12	.302	-.121	.270
	(.212)	(.167)	(.200)
Number of children between 12 and 18	.164	-.180	.091
	(.197)	(.145)	(.178)
Employment Characteristics (1978)			
1 = Employed	-.930**	-.428	-1.216***
	(.467)	(.402)	(.437)
Earnings ($1,000s)	-.333***	-.032	-.308***
	(.054)	(.021)	(.045)

Table III.2.6 (continued)

	AFDC Only	Child Support Only	Both AFDC and Child Support
Marital Information			
1 = Divorced	.338 (.992)	-.284 (.757)	-.145 (.858)
1 = Legally separated	.067 (1.057)	-.449 (.803)	.030 (.916)
1 = Informally separated	-.004 (1.035)	-.886 (.791)	-.741 (.905)
1 = Never married	-- --	-- --	-- --
Years married	-.001 (.035)	-.0004 (.018)	.008 (.026)
Years since marital dissolution	.130** (.051)	-.091*** (.032)	-.028 (.046)
1 = Married more than once	.125 (.429)	-.482* (.282)	-.993** (.416)
Child Support Information			
1 = Court ordered child support	-.233 (.421)	-1.521*** (.275)	-1.265*** (.351)
1 = Payments to be made through court or public agency	.249 (.317)	-.020 (.210)	.957** (.291)
Father's annual income (up to $25 thousand) ($1,000s)	-.009 (.044)	.052** (.026)	-.025 (.037)
1 = Father's income greater than $25 thousand	-.352 (1.394)	2.022** (.801)	.376 (1.021)
1 = Father's income unknown	-.557 (.539)	-.155 (.352)	-.993* (.476)
1 = Father has other children to support	-.720* (.394)	-.213 (.249)	-.571 (.362)
1 = Don't know if father has other children to support	-.235 (.437)	-.346 (.304)	-.222 (.409)

Table III.2.6 (concluded)

	AFDC Only	Child Support Only	Both AFDC and Child Support
Constant term	1.662 (1.447)	.771 (1.001)	1.557 (1.242)
Summary Statistics			
Mean of dependent variable	.102	.591	.161
-2 log likelihood		1,638	
Sample size		1,056	

Note: Omitted (normalized) category is neither AFDC nor child support. Coefficients are relative to this category.

[a]Estimated asymptotic standard errors in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Table III.2.7

PREDICTED PROBABILITIES OF RECEIPT OF CHILD SUPPORT
(Based on Multinomial Logit Analysis of CPS Data)

	Probability of Receiving Child Support	Conditional Probabilities: Receipt of Child Support Given AFDC Recipient	Conditional Probabilities: Receipt of Child Support Given Non-AFDC Recipient
All Single Mothers			
Annual Earnings of Mother			
0	.22	.20	.27
$1,000	.26**	.23	.29
3,000	.27	.24	.29
5,000	.28	.25	.28
7,000	.27	.26	.28
9,000	.27	.27	.27
Race			
Black	.19	.22	.17
White or other	.32***	.25	.34***
Age			
20	.23	.20	.25
30	.26	.23	.27
40	.29	.27	.29
Years of Education			
8	.21	.24	.20
12	.28***	.24	.29***
16	.37**	.24	.40***
Number of Children			
1 aged less than 6	.27	.23	.29
None aged less than 6	.31*	.23	.35**
1 aged 6 to 12	.29	.22	.33
None aged 6 to 12	.29	.24	.32
1 aged 12 to 18	.29	.24	.31
None aged 12 to 18	.30	.22	.34
Marital Statusa			
Divorced	.51***	.44***	.52***
Legally separated	.40***	.50***	.37***
Informally separated	.22***	.16*	.23***
Never married	.08	.10	.07

Table III.2.7 (continued)

	Probability of Receiving Child Support	Conditional Probabilities: Receipt of Child Support Given AFDC Recipient	Conditional Probabilities: Receipt of Child Support Given Non-AFDC Recipient
Years Married			
1	.41	.39	.41
6	.42	.38	.44*
11	.44	.36	.46*
Years Since Separation or Divorce			
1	.47	.44	.48
3	.43***	.38***	.44***
6	.36***	.29***	.39***
Prediction at Mean of All Variables	.27	.24	.27
Single Mothers Due Child Support			
Type of child support obligation			
Court ordered	.75	.63	.77
Voluntary agreement or other	.93***	.83***	.93***
Fathers Annual Income			
$ 5,000	.83	.74	.85*
10,000	.86*	.72	.88*
15,000	.88*	.70	.90**
20,000	.91**	.69	.92***
25,000	.93***	.67	.94***
Greater than 25,000	.96	.86	.97

Table III.2.7 (concluded)

	Probability of Receiving Child Support	Conditional Probabilities: Receipt of Child Support Given AFDC Recipient	Conditional Probabilities: Receipt of Child Support Given Non-AFDC Recipient
Father's Current Family Situation			
Has other children to support	.83	.74	.83
Does not have other children to support	.84	.71	.86
Prediction at Mean of All Variables	.84	.71	.85

Note: Predictions are made at the means of all other variables. *s indicate that the difference in predicted probabilities associated with the change in the specified variable is statistically significant at the 10% (*), 5% (**), or 1% (***) level. For example, an "average" single female head earning $1,000 per year is .04 more likely to receive child support than an "average" single female head who does not work. The standard error of the difference is .023 which implies the predicted difference is significant at the 10% level.

[a]Significance levels given are relative to the never married group.

Table III.2.8

PREDICTED PROBABILITIES OF RECEIPT OF AFDC BENEFITS
(Based on Multinomial Logit Analysis of CPS Data)

	Probability of Receiving AFDC	Conditional Probabilities: Receipt of AFDC Given Receipt of Child Support	Conditional Probabilities: Receipt of AFDC Given No Receipt of Child Support
All Single Mothers			
Annual Earnings of Mother			
0	.68	.62	.70
$1,000	.47***	.41***	.50***
3,000	.32***	.29***	.34***
5,000	.20***	.18***	.21***
7,000	.12***	.11***	.12***
9,000	.07***	.07***	.07***
Race			
Black	.36	.42	.34
White or other	.22***	.17***	.24***
Age			
20	.35	.30	.36
30	.27**	.25*	.28***
40	.21***	.20*	.22***
Years of Education			
8	.34	.38	.32
12	.25***	.22***	.26***
16	.17***	.11***	.21***
Number of Children			
1 aged less than 6	.39	.34	.41
None aged less than 6	.30***	.22***	.34***
1 aged 6 to 12	.36	.28	.40
None aged 6 to 12	.31***	.25	.33***
1 aged 12 to 18	.34	.28	.36
None aged 12 to 18	.33	.24*	.37

Table III.2.8 (continued)

	Probability of Receiving AFDC	Conditional Probabilities: Receipt of AFDC Given Receipt of Child Support	Conditional Probabilities: Receipt of AFDC Given No Receipt of Child Support
Marital Status[a]			
Divorced	.21	.19**	.24
Legally separated	.22	.28	.18**
Informally separated	.23	.17**	.25
Never married	.29	.37	.29
Years Married			
1	.22	.21	.22
6	.22	.19	.23
11	.22	.18	.25
Years Since Separation or Divorce			
1	.19	.18	.20
3	.22***	.19	.23***
6	.27***	.21	.30***
Prediction at Mean of All Variables	.26	.24	.27
Single Mothers Due Child Support			
Type of child support obligation			
Court ordered	.13	.11	.19
Voluntary agreement or other	.10***	.09	.23

Table III.2.8 (concluded)

	Probability of Receiving AFDC	Conditional Probabilities: Receipt of AFDC Given Receipt of Child Support	Conditional Probabilities: Receipt of AFDC Given No Receipt of Child Support
Fathers Annual Income			
$ 5,000	.17***	.15*	.26
10,000	.13***	.11***	.25
15,000	.09***	.07***	.24
20,000	.07***	.05***	.24
25,000	.05***	.04***	.22
Greater than 25,000	.05	.05	.20
Fathers Current Family Situation			
Has other children to support	.08	.08	.13
Does not have other children to support	.12***	.10	.23*
Prediction at Mean of All Variables	.12	.10	.20

Note: Predictions are made at the means of all other variables. *s indicate that the difference in predicted probabilities associated with the change in the specified variable is statistically significant at the 10% (*), 5% (**), or 1% (***) level. For example, an "average" single female head earning $1,000 per year is .21 less likely to receive AFDC than an "average" single female head who does not work. The standard error of the difference is .039 which implies the predicted difference is significant at the 1% level.

[a]Significance levels given are relative to the never married group.

precision of the estimated differences.* Finally, we present predicted probabilities of receiving welfare and child support evaluated at the sample means of all the variables. These predicted probabilities evaluated at the sample means may be contrasted with the raw sample means in Table III.2.4. Unlike the raw sample means, the predicted probabilities at the sample means hold constant characteristics of the mother and her family. Hence, they more closely reflect the true impact of receiving child support and welfare on the various family situations depicted because comparisons across different family situations are for families with the same socioeconomic characteristics.

Receipt of Child Support

The first set of predictions (Table III.2.7) are for various probabilities of receiving child support (equations (4), (6), and (7)). We examine the impact of family characteristics on the unconditional probability of receiving child support and on two conditional probabilities of receiving child support--receipt of child support given receipt of welfare and receipt of child support given no receipt of welfare. A comparison of the conditional probabilities with the unconditional probability enables us to determine the impact of AFDC status on the probability of receiving child support for each variable considered (holding other family characteristics constant).

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*The significance levels are based on estimated standard errors of differences in two predicted values. The estimated asymptotic variance of the difference in two predicted values is given by

$$V(F) = (\delta F/\delta b)' \, V(b)(\delta F/\delta b),$$

where F is the difference in the two relevant predicted probabilities, b is the vector of estimated parameters $(b_1, b_2, b_3)'$, and V(b) is the variance-covariance matrix of the estimated parameters. Like the predicted probabilities, the variance of the predictions also depends on the point at which the probabilities are evaluated.

The first variable we examine is annual earnings of the mother. The predictions indicate that the probability of receiving child support increases with the mother's earnings, although this relationship is not a very strong one and exists only for AFDC recipients. It is not clear why higher earnings would be associated with a greater likelihood of receiving child support for AFDC recipients. On the one hand, higher earnings imply greater self-sufficiency and less need for child support. On the other hand, earnings may be correlated with an unobserved characteristic of the mother, such as maturity or responsibility, which enables the mother to more effectively deal with the absent father. Another possible explanation is that the IV-D agencies target their efforts on working AFDC mothers. From the IV-D agency's point of view, potential savings in AFDC program costs may be greater for working mothers because successful enforcement of child support obligations could lead to lower dependency in the long run. As our analysis in the next section indicates, IV-D agencies do seem to target their enforcement efforts on mothers who work. Furthermore, for mothers who do work, IV-D efforts to establish a support obligation appear to be positively correlated with earnings. Finally, earnings of the mother may be correlated with similar characteristics of the absent father that make him more likely to pay support. Our results suggest that these latter three explanations dominate, but we are unable to determine whether the effects are due to explicit actions on the part of the mother or father.

The second variable we consider is race. The results suggests that blacks are much less likely to receive child support than whites and other racial groups. This effect is almost exclusively concentrated among non-AFDC families, the difference for AFDC families being small and not statistically significant. Why non-AFDC white families are twice as likely to receive child support as non-AFDC black families is not entirely clear. The estimates upon which these predictions are based do not hold constant characteristics of the absent father so it is possible that the higher unemployment and lower earnings capacities that are prevalent among black males may be partially responsible for this predicted differential.

The next variable we consider is age of the mother. There is some evidence that the probability of receiving child support increases with the mother's age, holding constant the number of years she was married and the length of time since her marital dissolution. However, this age effect is not statistically significant for any group. Since there is no evidence that the IV-D agencies target their efforts on older women, the age effect must be due to other factors that are correlated with age but are not included in the model, such as maturity and responsibility of the absent father and his overall economic capacity to provide child support.

