

The Potential of the Child Support Enforcement Program to Avoid Costs to Public Programs: A Review and Synthesis of the Literature

Final Report

Prepared for:

**U.S. Department of Health & Human Services
Contract No. HHS-100-97-0007**

Prepared by:

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EXECUTIVE SUMMARY

The Child Support Enforcement program, commonly known as the "IV-D" program, was established in 1975 by Title IV-D of the Social Security Act with the goal of ensuring that non-custodial parents provide appropriate financial support for their children. The program seeks to achieve this goal through four major services: locating absent parents, establishing paternity, establishing child support and medical support obligations, and enforcing support orders. One performance measure in the IV-D program's strategic plan is to reduce government expenditures on means-tested public assistance programs by increasing the amount of child support paid to custodial households by non-custodial parents. Title IV-D was passed by Congress out of concern that families with an absent parent were often left with no choice but to fall back on public assistance as their source of income. In later years, Congress passed additional legislation to improve the collection of child support to reduce government spending on public assistance as well as stabilize families.

State IV-D programs reduce the cost of means-tested public assistance through several mechanisms: (1) by retaining part or all of the child support collected on behalf of custodial households receiving assistance through the Temporary Assistance for Needy Families (TANF) program to offset TANF payments to these families, (2) by keeping households off welfare by helping them to collect child support, and (3) by reducing government expenditures for other government means-tested programs such as Medicaid, Food Stamps, and child care. Expenditures in these means-tested programs are reduced either by requiring the custodial parent to obtain private insurance or pay for the services (as is the case for Medicaid) or by increasing the income of the custodial parent's household (as is the case for Food Stamps). Child support retained by the government to offset TANF payments is sometimes referred to as "cost recovery," while savings to the government by keeping households off welfare through the collection of child support is sometimes referred to as "cost avoidance." In this report we use the term "cost avoidance" in the broadest sense to encompass both recovered resources and costs avoided.

The purpose of this study is to synthesize the theoretical and empirical literature on cost avoidance and to build a comprehensive and coherent framework to evaluate the intricacies of child support cost avoidance. Obtaining accurate measures of child support cost avoidance is difficult because of data limitations and because of the complex relationship between child support enforcement activities, child support collections, and participation in means-tested public assistance programs. Accurate measures are important, however, to provide policymakers and IV-D program directors with the information needed to evaluate the effectiveness of IV-D policies and activities.

Since the IV-D program was established, a handful of studies have estimated child support cost avoidance and numerous other studies have addressed topics that have implications for estimating cost avoidance. This report contains a synthesis of the literature on child support cost avoidance and an annotated bibliography that provides a more detailed summary of 20 published studies. This assessment of the relevance and accuracy of this research comes at an opportune time for the following reasons.

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- With the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996, the Aid to Families with Dependent Children (AFDC) program was replaced with the TANF program. Previous estimates of cost avoidance were rendered obsolete because TANF has substantially different rules on eligibility, participation, work requirements, and time limits. Additionally, because TANF is a block grant program the basic financial interaction between TANF and the IV-D program is substantially different than the AFDC/IV-D relationship. Thus, it is an opportune time to take stock of what we have learned from the former AFDC program and its relationship to child support.
 - Eligibility criteria have been changed for other means-tested programs such as Food Stamps and Medicaid, often increasing the number of individuals who are eligible. Furthermore, new programs, such as the Child Health Insurance Program (CHIP), have been created and child support has cost avoidance implications for these programs.
 - Alternative approaches for estimating cost avoidance have been proposed in recent years, but no efforts have been made to compare the various approaches. Some states have undertaken research efforts to determine cost avoidance in their respective states, and the findings of this study should facilitate further research efforts by the states.
 - Recent studies have investigated the effect of child support enforcement on the behavior of custodial and non-custodial parents in the areas of marriage and divorce, out-of-wedlock childbearing, and labor supply. This synthesis reviews some of these studies of behavior and discusses their implications for measuring cost avoidance.

This report is divided into two major sections. Section I contains a synthesis of the literature and addresses the following topics:

- Defining cost avoidance,
- Estimating cost avoidance,
- Compliance with support orders,
- Child support review and adjustment efforts,
- Child support policy and parental behavior,
- Microsimulation models and their use in estimating cost avoidance, and
- An assessment of using administrative data to estimate cost avoidance.

Section II contains annotations of a subset of representative studies identified during our literature review and discussed in Section I. Each annotation contains a brief description of the study, a summary of data and methods, the principal findings of relevance to cost avoidance, and a discussion of whether the findings can be generalized to other relevant populations.

Below we present the main findings drawn from the literature review, the major limitations of the current literature, and