There is strong evidence that receipt of child support increases with years of education of the mother. However, this effect only exists for non-AFDC recipients. The predictions indicate that non-AFDC recipients with a college education are twice as likely to receive child support as non-AFDC recipients with only a grade school education. There are two possible reasons for this effect. First, to the extent that education levels of the mother and father are positively correlated, the education variable may be picking up effects of the absent father's ability to pay. Because the education effect is not present for AFDC recipients, this seems to be a plausible explanation. Second, greater education of the mother may enhance her ability to seek and obtain child support from the absent father. Educated women may be more likely to utilize the courts to legally establish support obligations and are probably more likely to use legal as well as informal methods to ensure that support obligations are met.

There is little evidence that receipt of child support varies with the number and ages of the children. The only significant effect occurs in comparing families with and without children of school age. Families with school age children (over the age of 6) are more likely to receive child support than families with no school age children (under the age of 6). This may reflect a greater need for support by school age children (child

rearing expenses are higher) and hence greater efforts by the mother to obtain such support when her children reach school age.*

Receipt of child support varies dramatically with marital status, as one would expect. Divorced women are most likely to receive child support, followed by legally separated women, informally separated women, and finally by unwed mothers. For the sample as a whole, divorced women have a 50% chance of receiving child support, which is 6 1/2 times greater than the 8% probability for unwed mothers. All marital groups have a significantly higher probability of receiving child support than unwed mothers. Lack of child support is clearly a very serious problem for unwed mothers.**

The differences in receipt of child support by marital status are greatest for non-welfare recipients. Divorced women not on AFDC are almost 8 times as likely to receive child support as unwed mothers. Two factors are probably responsible for causing such vast differences in receipt of child support by marital status. First, for those women who were married, receipt of child support is positively related to the legal status of the marital dissolution. Divorce is, in some sense, the final step in a marital dissolution and hence is the most likely to involve a legal and enforceable child support arrangement (either in the form of a court order or a voluntary agreement). Second, married women have a much higher probability of receiving child support than women who have never been married presumably because paternity is less likely to be in question and because the emotional bond between the father and his children is likely to be much stronger. A stronger emotional bond probably increases the likelihood that the father will pay child support.

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*Mothers with children under 6 years of age are not generally subject to work requirements under AFDC and other transfer programs. Hence, they may be more willing to be supported by the welfare system than seek support from the absent father, especially in light of the fact that AFDC benefits are reduced dollar-for-dollar with any child support payments made.

**In the last section, we indicated that lack of a child support award is the principle reason underlying lack of child support for unwed mothers.

Receipt of child support is positively related to the number of years the mother and father were married, but this relationship is a fairly weak one and exists only for non-AFDC recipients. To the extent that length of marriage increases the father's sense of financial responsibility to his family, this result makes sense.

For both AFDC and non-AFDC families, the probability of receiving child support declines significantly with the length of time since the marital dissolution. This result presumably reflects a lessening sense of commitment on the part of the father as time passes, due to perhaps new financial obligations acquired through remarriage or lack of contact with his children, however it may also reflect legal factors that result in termination of support after a specified period of time* or even death or total disablement of the absent father.

For the sample as a whole, the predicted probability of receiving child support for the average sample member is .27.** Surprisingly, this predicted probability is not much different for AFDC and non-AFDC families, suggesting that much of the observed difference in receipt of child support among AFDC and non-AFDC families is due to differences in the socioeconomic characteristics of the mother and her family rather than to receipt of child support. In other words, characteristics that determine welfare dependency are also characteristics that lead to a lower likelihood of receiving child

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*For example, in most divorce cases, child support terminates when the child reaches the age of 18. Since our sample contains several families with children between the ages of 18 and 20, such an effect may be partially present.

**This "prediction at the mean" is somewhat lower than the mean fraction in the sample, reflecting the nonlinearity of the logit model and errors in prediction. If we were to make a prediction for each sample member and compute the "mean prediction" (as opposed to the "prediction at the mean") we would obtain a figure much closer to the observed mean fraction in the sample.

support. Nevertheless, the results do indicate that receipt of child support lowers the likelihood of the mother receiving welfare benefits.*

The next set of predictions are for the restricted sample of mothers due child support in 1978. Three sets of predictions are made for this sample: (1) a comparison of court ordered support payments with other types of support payments (primarily voluntary agreements); (2) comparisons among varying levels of the absent father's yearly income (based on the mother's perception); and (3) a comparison of fathers with and without other children to support (also based on the mother's perception).

The predictions reveal that voluntary agreements lead to a much higher probability of receiving child support than do court orders. In fact, child support is virtually always paid (with a probability of .93) when voluntary agreements exist, compared to a probability of .75 with court orders. This result holds for both AFDC and non-AFDC families.

The finding that voluntary agreements are a more successful method of establishing child support obligations is an important one but has several qualifications. First, although many observed characteristics of the mother and her family are being held constant, certain unobserved characteristics of the mother may be generating this result. For example, voluntary agreements may be sought only in cases where the mother and father are on amicable terms.** Another important qualification relates to the results reported below for the AFDC survey sample where we find no evidence that voluntary agreements lead to a higher probability of receiving child support among AFDC families. In our analysis of the AFDC survey data, we are able

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*This finding is generally consistent with the earlier result (Table III.2.1) where we find that receipt of child support (according to the CPS supplement definition) reduces the probability of receiving welfare benefits by about 7 percentage points.

**In other words, voluntary agreements may not be sought in the more difficult cases.

to hold constant other IV-D activities (such as locating the absent father) that may be partially responsible for generating a higher probability of receiving child support.

The level of the absent father's income is an important determinant of receipt of child support for mothers actually due support. In cases where the father's income is $5,000, the probability of receiving child support is .83. If the father's income is $25,000 the probability rises to .93.

The effect of father's income on the likelihood of receiving child support appears to exist only for non-AFDC families. However, it is important to note that these findings are based on very sketchy data. Clearly, better data on absent father's income are needed to make more definitive statements about the relationship between the father's ability to pay and the receipt of child support. However, our results suggest that enhancement of father's income could significantly increase the likelihood that he will meet his child support obligations. In fact, for fathers with incomes above $25,000 per year, our results indicate that payment of child support is virtually assured.

Our results also suggest that having other children to support does not alter the father's likelihood of meeting his child support obligations. However, as in the case of absent father's income, this result is based on sketchy data.

For the sample of mothers due child support, AFDC recipients have a lower probability of receiving child support than do non-AFDC recipients, as evidenced by the predictions reported at the means of all variables. This is a different result than obtained for the sample as a whole. One reason for this is that we have more adequately explained variation in receipt of child support among all single mothers than among those due child support. Greater explanatory power is achieved because the determination of who has an award is highly predictable and is the dominant factor in determining major differences in recipiency rates among AFDC and non-AFDC families.

Among those having an award, however. major differences in recipiency rates among AFDC and non-AFDC are due to variables we have been unable to measure.

Receipt of AFDC and Its Relation to Receipt of Child Support

The second set of predictions (Table III.2.8) are for various probabilities of receiving AFDC (equations (5), (8), and (9)). Unlike the case of child support, the predictions indicate a strong relationship between the mother's annual earnings and the probability of receiving AFDC benefits. This is as one would expect because AFDC eligibility (and the level of benefits) is based on the mother's earnings. In our sample, mothers who do not work have about a two-thirds chance of being on AFDC. The probability is somewhat lower (.62) for mothers receiving child support and somewhat higher (.70) for mothers not receiving child support. As the mother's earnings rise, the probability of receiving AFDC benefits falls dramatically. For mothers with annual earnings of $9,000, the probability of receiving AFDC is only .07. Receipt of child support has no effect on the likelihood of being on AFDC for mothers with this level of earnings.

The predictions indicate that blacks have a much higher probability of being on welfare than whites (.36 versus .22). This effect of race is particularly strong for recipients of child support suggesting that when child support payments are made for black families they are not sufficient to prevent the mother from going on welfare. However, we obtain the perplexing result for blacks that the probability of receiving AFDC is higher for recipients of child support. We have no explanation for this result but it is possible that reverse causation is present; namely that that blacks on AFDC have a somewhat higher probability of receiving child

support than do blacks not on AFDC.* Furthermore, although there are difficulties in inferring causation from our findings, the results presented in Table III.3.2 of the next section indicate that IV-D agencies differentially target their efforts to enforce child support obligations on black families.

The probability of receiving AFDC benefits declines with both age and education of the mother. The education effect is particularly strong for recipients of child support. For the sample as a whole, mothers with only a grade school education are twice as likely to be on welfare as mothers with a college degree (.34 versus .17). For recipients of child support, mothers with only a grade school education are more than three times as likely to be on welfare as mothers with a college degree (.38 versus .11). Receipt of child support has its greatest impact on welfare status among the more educated, reflecting presumably higher award amounts.

Family structure also significantly affects the probability of being on welfare. The probability of receiving welfare benefits increases with the number of children and mothers with younger children are more likely to receive welfare benefits than mothers with older children. The family structure effects are similar for both recipients and non-recipients of child support.

The probability of receiving welfare does not vary significantly with marital status (unlike the likelihood of receiving child support), although unwed mothers do have a somewhat higher probability of receiving welfare than mothers who were previously married. The differences across the

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*While we have specified as general a model as possible (by allowing family characteristics to have a different impact on each of four separate family situations), we have not explicitly accounted for the possibility of reverse causation. Reverse causation does not appear to be a serious problem in our analysis and accounting for it (through the use of simultaneous equation techniques) would greatly reduce the predictive power of our model.

various marital status categories appears to be greatest for mothers receiving child support.

Receipt of welfare appears to be independent of the number of years married but increases with years since separation or divorce. The dissolution effect occurs only for mothers who do not receive child support. Apparently regular child support payments are sufficient to keep a divorced mother off welfare over time.

Evaluated at the sample mean of all variables, we find that receipt of welfare is about 11% lower for mothers receiving child support. This estimated impact is not as great as implied by differences in the raw means in Table III.2.4. Again, the predictions reinforce our earlier conclusion that characteristics of the mother that determine receipt of child support are also important determinants in the opposite direction of the receipt of welfare. Holding these characteristics constant significantly reduces the impact of child support on the likelihood of receiving welfare benefits.

For the sample of mothers due child support in 1979, earnings of the absent father is significantly related to the probability that the mother is on welfare. This effect is strongest for recipients of child support and apparently reflects the fact that the size of the child support payment varies directly with the fathers ability to pay (as measured by his income). The lower the father's income, the lower the child support payment and hence the higher the probability that the mother will be eligible for and receive welfare benefits.

The type of child support agreement has a small but statistically significant effect on the likelihood of the mother being on welfare. In cases where a voluntary agreement exists, the probability of being on welfare is slightly lower. This is consistent with our earlier finding that voluntary agreements are a somewhat more successful type of child support obligation.

The probability of being on welfare is significantly related to the father's current family situation. When the father has other children to support, the mother is less likely to receive welfare. The effect is strongest for mothers who do not receive child support. We have no convincing explanation for this result. We would have expected mothers to have a higher probability of being on welfare when the absent father has other children to support, because his ability and incentive to pay child support would be lower.

Evaluated at the sample means, receipt of child support reduces the probability of being on welfare for mothers due child support. As before, this effect is more pronounced than for the entire sample of single mothers and is probably due to the same factors mentioned earlier for receipt of child support, namely that among those due child support, major differences in welfare recipiency rates are due to unobserved variables not included in our model.

III.2.2.4 Summary and Conclusions

In this section, we have investigated the interrelationship between receipt of child support and receipt of welfare benefits for single mothers. A large number of results have been presented in an attempt to sort out the precise nature of this relationship. Although definitive results are not obtained, our findings do provide some important insights regarding the major problems facing the AFDC and child support enforcement programs.

First, it is fairly clear from our results that if child support obligations can be established and if the absent father has a job that provides stable, secure income, the mother will be virtually assured of receiving child support payments and she will have a good chance of avoiding the welfare rolls. This implies that the AFDC and IV-D agencies may find it effective both to intensify efforts toward establishing support obligations and to explore ways of enhancing the earnings potential of the absent

father. Possible methods for enhancing the earnings potential of the absent fathers include various job training or job search assistance activities, such as those currently available to AFDC mothers, or even public employment programs. Of course, such activities are very difficult to put into practice for certain groups, particularly for unwed mothers when the father's whereabouts are unknown and paternity is in dispute.

Second, our results imply that the traditional approach adopted by welfare agencies of enhancing the earnings potential of the mother (such as through WIN activities), while likely to remove her from the welfare rolls if successful, will do little to increase her chances of receiving child support. Hence, IV-D agency activities provide an important complement to welfare agency activities in generating an overall increase in the economic well-being of single parent families.

In summary, establishing a support obligation emerges as the key policy action in our analysis. Once such an obligation is established, the chances of actually receiving support are predicted to be close to 85% for the average mother in our sample and the probability of her being on welfare is only about 10%. Hence, policymakers should focus attention on developing new methods of establishing support obligations as well as on developing new methods for collecting support under existing obligations.

III.3 Determinants of Which AFDC Recipients Receive IV-D Services

We turn now to the role of IV-D services in obtaining child support from absent fathers. Prior to 1975, there were several state statutes to collect support from absent fathers whose children were on AFDC, but there was substantial variation across states in this type of legislation and reciprocity was often a problem. In 1975, Title IV-D of the Social Security Act was passed, which required states to establish a child support enforcement program to establish paternity, locate absent parents, establish support obligations, and enforce such obligations. The states are required to provide these services to all AFDC families and to non-AFDC families who request services, although a fee could be charged to the latter families. To facilitate collection across states, a Federal Parent Locator Service was established, and states were given financial incentives to cooperate with one another.

Determining which cases should receive IV-D services is an important but difficult issue. If the goal is to target resources to produce the greatest cost savings for the AFDC program, then there are two factors to consider. First is the probability of obtaining and enforcing an agreement, and the second is the cost savings that would result if such an agreement were established. It is possible that there is a trade-off between these two factors. It is probably easier to increase child support payments for relatively affluent cases, for example, cases where the father pays support irregularly and could be forced to pay regularly through enforcement procedures. These cases may result in relatively little AFDC cost saving, however. On the other hand, it may be difficult to establish child support for a young unwed mother, but if such agreement could be enforced, it may result in large, long-term savings to the AFDC program. In this section, we examine what types of AFDC families receive IV-D services, including action to establish paternity, action to locate an absent father, establishment of a child support agreement, and action to enforce such an agreement. We also

examine whether these services are successfully provided. In the subsequent section, we examine the impact of these services on the receipt of child support for AFDC families.

III.3.1 Methodology

The data that we use to examine the receipt and impact of IV-D services are taken from the 1979 AFDC Recipient Characteristics Study. As a result, we can observe the receipt of IV-D services only for those who continue to receive AFDC. This data set does not include families for which IV-D services led to the collection of sufficient child support payments that the family was no longer eligible for AFDC. This limitation is particularly important when estimating the impact of IV-D services and procedures to overcome the problem are discussed in the next section. With respect to the determinants of who receive IV-D services, it should be borne in mind that families for whom IV-D services are particularly effective are underrepresented in this analysis.

The data are taken from two sections of the Receipt Characteristic Study record schedule. For each child in the family, information is recorded about whether actions to establish paternity, to locate an absent parent, or to enforce a child support obligation were ever undertaken, and whether those actions were successful. The dependent variable in our analyses of these services is the proportion of the children in the family who received paternity establishment, parent locator, or support enforcement services and the proportion for whom the services were successful and the proportion for whom the services were unsuccessful.

Another section of the record schedule indicates whether support obligations were ever established for each of the absent parents for the family. For those with an established support order, whether that order is court ordered or some other legal agreement, such as an administrative agreement, is recorded. Unfortunately, the record schedule does not indicate whether the support agreement was established by the IV-D agency or

whether the agreement had been established before the family began receiving AFDC. There is also no indication of whether the IV-D agency attempted to establish an agreement but failed. Our dependent variables in the analysis of which families have support agreements are, therefore, the proportion of absent fathers with a child support agreement, the proportion with a court ordered agreement, and the proportion with an agreement other than court ordered.

In the following subsections, we examine the impact of demographic, location and employment characteristics, marital history, and welfare characteristics on which families receive IV-D services.* We examine first the determinants of which families receive paternity establishment and parent locator services because these actions are necessary first steps in collecting child support payments. We then examine which families have child support agreements established and which receive enforcement services to collect child support payments.

III.3.2 Determinants of the Provision of Paternity Establishment and of Parent Locator Services

Table III.3.1 presents the proportion of families receiving AFDC during the survey month in 1979 that had ever received paternity establishment services or parent location services. Paternity establishment services are frequently provided to AFDC recipients and these services appear to be quite effective in establishing paternity: 45% of the AFDC cases had received paternity action, and of those cases, nearly 70% resulted in successful establishment of paternity.

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*Between 3% and 12% of the sample had missing data on some of the case characteristics either because the client did not report the information to the agency or the agency did not record the information in the case record. In our regressions we included separate variables for whether age, the number of absent fathers, the number of years the parents were divorced, and Food Stamp receipt were missing. The coefficients of these missing data variables are not presented and had no consistent correlation with whether IV-D services were provided.

Table III.3.1

PROPORTION OF 1979 AFDC RECIPIENTS WHO HAD RECEIVED PATERNITY ESTABLISHMENT AND PARENT LOCATION SERVICES
(AFDC survey, those with an absent parent and valid receipt data, N=15,116)

	Overall Mean	Mean for Those Receiving Service
Paternity Action		
Action taken	45.4	--
Paternity established	31.5	69.4
Paternity not established	13.9	30.6
Action to Locate Absent Parent		
Action taken	59.7	--
Parent located	30.4	50.9
Parent not located	29.3	49.1

Parent locator services are also frequently provided, but the success rate is somewhat lower: nearly 60% of the cases received at least one action to locate an absent parent; in 51% of those cases the absent parent was successfully located.

Table III.3.2 presents the impacts of demographic characteristics, work history, marital history, and welfare characteristics on the receipt of paternity establishment and parent locator services and on the success of these services. The coefficients in the first column represent the impact of each characteristic on whether the action was taken. The coefficients in the second column represent the impact of each characteristic on whether a successful action was taken and the coefficients in the third column represent the impact on whether an unsuccessful action was taken. The sum of the impacts on successful and unsuccessful actions (columns 2 and 3) equals the impact on any action (column 1).*

Paternity Establishment Services--AFDC recipients who were heads of households were equally as likely to receive paternity establishment services as were recipients who were not household heads, and there were no differences in the success of establishing paternity by whether the recipient was a household head. There are also no significant differences by the mother's age or education in whether paternity establishment services were provided or in the success of such services.

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*The coefficients for successful and unsuccessful actions do not represent conditional probabilities--that is they do not represent the probability of a successful or unsuccessful action, given that an action was taken. Instead they represent unconditional probabilities, for example, the probability that a case had a successful action relative to having no action or having an unsuccessful action. Thus, if we find that a characteristic reduced the total number of actions, and that the number of successful and unsuccessful actions were also reduced in the same proportion, then we conclude that the characteristic reduced the number of actions taken but did not influence the success rate. On the other hand, if a characteristic disproportionally affected either the number of successful or unsuccessful actions, then we conclude that the characteristic influenced the success rate of the action.

Table III.3.2

DETERMINANTS OF WHICH AFDC FAMILIES RECEIVED PATERNITY ESTABLISHMENT AND PARENT LOCATOR SERVICES[a]
(AFDC Survey, those with an absent parent and valid (receipt) data, N = 15,116)

	Paternity Action			Action to Locate Father		
	Action Taken	Paternity Established	Paternity not Established	Action Taken	Father Located	Father Not Located
Demographic Characteristics						
1 = Head of household	.008 (.011)	-.001 (.010)	.009 (.008)	-.027** (.011)	-.040*** (.010)	.014 (.011)
Age (in years)	.001 (.001)	.000 (.000)	-.000 (.000)	-.001** (.001)	-.001** (.001)	-.000 (.001)
1 = Black	.028*** (.009)	.035*** (.008)	-.006 (.006)	-.005 (.009)	-.043*** (.008)	.038*** (.009)
Education (years)	-.003 (.003)	.000 (.002)	-.004 (.002)	.001 (.003)	.008*** (.002)	-.007*** (.002)
Number of children less than 6	.017** (.007)	.022*** (.007)	-.006 (.004)	.027*** (.007)	.027*** (.007)	.000 (.007)
Number of children between 6 and 12	.016*** (.005)	.024*** (.005)	-.009** (.004)	.014*** (.005)	.005 (.005)	.010* (.005)
Number of children between 12 and 18	.010 (.006)	.019*** (.005)	-.010** (.004)	.012** (.006)	.019*** (.006)	-.006 (.006)
1 = Northeast	.111*** (.013)	.001 (.012)	.101*** (.009)	.070*** (.013)	.043*** (.012)	.027** (.012)
1 = Northcentral	.044*** (.012)	.019* (.011)	.026*** (.008)	.009 (.012)	-.012 (.011)	.021* (.011)
1 = West	.104*** (.014)	.054*** (.013)	.050*** (.009)	-.027*** (.014)	-.046*** (.013)	-.032** (.013)
1 = South	-- --	-- --	--	--	--	--

Table III.3.2 (continued)

	Paternity Action			Action to Locate Father		
	Action Taken	Paternity Established	Paternity not Established	Action Taken	Father Located	Father Not Located
Employment Characteristics of Mother (in Survey Month)						
1 = Employed	.013 (.015)	.016 (.014)	-.003 (.010)	.033 (.015)	.032** (.014)	.000 (.014)
Earnings ($1,000s)	.030 (.035)	-.012 (.003)	.042* (.024)	.003 (.003)	.002 (.003)	.001 (.003)
Marital Information						
Fraction of children with divorced parents	.010 (.015)	.260*** (.001)	-.250*** (.010)	.230*** (.015)	.343*** (.013)	-.113*** (.014)
Fraction of children with legally separated parents	.171*** (.027)	.424*** (.024)	-.253*** (.018)	.179*** (.026)	.313*** (.024)	-.134*** (.025)
Fraction of children with non-legally separated parents	.056*** (.014)	.278*** (.012)	-.221*** (.009)	.128*** (.014)	.133*** (.012)	-.005 (.013)
Fraction of children with parent absent for another reason (other than unmarried)	.056* (.029)	.229*** (.026)	-.172*** (.019)	.054* (.029)	.119*** (.026)	-.065** (.027)
Fraction of children with unmarried parents	-- --	-- --	-- --	-- --	-- --	-- --
Number of absent parents	-.050 (.007)	-.046*** (.007)	-.004 (.005)	-.050*** (.007)	-.053*** (.007)	.003 (.007)
Years since father left	.000 (.002)	-.002 (.001)	.002* (.001)	-.001 (.002)	-.008*** (.002)	.007*** (.002)

Table III.3.2 (concluded)

	Paternity Action			Action to Locate Father		
	Action Taken	Paternity Established	Paternity not Established	Action Taken	Father Located	Father Not Located
Welfare information						
Years on AFDC	-.001 (.002)	-.002* (.001)	.001 (.001)	.005*** (.001)	.003*** (.001)	.002* (.001)
AFDC Benefit ($100s)	.004 (.003)	.001 (.003)	.003 (.003)	.006 (.004)	.003 (.003)	.003 (.004)
1 = Receives food stamps	-.021 (.013)	.018 (.012)	-.040*** (.009)	.008 (.013)	.007 (.012)	.001 (.012)
Food stamp benefit ($100s)	.009 (.009)	-.013** (.008)	.023*** (.006)	-.012 (.008)	-.002 (.008)	-.010 (.008)
1 = WIN registered	.016 (.017)	-.010 (.015)	.026** (.011)	-.013 (.016)	.001 (.015)	-.015 (.015)
1 = Mandatory WIN registered	-.018 (.019)	.022 (.017)	-.040 (.013)	.021 (.019)	.008 (.019)	.013 (.018)
Constant term	.426*** (.035)	.151*** (.032)	.275*** (.023)	.571*** (.035)	.232*** (.032)	.339*** (.033)
Summary Statistics						
R^2	.020	.094	.101	.056	.100	.018
Standard error of estimate	.474	.423	.315	.462	.420	.438
Mean of dependent variable	.454	.335	.139	.597	.304	.293

[a]Standard errors in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Black AFDC recipients were significantly more likely than whites to receive actions to establish paternity and were significantly more likely to have paternity successfully established. The number of children in various age categories had an impact on whether a paternity action was taken, particularly the number of children under 12 years of age. These results suggest that IV-D agencies are targeting paternity establishment services to large families who receive larger grants for longer periods and to younger children for whom it may be easier to establish paternity. The number of children had an even greater positive influence on whether paternity was successfully established, probably because it was easier to definitively establish paternity for at least one of the children in the family.

There are significant regional differences in the provision of paternity establishment services.* Southern states took significantly fewer paternity establishment actions than did states in any other region. On the other hand, the regional differences in the number of successful actions is much smaller. Only the Western states had significantly more cases with paternity successfully established than did the Southern states. Thus, the paternity establishment services appear to be more efficiently targeted in the South.

In the earlier sections we found that the mother's employment status and earnings had significant impacts on the receipt of child support. However, neither the mother's employment status nor her earnings had an influence on whether paternity establishment actions were initiated by the IV-D agency or on the success of those actions.

The marital status of the parents had a strong influence on the provision of paternity establishment services. Surprisingly, children whose

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*The coefficients in the table represent the differences in outcomes for the specified regions relative to the south. For example, families living in the west were 10.4 percentage points more likely to receive paternity establishment actions than were families living in the south.

parents were never married and those whose parents were divorced were nearly equally as likely to receive such services* while those children whose parents were separated, particularly those whose parents were legally separated, and children whose father was absent for other reasons were significantly more likely to receive paternity establishment services. The pattern in success rate, however, is considerably different. Paternity establishment actions for children of unmarried parents were significantly less likely to be successful while those actions for children of divorced or separated parents were very successful.

In the previous sections, it was found that unwed mothers were the least likely to receive child support, primarily because they did not have a child support obligation established. The fact that actions to establish paternity for children of unmarried parents--a necessary first step to establishing a child support award--are so unsuccessful points out a major barrier facing the IV-D program.

The fact that the mother had children by more than one father also makes paternity more difficult to establish. The number of absent parents significantly reduced the number of paternity establishment action that were taken, particularly the number of successful actions. The number of years that the father has been gone from the household had no effect on whether a paternity establishment action was taken but significantly increased the probability that the action was unsuccessful.

The number of years that the family received AFDC did not influence whether paternity establishment actions were taken but did reduce the success rate of such actions. Longer term recipients have a longer period in order to receive services but it may be difficult to establish paternity unless the action is taken early. This result is consistent with the fact

*Discussions with child support enforcement staff in California shed no light on why such a high proportion of children of married parents receive paternity establishment services. It is possible, however, that in some states paternity establishment services may include pro forma procedures, such as notifying the former husband that he is the presumed father.

that the number of years since the father left reduced the success rate of paternity establishment actions.

The amount of AFDC benefits the family received had no effect on paternity establishment actions. This is surprising because we had expected that IV-D agencies would target their efforts to cases where successful collection of child support would result in the largest welfare savings. However, the regression equation controls for many factors that influence the grant level (e.g., the number of children), and the independent influence of the grant level may be small.

Families that were also receiving foodstamps had significantly fewer unsuccessful paternity establishment actions. Whether the family receives Food Stamps may be a proxy for whether the mother is living with other individuals with sufficiently high income that the household does not qualify for foodstamps. It is possible that the mother has less incentive to cooperate with paternity establishment actions if she has alternative sources for support. On the other hand, the benefit level of Food Stamps received is negatively related to successful paternity establishments.

Cases in which the mother is a WIN registrant had significantly lower success rate for paternity establishment actions. It is possible that women for whom the paternity of their children cannot be established have no hope of receiving child support and are more likely to register for WIN on their own or to be required to register for WIN in order to find alternative means of establishing independence.

Parent Locator Services--With respect to parent location services, recipients who were household heads and older recipients were both significantly less likely to receive location services and the success rates of locator services were lower for both groups. Blacks were about equally likely as whites to receive parent locator services but the probability of successfully locating the absent father was significantly lower for blacks than for whites. The education of the mother did not influence whether a

locator service is provided but significantly increased the probability of successfully locating the father.

The number of children, particularly the number of children under age 6, significantly increased the probability that parent locator services were provided. Furthermore, the additional services that were provided to large families were generally associated with successful location of the father.

The regional pattern in the provision of parent locator services indicates that the Northeastern states were the most likely to provide parent locator services and had greatest success in finding absent fathers. In contrast, Western states were the least likely to provide locator services and the success in finding absent fathers was the lowest in the Western states as well.

Whether the mother was employed was not significantly associated with receipt of locator services but was positively associated with whether the father was successfully located. It is likely that the mother's employment status is positively correlated with the father's employment status and that employed fathers are easier to locate.* The amount of the mother's earnings had no influence on the receipt of, or success of, parent locator services.

There is considerable variation by marital status in whether parent locator services were provided. Children of unmarried parents were significantly less likely to receive locator services while those of divorced parents were the most likely to receive locator services. Further, when such actions were undertaken, the parent was significantly more likely to be found for children of divorced parents than for children of unmarried parents.

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*Alternatively, it is possible that the father maintained closer contact when the mother is employed, perhaps even receiving some support from her.

The number of absent parents reduced the probability that parent locator services were provided and the probability that the locator services were successful. The number of years the father was absent did not significantly influence whether locator services were provided but did significantly reduce the probability that the father was successfully found. This result again highlights the importance of prompt action on the part of IV-D agencies.

The provision of parent locator services was not strongly influenced by welfare characteristics of the family. The number of years the family has received AFDC significantly increased the probability that parent locator services were provided. However, none of the other welfare characteristics influenced whether a case received parent locator services.

III.3.3 Determinants of the Establishment of Support Obligation and Actions to Enforce Support Obligations

The second set of services provided by IV-D agencies includes the establishment of child support obligations and various actions to enforce child support obligations.* Table III.3.3 presents the proportion of AFDC cases that had a child support agreement and that received actions to enforce an agreement. Nearly 30% of the cases had a child support obligation. Of these obligations, 90% were court ordered and only 10% were other types of obligations such as voluntary agreements. Nearly 40% had received at least one action to enforce a child support obligation. It should be noted that these support enforcement efforts have the lowest success rate of any IV-D activity: 42% of these enforcement actions result in successful enforcement.

Table III.3.4 presents the impact of demographic and employment characteristics, marital history and welfare information on the

*As noted above, information is not available on whether the IV-D agency established the child support agreement.

Table III.3.3

PROPORTION OF 1979 AFDC CASES FOR WHICH CHILD SUPPORT OBLIGATIONS WERE ESTABLISHED AND ACTIONS TO ENFORCE OBLIGATIONS WERE TAKEN (AFDC survey, those with an absent parent and valid (receipt) data, N=15,116)

	Overall Mean	Means for Those Receiving Service
Support Obligation		
Support obligation established	29.9	--
Court ordered obligation	27.0	90.3
Other legal obligation	2.9	9.7
Action to Enforce Obligation		
Action taken	39.7	--
Obligation enforced	16.6	41.8
Obligation not enforced	23.1	58.2

Table III.3.4

DETERMINANTS OF WHICH AFDC FAMILIES HAVE CHILD SUPPORT AGREEMENTS ESTABLISHED AND ACTIONS TO ENFORCE CHILD SUPPORT AGREEMENTS[a]

(AFDC Survey, those with an absent parent and valid receipt data, N = 15,116)

	Establish Support Obligation			Action to Enforce Obligation		
Demographic Characteristics	Any Obligation	Court Order	Other Legal Obligation	Action Taken	Obligation Enforced	Obligation not Enforced
1 = Head of household	-.006 (.008)	-.004 (.008)	-.003 (.004)	.014 (.009)	.001 (.007)	.013 (.010)
Age (in years)	.000 (.000)	-.000 (.000)	.001*** (.000)	.000 (.001)	.001*** (.000)	-.001 (.001)
1 = Black	-.021*** (.007)	-.020*** (.007)	-.001 (.003)	.019** (.008)	.011** (.006)	.008 (.008)
Education (years)	.009*** (.002)	.007*** (.002)	.003*** (.001)	-.002 (.002)	.002 (.002)	-.004* (.002)
Number of children less than 6	-.001 (.005)	-.006 (.005)	.005** (.002)	.007 (.006)	-.009* (.004)	.016** (.006)
Number of children between 6 and 12	.017*** (.004)	.018*** (.004)	-.001 (.002)	-.002 (.004)	-.005* (.003)	.003 (.005)
Number of children between 12 and 18	.002 (.005)	.005 (.005)	-.004* (.002)	.005 (.005)	-.003 (.004)	.008 (.005)
1 = Northeast	-.022** (.010)	-.011 (.009)	-.011** (.004)	.015 (.011)	.019** (.008)	-.004 (.011)
1 = Northcentral	.014 (.009)	.028*** (.009)	-.014*** (.004)	.065*** (.010)	.018* (.007)	.046*** (.010)
1 = West	-.046*** (.011)	-.035*** (.010)	-.011** (.005)	.040*** (.012)	.014* (.008)	.026** (.012)
1 = South	-- --	-- --	-- --	-- --	-- --	-- --

Table III.3.4 (continued)

	Establish Support Obligation			Action to Enforce Obligation		
	Any Obligation	Court Order	Other Legal Obligation	Action Taken	Obligation Enforced	Obligation not Enforced
Employment Characteristics (In Survey Month)						
1 = Employed	.026** (.011)	.026** (.011)	-.000 (.005)	.024* (.024)	.017* (.009)	.007 (.013)
Earnings ($100s)	.006** (.003)	.007*** (.003)	-.001 (.001)	-.001 (.003)	-.004** (.002)	.003 (.003)
Marital Information						
Fraction of children with divorced parents	.513*** (.011)	.512*** (.022)	.000 (.005)	.012 (.014)	-.015 (.010)	.027* (.014)
Fraction of children with legally separated parents	.369*** (.020)	.352*** (.019)	.017* (.009)	.071*** (.023)	.044*** (.016)	.027 (.023)
Fraction of children with non-legally separated parents	.085*** (.010)	.062*** (.010)	.023*** (.005)	.036*** (.012)	.002 (.008)	.034*** (.012)
Fraction of children with parent absent for another reason (other than unmarried)	.096*** (.022)	.048** (.021)	.048*** (.010)	.065*** (.024)	-.006 (.017)	.071*** (.025)
Fraction of children with unmarried parents	-- --	-- --	-- --	-- --	-- --	-- --
Number of absent parents	-.029*** (.006)	-.025*** (.005)	-.004* (.003)	-.016** (.006)	.002 (.004)	-.017*** (.006)
Years since father left	.000 (.001)	.001 (.001)	-.000 (.000)	-.000 (.001)	-.001 (.001)	.001 (.002)
Fraction of children with father in same county	.264*** (.007)	.226*** (.007)	.038*** (.003)	.062*** (.009)	.115*** (.006)	-.054*** (.009)
Fraction of children with father in different county, same state	.207*** (.011)	.180*** (.011)	.027*** (.005)	.056*** (.012)	.110*** (.009)	-.054*** (.013)

Table III.3.4 (continued)

	Establish Support Obligation			Action to Enforce Obligation		
	Any Obligation	Court Order	Other Legal Obligation	Action Taken	Obligation Enforced	Obligation not Enforced
Fraction of children with father in different state	.104*** (.010)	.096*** (.009)	.008* (.004)	-.002 (.011)	.017** (.008)	-.019* (.011)
Fraction of children with father in a foreign country	-.016 (.031)	-.030 (.030)	.014 (.014)	-.009 (.035)	.033 (.025)	-.043 (.036)
Fraction of children with father's whereabouts unknown	-- --	-- --	-- --	-- --	-- --	-- --
Welfare Information						
Years on AFDC	.006*** (.001)	.005*** (.001)	.001** (.000)	.001 (.001)	-.000 (.001)	.001 (.001)
AFDC benefit ($100s/month)	.011*** (.003)	.014*** (.003)	.002* (.001)	.008** (.003)	.004* (.002)	.003 (.003)
1 = Receives food stamps	.017* (.010)	.017* (.010)	.000 (.004)	-.018* (.011)	-.005 (.008)	-.013 (.011)
Food stamp benefit ($100s/month)	.010 (.006)	.015** (.006)	.005* (.003)	.005 (.007)	-.001 (.005)	.006 (.007)
1 = WIN registered	.020 (.012)	.020 (.012)	.000 (.006)	-.017 (.014)	.002 (.010)	-.019 (.014)
1 = Mandatory WIN registered	-.007 (.014)	-.017 (.014)	.009 (.006)	.021 (.016)	.006 (.011)	.015 (.016)
Child Support Information						
Fraction of children with court ordered support	-- --	-- --	-- --	.575*** (.009)	.478*** (.007)	.098*** (.010)
Fraction of children with other legal support obligation	-- --	-- --	-- --	.592** (.020)	-.401** (.014)	.191*** (.021)
Fraction of children with no legal obligation	-- --	-- --	-- --	-- --	-- --	-- --
Constant term	-.073*** (.027)	-.039 (.026)	-.034*** (.012)	.162*** (.030)	-.083*** (.021)	.244*** (.031)

Table III.3.4 (concluded)

	Establish Support Obligation			Action to Enforce Obligation		
	Any Obligation	Court Order	Other Legal Obligation	Action Taken	Obligation Enforced	Obligation not Enforced
Summary Statistics						
R^2	.357	.364	.021	.323	.400	.023
Standard error of estimate	.351	.339	.159	.390	.276	.406
Mean of dependent variable	.299	.270	.029	.397	.166	.230

[a]Standard errors in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

establishment of child support obligations and on actions to enforce these agreements.

Child Support Agreements--Whether the mother was a head of household had no bearing on whether a child support obligation was established. The mother's age also had no influence on whether an obligation was established but was positively associated with the establishment agreements other than court ordered. Blacks were less likely to have a child support obligation, established as were women with lower educational attainment.

The number of children in various age categories had differing impacts on the establishment of child support obligation. Generally the number of children less than 6 years of age and the number of children 12 years of age and above had no impact on whether an obligation was established but the age of the children was negatively associated with the use of agreements other than court orders. The number of children in the middle ages of 6 to 11 was positively associated with establishment of support obligations, particularly court ordered obligations.

There was considerable variation by region in whether child support obligations were established. Families living in Western states were 4.6 percentage points less likely to have obligations established than were families living in Southern states and were 3.5 percentage points less likely to use agreements other than court orders.

Whether the mother was employed and the size of her earnings were both positively associated with the establishment of child support obligations, particularly court ordered obligations. It is likely that these employment characteristics of the mother are correlated with employment characteristics of the father and that it is easier to establish support obligations for employed fathers. Because the father's employment status is not available in the Recipient Characteristics Study, however, we cannot definitely test this hypothesis.

The marital status of the parents had a considerable impact on whether a child support obligation is established. Children whose parents were never married were significantly less likely to have an obligation established while children whose parents were divorced were the most likely to have an obligation established. The use of legal obligations other than court orders were concentrated among children whose parents were separated, both legally and informally, or whose father was absent for other reasons.

The number of absent parents significantly reduced the probability of establishing a child support obligation. The number of years since the father left had no impact on the establishment of an obligation or on whether the obligation was court ordered.

The location of the absent father had considerable impact on the establishment of child support obligations. Children whose fathers' location was unknown were, quite expectedly, less likely to have a child support obligation established. Among children whose father's location was known, a similar proportion of children whose fathers lived in the same county and of children whose fathers lived in the same state but different counties had a child support obligation established. The fact that the father lived in a different county within the state does not appear to pose a significant burden to the establishment of a child support agreement. Compared to those whose fathers lived in the same state, children whose fathers lived in another state were less likely to have an obligation established, particularly a support obligation that was not court ordered.

The number of years the family had received welfare was positively associated with whether a child support obligation was established, as was the size of the AFDC benefit. Further, whether a family was also receiving Food Stamps and the size of those benefits were positively associated with whether a support agreement was established. Thus there is evidence that services to establish agreements are targeted to cases that are receiving the most public assistance and thus would result in the greatest savings in public expenditures if the support obligation is successfully established and enforced.

Support Enforcement Actions--Actions to enforce support obligations were no more likely to be undertaken for heads of households than other individuals. The mother's age had no bearing on whether she received enforcement services, but enforcement actions were significantly more successful for older women than younger women. Blacks were significantly more likely to receive enforcement services and significantly more likely to have the child support obligation successfully enforced than were whites. Generally, the mother's education had little impact on the receipt of enforcement services, although less educated women were more likely to have an unsuccessful attempt to enforce the fathers child support obligation.

The number of children in various age categories had little impact on whether enforcement actions were taken, but enforcement actions were less likely to be successful for families with more children, particularly more children under 6 years of age. Because support awards are likely to be larger for larger families, this result suggests that fathers may try harder to avoid support obligations when they have more to lose.*

The regional pattern indicates that the Northcentral and Western states were significantly more likely to initiate enforcement actions than were the Southern states. Although some of these additional actions were successful, the Northcentral and Western states had a disproportionate number of unsuccessful actions compared to the Southern states. In contrast, states in the Northeastern region were equally as likely as Southern states to initiate enforcement activities but were significantly more likely to have those actions result in successful enforcement of child support obligations.

Whether the mother was employed was positively associated with the receipt of enforcement services and with the success of those services. As mentioned above, the mothers' employment status is likely to be a proxy for whether the father is employed. On the other hand, there is a surprising

*Although there is a correlation between large families and the number of absent fathers, the latter variable is controlled for in estimating the above relationship.

negative association between the size of the mothers' earnings and the success of enforcement actions. It is possible that the fathers are less likely to meet their child support obligations if the mother has more earnings; alternatively it is possible that the IV-D agency is less vigorous in their enforcement activities for women with relatively high earnings because the size of her AFDC grant, and thus the potential savings to the government, is relatively low.

Marital history characteristics also influenced whether actions were taken to enforce child support obligations. Controlling for whether an obligation has been established, children whose parents were married but not divorced were more likely to receive enforcement services than were children whose parents were divorced or children whose parents were never married. These actions were more likely to be successful for children whose parents were legally separated and less likely to be successful for children whose parents were informally separated or whose fathers were absent for other reasons.

Controlling for whether an obligation was established, children whose parents were living in the same county or same state were the most likely to receive enforcement actions. The success of that action did not depend on whether the father lived in the same county or in a different county within the same state.

Welfare characteristics have a small impact on whether an action to enforce the agreement was taken, controlling for the fact that an obligation has been established. The number of years on AFDC has no influence on whether enforcement actions are taken. The size of the AFDC benefit is positively associated with whether an enforcement action is taken, suggesting that enforcement actions are targeted to cases where welfare savings are largest.

Children with established child support obligations were far more likely to receive enforcement actions, as expected. The more interesting comparison is between children with court ordered obligations and those with

other types of legal obligations. The type of obligation had very little impact on whether an enforcement action was taken. However, the enforcement action was more likely to be successful for children with court ordered agreements. This provides some evidence that agreements other than court ordered are less successful in obtaining child support for AFDC recipients. This result is in contrast to the results in Section III.2 that indicated that court ordered agreements were less successful. Further evidence on this issue is presented in the next section.

III.3.4 Summary

In this section, we have examined the impact of demographic and employment characteristics, marital history, and welfare characteristics on whether IV-D services are provided. With respect to demographic characteristics, we find that large families are more likely to receive paternity establishment services, parent locator services and, for those with children between 6 and 12 years old, have a support agreement established. The success rates of paternity establishment and parent locator services are greater for larger families, but the success rate for enforcement actions is significantly lower. These results suggest that IV-D agencies are targeting their activities to larger families that receive larger welfare grants, but that fathers may be trying harder to avoid the larger support obligations.

The number of years that the father has been absent was associated with significantly more unsuccessful paternity establishment and parent locator actions. These results highlight the importance of the IV-D agencies taking prompt action in establishing paternity and locating the father.

Black families are more likely to have paternity-establishment actions taken and those actions are more likely to be successful than for whites. On the other hand, parent locator actions are significantly less successful, and black families are less likely to have a support obligation

established. Nonetheless, blacks are more likely to receive successful enforcement actions than are whites.

Mothers who are employed are more likely to have the father successfully located, an obligation established, and an obligation successfully enforced than are unemployed mothers. It is possible that the employment status of the mother is correlated with whether the father is employed and that IV-D activities aimed at employed fathers are more successful.

Welfare characteristic had only a modest independent impact on whether IV-D activities were provided. The size of the AFDC grant had no influence on whether paternity establishment and parent locator services were provided. However, mothers receiving larger AFDC benefits were more likely to have child support obligations established, and were more likely to receive successful actions to enforce those agreements.

The marital status of the parents was by far the strongest determinant of whether a case received IV-D services and the success of those services. As a summary, Table III-3.5 presents the predicted probability that a case received IV-D services and the predicted proportion of actions that were successful by the parents' marital status. Although marital status had relatively little impact on whether paternity establishment actions were taken, virtually all such actions for children of divorced parents were successful, while only 42% of paternity establishment actions for children of unmarried parents were successful. Marital status did significantly influence whether parent locator services were provided: children of unmarried parents were not only less likely to receive parent locator services, but only 36% of actions that were taken resulted in successful location of the father, compared to 71% of the parent locator actions for children of divorced parents. Further, only 28% of children of unmarried parents have an IV-D enforcement action compared to 57% of children of divorced parents, and the success rate of enforcement actions was lower as well for children of unmarried parents.

Table III.3.5

PREDICTED PROBABILITY OF RECEIVING AND SUCCESS RATE FOR VARIOUS IV-D ACTIONS BY PARENTS' MARITAL STATUS

	Marital Status of Parents				
	Divorced (.24)	Legally Separated (.03)	Non-legally Separated (.20)	Other (.02)	Unmarried (.51)
Paternity Establishment Action					
Paternity establishment action taken	.44	.61	.49	.49	.43
Proportion of paternity establishment actions that are successful	.99	.99	.93	.83	.42
Parent Locator Action					
Parent locator action taken	.74	.69	.64	.65	.51
Proportion of parent locator actions that are successful	.71	.72	.49	.47	.36
Child Support Obligations					
Child support obligations established	.66	.52	.24	.25	.15
Proportion of obligations that are court ordered	.96	.90	.79	.68	.80
Enforcement Actions[a]					
Enforcement actions taken	.57	.57	.37	.41	.28
Proportion of enforcement actions that are successful	.55	.51	.42	.40	.40

[a]These predicted levels of enforcement actions are based both on the direct impact of marital status on enforcement actions and on the indirect effect of marital status on whether an obligation exists.

The results presented in Section III.1 indicated that unwed mothers face severe difficulty in obtaining child support payments from absent fathers. The results of this section highlight the problems the IV-D agencies face in attempting to remedy that situation. It is more difficult to establish paternity, locate the father, and enforce an agreement for children of unmarried parents. Because over 50% of the children who received AFDC in March 1979 had unmarried parents, these facts imply that there are major barriers to the effectiveness of the IV-D actions. Nonetheless, the success rate for IV-D activities is quite high for children of divorced parents, another 24% of the caseload. In the next section, we estimate the overall impact of IV-D activities on child support receipt.

III.4 Impact of IV-D Activities on Child Support Receipt

In this section we examine the impact of child support enforcement activities on various child support outcomes. This investigation presents important methodological problems for two reasons. First, we lack information for families who previously had received IV-D services but who are no longer receiving AFDC. As a result, the most successful cases--cases for which IV-D services resulted in the mother getting off welfare--are not included in the sample of AFDC recipients. This analysis, therefore, examines the impact on IV-D services on families that continue to receive AFDC.

The second methodological problem arises because the provision of IV-D services is not random but is likely to be targeted to families in the greatest need or those for whom the agency feels the ability to collect payments is greatest. To the extent that the agencies target IV-D activities on the basis of objective characteristics for which data are available (e.g., family size or marital status), we can control for those characteristics in the analysis. To the extent that agencies target IV-D activities on the basis of unmeasured characteristics, however, there will be unmeasured differences between families who receive IV-D services and those who do not. The analysis may then attribute differences in child support receipt to IV-D activities that are in fact due to preexisting differences in unmeasured characteristics between the two groups that the agencies use to decide which cases get services.

Initially we had planned to correct for the non-random targeting of some of the IV-D services by using the CPS sample to obtain predicted probabilities of having need for parent locator services and for having court-ordered agreements. These predicted probabilities were to be used to control for the need for services in the analysis of the impact of IV-D services. Unfortunately, we were unable to adopt this approach because of

incomparabilities between the CPS and the AFDC data sets and the lack of ability to predict the required variables with sufficient accuracy.

As alternatives, we have used two other procedures to overcome the methodological problems. First, in estimating the impact of IV-D services on various outcomes using the AFDC sample, we have included two variables whether the action was successful and whether the action was unsuccessful. It is reasonable to assume that unsuccessful actions have no impact on child support receipt. Thus, any difference between the child support receipt of those who received no action and those who received unsuccessful actions are likely to be due to unmeasured differences between these two groups. The estimated difference in child support outcomes for those with unsuccessful actions and those with no actions can provide evidence about whether IV-D activities are targeted to easier or harder cases and, therefore, about the probable direction of the bias in the estimated impact of successful IV-D activities.

The second procedure takes an aggregate approach. It examines the impact of administrative and legal child support enforcement procedures that vary across states (e.g., wage attachment or criminal proceedings) on the amount of child support collected. The independent variables in this analysis are whether the state allows specific procedures, not whether a particular case received those services. Because we are comparing the aggregate experiences of states that use a specific procedure to the aggregate experience of states that do not, this analysis is not affected by a bias from nonrandom targeting of procedures to particular cases within a state. Further, we can examine the impact of state procedures both on the AFDC sample and on the CPS sample. Thus, the impact of IV-D procedures on families not currently receiving AFDC can be estimated using the CPS sample.

III.4.1 Impact of IV-D Actions

We first examine the impact of the four main IV-D activities--paternity establishment, parent locator services, establishment of child support

obligation, and actions to enforce obligations--on child support receipt and on the amount of support received. The activities of establishing paternity and locating the father are prior steps to establishing and enforcing an agreement. We look first, therefore, at the impact of paternity establishment and parent locator services on whether an award is established. The results are presented in Table III.4.1.*

After controlling for the provision of parent locator services, 40% of the cases for which paternity was successfully established had a child support award established. Only 18% of the cases that received unsuccessful paternity establishment services had a child support award established so there is no evidence that the actions are targeted toward the more promising cases, although that possibility is not ruled out by the data. Averaging over the successful and unsuccessful actions, 33% of the cases that received paternity establishment services had a child support obligation established, compared to 27% of the cases that had no paternity action taken.

Actions to locate the absent father also were associated with a greater probability of having a child support agreement established. In cases where the father was successfully located, 50% had a child support award established, compared to 19% of cases where no parent locator services were provided. Because 23% of the cases with an unsuccessful attempt to locate the father had a child support award established, however, there is evidence that parent locator services are targeted toward easier cases. In some cases, the fact that there was a child support award may have led to parent locating activity rather than the other way around. Nonetheless, the successful location of the father is associated with a substantial increase in the probability of having a child support award, although the 31 percentage point increase is probably an overestimate of the impact on families currently receiving AFDC.

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*The coefficients from which the predicted probability of having an obligation established are derived and presented in Appendix Table A.5.

Table III.4.1

PREDICTED PROBABILITY OF HAVING CHILD SUPPORT OBLIGATION ESTABLISHED BY WHETHER PATERNITY ESTABLISHMENT AND PARENT LOCATOR SERVICES ARE PROVIDED

(AFDC Survey, those with an absent parent and valid award data, n = 14,367)

	Probability of Having Child Support Obligations Established
Paternity Establishment Services	
Paternity Action Taken (.44)[a]	.33
Successful Action to Establish Paternity (.30)	.40
Unsuccessful Action to Establish Paternity (.14)	.18
No Paternity Action Taken (.56)	.27
Parent Locator Services	
Parent Location Action Taken (.60)	.37
Father Successfully Located (.30)	.50
Father Not Located (.30)	.23
No Parent Location Action Taken (.40)	.19

[a] Means in parenthesis

Table III.4.2 presents the predicted probability of receiving child support by whether the families received paternity establishment and parent locator activities.* The first column contains the estimated impact of these two services when both paternity establishment and parent locator services are controlled for. The second column contains the impact of these two services on child support receipt when all IV-D services are controlled for. By examining how the impacts change as other activities are included in the regression, we can determine if an activity has an independent effect on child support receipt or if it affects child support receipt indirectly, by increasing the probability that other actions will also be undertaken.

The results in the first column indicate that 14% of the families who had a paternity establishment action received child support compared to 10% of families who received no paternity establishment actions. Of families who had a successful establishment of paternity, 16% received child support. However, when we also control for whether a child support agreement was established or enforced (column 2), we find that the establishment of paternity had no independent impact on child support receipt; its effects on child support receipt are entirely due to the increased probability that other actions can occur once paternity is established.

Controlling only for whether paternity establishment actions have also been taken, 15% of families that had parent locator services received child support, compared to 7% of families that had no parent locator services. Successful attempts to locate the father are associated with an 18 percentage point increase in the probability of receiving child support payments compared to cases for which no parent locator activities were provided. Cases for which there was an unsuccessful location attempt are significantly less likely to receive child support so there is no evidence

*The coefficients from which the predicted level of child support receipt and amount of support are derived are presented in Appendix Table A.6.

Table III.4.2

ESTIMATED IMPACTS OF PATERNITY AND LOCATOR SERVICES ON THE PROBABILITY OF RECEIVING CHILD SUPPORT

	Probability of Receiving Child Support (.12)	
	Controlling for Paternity Establishment and Parent Locator Services Received	Controlling for all IV-D Services Received
Paternity Establishment Actions		
Paternity action taken (.45)[a]	.14	.12
Paternity successfully established (.31)	.16	.12
Paternity not successfully established (.14)	.09	.12
No paternity action taken (.55)	.10	.12
Father Locator Actions		
Father locator action taken (.59)	.15	.12
Father successfully located (.30)	.25	.14
Father not successfully located (.29)	.04	.10
No father locator action taken (.41)	.07	.12

[a]Means in parentheses.

that the location activities are targeted to the easier cases, although that possibility cannot be ruled out.

Much of the impact of parent locator actions is accounted for by the relationship between actions to locate the father and whether child support agreements are established and enforced. However, even after controlling for other IV-D activities, successful location of the father, in and of itself, is associated with a significant increase in the receipt of child support: 14% of families for whom the father is successfully located receive child support compared to 12% of those who received no parent locator services.

The impact of child support agreements and actions to enforce those agreements are presented in Table III.4.3. As expected, whether a child support agreement is established has a large and significant impact on whether child support is received: only 2% of families without an agreement received child support. When an agreement is established but no actions are taken to enforce the agreement, the probability of receiving child support is approximately 20%. Without enforcement actions, the type of agreement--that is, whether the agreement is court ordered or another legal agreement--has little impact on whether child support is received.

When actions are taken to enforce an agreement, there is a large and significant impact on child support receipt: 40% of the families that had an action to enforce court ordered agreements received child support and 34% of families that had an action to enforce on another type of agreement received child support. Although IV-D agencies may have targetted enforcement actions to easier cases, it is not likely that they would have instigated actions for cases that regularly received child support. These results suggest, therefore, that enforcement actions are very successful in increasing the receipt of child support.

Actions taken to enforce court ordered agreements tend to be more effective in obtaining child support than those taken to enforce other types of agreements. Again, this is in contrast with the results reported in the

Table III.4.3

ESTIMATED IMPACT OF SUPPORT AGREEMENTS AND ACTIONS TO ENFORCE AGREEMENTS ON THE PROBABILITY OF RECEIVING CHILD SUPPORT

Agreement and Enforcement Status	Probability of Receiving Child Support
No child support award (.70)	.02
Award but no enforcement action taken	.18
Court ordered award (.06)	.18
Other award (.01)	.21
Award and enforcement action taken	.40
Court ordered award (.21)	.40
Other award (.02)	.34

earlier sections using the CPS data. It is not clear why this discrepancy exists between these two data sets. The CPS interview asked mothers whether their child support obligation was a voluntary, written agreement, a court-ordered agreement, or another type of agreement. Among the 278 AFDC recipients in the CPS sample who reported that they had a child support agreement, 73% reported that they had a court ordered agreement. The Recipient Characteristic Study recorded information about the nature of the child support obligation from the AFDC case record. Among the 4,520 AFDC cases that had a child support obligation, 90% were court ordered. It is possible that the women in the CPS sample were less aware that their support obligations were court ordered and not voluntary if the fathers were paying child support. This possibility would lead both to an underreporting of the number of court-ordered obligations and an overestimate of the probability of receiving child support from voluntary obligations. There is no way to test this hypothesis, however. Unfortunately, the results about the relative effectiveness of court ordered and other types of child support obligations are not consistent.

III.4.2 Impact of State Administrative, Legal and Environmental Characteristics

The second approach to determining the impact of IV-D services examines the impact of state differences in the use of various child support enforcement procedures. There is considerable variation across states in the administrative and legal procedures used to establish child support obligations and to enforce obligations. In this subsection, we examine the impact on child support receipt of residing in a state that uses a specific procedure, for both the AFDC sample and the CPS sample members. For the AFDC sample, we also examine the impact of statewide procedures on whether an enforcement action is taken and on the success of that action.

An advantage of this approach is that we can examine the impact of these procedures on both non-AFDC and AFDC families. Further, we can avoid the methodological problems that arise from the fact that IV-D services may be provided to either easier or more difficult cases because we are

measuring whether a procedure was available for use, not whether it was actually provided to a specific case. On the other hand, there are some important limitations to this aggregate approach. There is considerable correlation in the use of various procedures, so that it is difficult to distinguish the independent effects of each procedure. Further, states that have the greatest problems in collecting child support payments through ordinary procedures may have adopted new procedures to aid in collection. Thus, it is likely that there is reverse causation in this analysis as well. These limitations should be borne in mind in interpreting the results. This analysis should be considered suggestive rather than definitive.

Impact on Child Support Receipt--Table III.4.4 presents the impact on child support receipt of state administrative, legal and environmental characteristics*. The two characteristics of IV-D services that apply to non-AFDC cases--whether a fee is charged for IV-D services and whether IV-D costs are recovered when collection is successful--have no significant impact on child support receipt in the CPS sample. Thus, there is no evidence that these procedures reduce the effectiveness of IV-D services to non-AFDC families.

Whether administrative procedures are used to establish child support obligations had no impact on child support receipt for the CPS sample but is associated with a significantly lower probability of receipt for families receiving AFDC. This is consistent with our findings in the previous section that court ordered agreements are relatively more effective for AFDC cases.

Whether the state allows criminal proceedings for non-support had no influence on child support receipt in the CPS sample but, surprisingly, was

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*We wish to thank Gaile Maller and her staff at the Office of Child Support Enforcement for providing us with these statewide characteristics.

Table III.4.4

ESTIMATED IMPACT OF STATE ADMINISTRATIVE, LEGAL, AND ENVIRONMENTAL CHARACTERISTICS ON CHILD SUPPORT RECEIPT--CPS AND AFDC SAMPLES

	CPS Sample		AFDC Sample
	Whether Received Child Support		Whether Received Child Support
	Income Definition	Supplement Definition	
Application fee for non-AFDC cases	-.006 (.023)	.012 (.022)	-- --
Recovery of costs from non-AFDC cases	-.026 (.019)	-.020 (.018)	-- --
Administrative procedures used to establish agreements	-.009 (.026)	.003 (.024)	-.02** (.009)
Criminal procedure used for nonsupport	-.008 (.027)	-.004 (.025)	-.032** (.011)
Statute of limitations on paternity establishment	-.044* (.023)	-.031 (.021)	.008 (.007)
Enforcement procedures			
State tax intercept	.095** (.040)	.021 (.038)	.070*** (.017)
Liens	-.004 (.022)	-.005 (.021)	-.005 (.007)
Wage assignment	-.046* (.028)	-.040 (.027)	-.013 (.012)
Automated case monitoring	-.011 (.029)	.033 (.027)	.012 (.010)

Table III.4.4 (concluded)

	CPS Sample		AFDC Sample
	Whether Received Child Support		Whether Received Child Support
	Income Definition	Supplement Definition	
Time collections continue after family becomes ineligible for AFDC	.012 (.008)	.010 (.008)	-.013*** (.003)
State administered welfare systems	-.034 (.026)	-.031 (.025)	-.067*** (.009)
Number of child support cases/ number of full-time equivalent staff	-.0001 (.0006)	.001** (.0006)	.002*** (.0002)
State unemployment rate	-.014** (.007)	-.004 (.006)	-.008*** (.002)

associated with lower child support receipt among AFDC recipients. It is possible that this is due to reverse causation. The fact that child support receipt is low may have caused some states to adopt criminal procedures for non-support.

Families in the CPS sample that were living in states that have statutes of limitation on establishing paternity were significantly less likely to receive child support. This relationship is not observed in the AFDC sample, perhaps because IV-D agencies were more aware of this statute than non-AFDC women and took prompt action to establish paternity.

The impact of three enforcement procedures are examined: whether the state income tax refund can be intercepted if the father owes child support, whether liens can be used, and whether wage assignments, which require employers to withhold wages on a continuing basis, are used. The state tax refund intercept had a positive impact on child support receipt for both AFDC recipients and the CPS sample. Recently a tax refund intercept for federal taxes has been enacted. Our results suggest that this federal procedure is likely to be effective in increasing child support recipiency.

The ability to use liens had no significant impact for either sample. Whether wage assignments were used had an unexpectedly negative association with child support receipt for the CPS sample. Again, it is possible that this relationship is due to reverse causation. Low child support receipt may have caused states to adopt wage assignment procedures rather than the other way around.

Automated procedures for monitoring had no significant impact on whether child support was received in either sample. Results discussed below indicate, however, that automation has increased the efficiency of IV-D actions. The time that the IV-D agency continues to collect child support payments after the family is no longer eligible for AFDC significantly reduces the number of AFDC families that receive child support and increases, although not significantly, the number of families in the CPS sample that receive child support. This pattern of results is not

inconsistent with the hypothesis that the length of collection period shifts families who are likely to receive child support off the AFDC roles and increases the probability of receiving child support in the total population of single mothers.

Two characteristics of the welfare agencies have anomolous associations with the receipt of child support. It is likely that state administered welfare systems have more unified systems for collecting child support, which would increase the probability of collecting from fathers who moved out of the county. The results of this analysis indicate, however, that AFDC families living in states with a state administered welfare system are significantly less likely to receive child support payments.

The other characteristic that had an unexpected relationship with child support receipt is the number of child support cases per full time equivalent staff member. We had expected states that devoted more staff resources per case would be more effective in collective child support. Instead, the results indicate that states with more cases per worker have greater rates of child support receipt. The number of cases per worker may be an indication of the intensity of the state's effort to pursue child support enforcement.

The unemployment rate in the state had a consistently negative impact on child support receipt in both the CPS and AFDC samples. This provides further evidence that the employment of the father is an important determinant of whether child support payments are made.

Impact on Enforcement Actions--Table III.4.5 presents the impact of state characteristics on whether the IV-D agency initiated an action to enforce an agreement and whether the action was successful. The expected effect of some of the state procedures on whether an enforcement action is initiated is ambiguous. To the extent that the procedures increase the perception on the part of the fathers that the child support obligation cannot be avoided, the procedures may reduce the number of enforcement

Table III.4.5

ESTIMATED IMPACT OF STATE ADMINISTRATIVE, LEGAL, AND ENVIRONMENTAL CHARACTERISTICS ON CHILD SUPPORT ENFORCEMENT ACTIONS

	Enforcement Action Taken	Successful Enforcement Action	Unsuccessful Enforcement Action
Administrative procedures used to establish agreements	-.065*** (.013)	-.035** (.010)	-.030** (.012)
Criminal procedure used for nonsupport	-.009 (.015)	-.059*** (.012)	.050*** (.014)
Statute of limitations on paternity establishment	.055*** (.010)	.005 (.008)	.051*** (.009)
Enforcement procedures			
State tax intercept	-.067** (.024)	.003 (.018)	-.070*** (.022)
Liens	.050*** (.010)	.022** (.008)	.028** (.010)
Wage assignment	.064*** (.017)	-.016 (.013)	.080*** (.015)
Automated case monitoring	.042** (.014)	.046*** (.011)	-.087*** (.013)
Time collections continue after family becomes ineligible for AFDC	.008* (.005)	-.010** (.003)	.017*** (.004)
State administered welfare systems	-.043*** (.012)	-.078*** (.009)	.035*** (.011)
Number of child support cases/ number of full-time equivalent staff	.002*** (.0003)	.002*** (.000)	-.001** (.000)
State unemployment rate	-.020*** (.003)	-.010*** (.002)	-.010*** (.003)

actions that are required. To the extent that the procedures increase the ability of the IV-D agency to enforce obligations, the agency may initiate more enforcement actions. The expected net effect of these two influences is unclear. The various procedures are clearly expected to increase the success rate of enforcement actions, however.

The availability of administrative procedures to establish child support obligations is associated with fewer enforcement actions, both successful and unsuccessful attempts. The availability of criminal proceedings for non-support has no impact on whether an enforcement action was undertaken but is associated with significantly fewer successful actions and significantly more unsuccessful actions. As discussed above, the unexpectedly negative impact of criminal procedures may be due to reverse causation. The fact that a state has a statute of limitation on paternity establishment increased the probability that an action was taken, but virtually all the additional actions were unsuccessful.

With respect to the various enforcement procedures, the state tax refund intercept is associated with a reduction in the number of actions taken, and all of this reduction occurs in the number of unsuccessful enforcement actions. The availability of liens increased the number of actions taken and the success rate of these additional actions was roughly the same as the overall success rate for enforcement actions.

The availability of wage assignment is associated with more enforcement actions, but the increase in the number of unsuccessful actions is even larger. It is possible that wage assignment is a particularly ineffective procedure. As discussed above, it is also possible that the large number of unsuccessful attempts led to the adoption of wage assignment procedures.

The use of automated procedures to monitor cases appears to be a particularly effective procedure. It led to a decrease in the number of enforcement actions taken but to an increase in the number of successful actions. Thus, automation appears to increase substantially the efficiency of IV-D enforcement activities.

The length of time that the IV-D agency continues to collect child support payments after the family is ineligible for AFDC is associated with an increase in the number of unsuccessful enforcement actions. State administered welfare systems had fewer enforcement actions but more unsuccessful actions than did county systems.

The number of child support cases per full-time staff member was associated with more enforcement actions, particularly more successful actions. As discussed above, this variable may be serving as a proxy for the intensity with which IV-D agencies are pursuing child support enforcement.

The unemployment rate in the state is associated with fewer enforcement actions, both successful and unsuccessful actions. This suggests that IV-D agencies are less likely to attempt to enforce obligations when there are fewer employment opportunities for the father.

III.4.3 Summary

The investigation of the impact of receiving IV-D services on child support receipt indicates that paternity establishment services are associated with a significant increase in child support receipt. This impact is due to the fact that paternity establishment allows other IV-D services, such as parent locator and enforcement actions, to be provided. After controlling for all other IV-D services provided, paternity establishment services have no independent impact on child support receipt. This result indicates that once paternity is established, other IV-D services must be provided if child support is to be increased.

Parent locator services are estimated to have a significant impact on the receipt of child support. Although some of this impact is due to the increased probability that child support awards can be established and successfully enforced, the successful location of the father, in and of itself, has an independent impact on whether fathers pay child support.

Actions to enforce child support obligations are estimated to have a very significant impact on child support receipt. This result may be an overstatement of the true effect because it is likely that IV-D agencies target enforcement activities to cases that are more likely to receive support and that some of the families may have received support on their own. On the other hand, we cannot estimate with the data available the number of families that stopped receiving welfare because IV-D actions were so successful that they became ineligible for AFDC. Because of these two factors we cannot estimate the size of the impact of enforcement actions with certainty, but the evidence suggests that the impact on child support receipt is substantial.

Court ordered agreements were associated with somewhat greater probability of receiving child support than were other types of agreements, and actions to enforce court-ordered agreements were somewhat more successful. These results are in contrast to results using the CPS sample that indicated court ordered agreements to be less successful, even for AFDC recipients. Part of the differences may be due to differences in the accuracy with which the type of agreement is measured, but evidence on the relative impact of court ordered and other types of child support agreements is ambiguous.

A preliminary investigation of the impact of state administrative and legal procedures indicates that intercepting state tax refunds for fathers that owe child support has a significant impact on the receipt of child support for both AFDC families and for the population of single mothers as a whole. Since the time period covered by this study, many other states have enacted state tax intercepts and recently a federal tax intercept has been enacted. The results of this study indicate that these actions are likely to have a significant impact on the number of families that receive child support payments.

There is evidence that states that use administrative actions to establish child support obligations take fewer actions to enforce those agreements but that the probability of AFDC families receiving support is

significantly lower. The use of automated case monitoring procedures appears particularly efficient: it decreases the total number of enforcement actions but increases the number of successful enforcement actions.

Some of the state procedures that were expected to increase child support receipt, particularly wage assignment procedures, were associated with significantly lower child support receipt. It is possible that these amamolous results are due to reverse causation, whereby states that have a particularly large child support enforcement problem have enacted these new procedures. Further research is required before a definitive conclusion can be drawn about the effects of these specific procedures.

Both approaches that we have used to estimate the impact of IV-D procedures have methodological problems. In particular, the possibility that IV-D procedures are targeted to either easier or more difficult cases or that states adopt procedures as a result of a large enforcement problem qualify the results of our analysis. Nonetheless, the preponderance of evidence suggests that IV-D activities substantially increase the number of families receiving child support payments.

Appendix A.1

EFFECTS OF RECEIVING CHILD SUPPORT ON WELFARE STATUS
(Full Regression Results)

	CPS (N = 2,299)		EOPP Survey (N = 3,749)
Demographic Characteristics			
1 = Head of family	.198***	.178***	—
	(.027)	(.027)	—
1 = Northeast	.117***	.123***	.223***
	(.022)	(.023)	(.017)
1 = Northcentral	.122***	.128***	.094***
	(.021)	(.022)	(.020)
1 = West	.128***	.139***	.108***
	(.023)	(.023)	(.018)
1 = South	—	—	—
	—	—	—
1 = Black	.068***	.083***	.027*
	(.020)	(.020)	(.015)
Age	-.004***	-.004***	-.005***
	(.001)	(.001)	(.001)
Education	-.011***	-.013***	-.002
	(.004)	(.004)	(.003)
Number of children under 6	.083***	.087***	.077***
	(.015)	(.016)	(.010)
Number of children between 6 and 12	.040***	.040***	.046***
	(.012)	(.012)	(.007)
Number of children between 12 and 18	.011	.012	.052***
	(.011)	(.011)	(.008)
Employment Characteristics (in Survey Year)			
1 = Employed	-.222***	-.230***	-.136***
	(.021)	(.021)	(.016)
Earnings ($1,000s)	-.024***	-.025***	-.026***
	(.002)	(.002)	(.001)

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Appendix A.1 (Concluded)

	CPS (N = 2,299)		EQPP Survey (N = 3,749)
Marital Information			
1 = Divorced[a]	-.071**	-.097***	-.067***
	(.029)	(.030)	(.020)
1 = Legally separated	-.0[illegible]**	-.082**	
	(.037)	(.038)	-.093***
			(.020)
1 = Informally separated	-.082***	-.087***	
	(.030)	(.031)	
1 = Never married	—	—	—
	—	—	—
Years married	.001	.00004	—
	(.002)	(.002)	—
Years since marital dissolution	.013***	.015***	.000
	(.003)	(.003)	(.000)
1 = Married more than once	-.018	-.020	.018
	(.027)	(.028)	(.018)
Child Support Information (in Survey Year)			
1 = Receipt of child support (income definition)	-.195***	—	-.261***
	(.020)	—	(.017)
1 = Receipt of child support (supplement definition)	—	-.066***	—
	—	(.019)	—
Constant term	.407***	—	.618***
	(.056)	—	(.051)
Summary Statistics			
R^2	.399	.378	.381
Standard error of estimate	.370	.378	.394
Mean of dependent variable	.349	.349	.487

Note: Standard errors are in parentheses.

[a]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at 10% level.
**Significant at 5% level.
***Significant at 1% level.

Appendix A.2

EFFECTS OF WELFARE STATUS ON THE PROBABILITY OF RECEIVING CHILD SUPPORT
(Full Regression Results)

	CPS (N = 2,299)		EOPP Survey (N = 3,749)
	Supplement Definition	Income Definition	
Demographic Characteristics			
1 = Head of family	.106***	.168***	--
	(.029)	(.027)	--
1 = Northeast	.017	-.004	-.032*
	(.025)	(.023)	(.017)
1 = Northcentral	.021	-.001	-.001
	(.022)	(.022)	(.019)
1 = West	.020	-.026	-.059***
	(.025)	(.023)	(.017)
1 = South	--	--	--
	--	--	--
1 = Black	-.092***	-.092***	-.142***
	(.022)	(.020)	(.014)
Age	.002	-.001	.001
	(.001)	(.001)	(.001)
Education	.015***	.013***	.020***
	(.004)	(.004)	(.003)
Number of children under 6	-.028*	-.016	.001
	(.017)	(.016)	(.010)
Number of children between 6 and 12	.003	.008	.013*
	(.032)	(.012)	(.007)
Number of children between 12 and 18	-.007	-.005	.004
	(.012)	(.011)	(.008)
Employment Characteristics (in Survey Year)			
1 = Employed	.004	.003	.038**
	(.024)	(.022)	(.016)
Earnings ($1,000s)	.000	.004*	.003**
	(.000)	(.002)	(.001)

Appendix A.2 (Concluded)

	CPS (N = 2,299)		
	Supplement Definition	Income Definition	EOPP Survey (N = 3,749)
Marital Information			
1 = Divorced[a]	.411***	.253***	.169***
	(.032)	(.029)	(.018)
1 = Legally separated	.317***	.127***	
	(.041)	(.038)	.056***
1 = Informally separated	.132***	.054*	(.019)
	(.033)	(.031)	
1 = Never married	--	--	--
	--	--	--
Years married	.004**	.005***	--
	(.002)	(.002)	--
Years since marital dissolution	-.017***	-.013***	-.001***
	(.003)	(.003)	(.0004)
1 = Married more than once	-.102***	-.028	-.030*
	(.030)	(.027)	(.018)
Welfare Information (in Survey Year)			
1 = Received AFDC	-.077***	-.200***	-.234***
	(.022)	(.021)	(.015)
Constant term	-.113*	-.018	.107**
	(.061)	(.056)	(.050)
Summary Statistics			
R^2	.277	.286	.210
Standard error of estimate	.406	.376	.373
Mean of dependent variable	.345	.268	.227

Note: Standard errors are in parentheses.

[a]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Appendix A.3

EFFECTS OF WELFARE STATUS ON AMOUNT OF CHILD SUPPORT RECEIVED
(Full Regression Results)

	CPS (N = 2,299)	EOPP Survey (N = 3,749)
Demographic Characteristics		
T = Head of family	82.08 (97.86)	— —
T = Northeast	86.87 (82.52)	99.15 (79.71)
T = Northcentral	-19.01 (79.02)	-20.56 (92.00)
T = West	-31.82 (83.10)	-53.63 (81.63)
T = South	— —	— —
T = Black	-357.38*** (72.58)	-558.20*** (67.05)
Age	10.71** (4.29)	22.95*** (4.48)
Education	69.98*** (12.88)	121.24*** (12.54)
Number of children under 6	-20.57 (55.98)	46.88 (47.29)
Number of children between 6 and 12	124.48*** (42.42)	105.27*** (32.54)
Number of children between 12 and 18	91.57** (40.61)	-2.37 (35.99)
Employment Characteristics (In survey year)		
T = Employed	-47.91 (79.05)	-113.69 (74.65)
Earnings ($1,000s)	4.82** (7.40)	15.50** (6.83)

Appendix A.3 (Concluded)

	CPS (N = 2,299)	EOPP Survey (N = 3,749)
Marital Information		
1 = Divorced[a]	530.20***	339.51***
	(105.50)	(87.47)
1 = Legally separated	363.08***	
	(136.02)	47.89
		(89.97)
1 = Informally separated	93.30	
	(111.02)	
1 = Never married	—	—
	—	—
Years married	17.77***	—
	(5.58)	—
Years since marital dissolution	-31.70***	-4.12**
	(9.82)	(1.93)
1 = Married more than once	-270.07***	-343.97***
	(99.18)	(7[illegible].59)
Welfare Information (in survey year)		
1 = received AFDC	-136.13*	-779.60***
	(74.99)	(71.74)
Constant term	-863.44***	-1,158.06***
	(203.48)	(236.69)
Summary Statistics		
R^2	.165	.116
Standard error of estimate	1,355.61	1,782.88
Mean of dependent variable	651.61	561.77

Note: Standard errors are in parentheses.

[a]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Appendix A.4

EFFECTS OF WELFARE STATUS ON RECEIPT OF CHILD SUPPORT
(Recipients of Child Support)
(Full Regression Results)

	CPS (N = 794)	EOPP Survey (N = 1,042)
Demographic Characteristics		
T = Head of family	-.099*	—
	(.055)	—
T = Northeast	-.067	.006
	(.045)	(.035)
T = Northcentral	.004	.011
	(.042)	(.036)
T = West	-.018	.043
	(.043)	(.033)
T = South	—	—
	—	—
T = Black	.133***	-.022
	(.049)	(.032)
Age	-.002	-.004**
	(.002)	(.002)
Education	-.003	-.008
	(.007)	(.005)
Number of children under 6	.020	.005
	(.032)	(.024)
Number of children between 6 and 12	.003	-.027**
	(.023)	(.015)
Number of children between 12 and 18	-.011	.005
	(.021)	(.017)
Employment Characteristics (in Survey Year)		
T = Employed	.055	.046
	(.003)	(.032)
Earnings ($1,000s)	.001	.004
	(.003)	(.003)

Appendix A.4 (Concluded)

	CPS (N = 794)	EOPP Survey (N = 1,042)
Marital Information		
1 = Divorced[a]	.237***	.046
	(.081)	(.056)
1 = Legally separated	.164*	.001
	-.090	.060
1 = Informally separated	.204**	—
	(.090)	—
1 = Never married	—	—
	—	—
Years married	-.005*	—
	(.003)	—
Years since marital dissolution	-.005	-.0004
1 = Married more than once	.152***	.018
Welfare Information (in Survey Year)		
1 = Received AFDC	.018	.160***
	(.045)	(.033)
Constant term	.262**	.360***
	(.131)	(.115)
Summary Statistics		
R^2	.063	.045
Standard error of estimate	.416	.392
Mean of dependent variable	.236	.197

Note: Standard errors are in parentheses.

[a]For the CPS survey results, a separate dummy variable for widow, previously divorced is included in the regression, but not reported.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Appendix A.5

EFFECTS OF PATERNITY ESTABLISHMENT AND PARENT LOCATOR ACTIVITIES ON AWARD OF CHILD SUPPORT[a]

(AFDC Survey, those with an absent parent and valid award data, N = 14,367)

	Award of Child Support					
	Any Award (.30)		Court Ordered Award (.28)		Other Obligation (.02)	
Establish Paternity						
Unsuccessful attempt to establish paternity (.14)[b]	-.07*** (.01)	-.09*** (.01)	-.06*** (.01)	-.08*** (.01)	-.01* (.003)	-.01*** (.004)6)
Successful attempt to establish paternity (.30)	.21*** (.01)	.13*** (.01)	.19*** (.01)	.12*** (.01)	.02*** (.003)	.01*** (.003)2)
Locate Father						
Unsuccessful attempt to locate father (.30)	— —	.04*** (.01)	— —	.03*** (.01)	— —	.002 (.004)0)
Successful attempt to locate father (.30)	— —	.31*** (.01)	— —	.28*** (.01)	— —	.03*** (.004)2)
Predicted Probability Without Activities (at Mean of Other Variables)	.25	.18	.23	.17	.02	.01

[a]Standard errors in parentheses.

[b]Mean in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.

Appendix A.6

EFFECTS OF IV-D ACTIVITIES ON RECEIPT AND AMOUNT RECEIVED OF CHILD SUPPORT[a]
(AFDC Survey, Those With an Absent Parent and Valid Receipt Data, N = 15,116)

	Receipt of Child Support (.12)[b]				Amount Received (12.32)			
Establish Paternity								
Unsuccessful attempt to establish paternity (14)[b]	-.02** (.01)	-.01 (.01)	.01 (.01)	.00 (.01)	-1.70 (1.07)	-.60 (1.14)	1.25 (1.11)	.72 (1.05)
Successful attempt to establish paternity (.31)	.11*** (.01)	.06*** (.01)	.01** (.01)	.00 (.01)	7.57*** (.80)	3.10*** (.85)	-1.46* (.84)	-2.69*** (.79)
Locate Father								
Unsuccessful attempt to locate father (.29)	-- --	-.03*** (.01)	-.04*** (.01)	-.02*** (.01)	-- --	-3.39*** (.89)	-4.53*** (.87)	-1.96*** (.83)
Successful attempt to locate father (.30)	-- --	.18*** (.01)	.09*** (.01)	.02** (.01)	-- --	16.33*** (1.00)	7.46*** (1.02)	-.99 (.99)
Support Agreement								
Court ordered award (.27)	-- --	-- --	.30*** (.01)	.16*** (.01)	-- --	-- --	30.11*** (1.04)	13.41*** (1.57)
Other obligation (.03)	-- --	-- --	.26*** (.01)	.19*** (.03)	-- --	-- --	23.79*** (2.06)	17.87*** (4.47)
Enforce Support Agreement								
Unsuccessful attempt to enforce court order (.08)	-- --	-- --	-- --	-.11*** (.01)	-- --	-- --	-- --	-9.75*** (1.83)
Successful attempt to enforce court order (.13)	-- --	-- --	-- --	.43*** (.01)	-- --	-- --	-- --	47.95*** (1.73)
Unsuccessful attempt to enforce other obligation (.01)	-- --	-- --	-- --	-.11*** (.04)	-- --	-- --	-- --	-6.56 (5.44)
Successful attempt to enforce other obligation (.01)	-- --	-- --	-- --	.37*** (.04)	-- --	-- --	-- --	30.32*** (5.32)

[a]Standard errors in parentheses.

[b]Mean in parentheses.

*Significant at the 10% level.
**Significant at the 5% level.
***Significant at the 1% level.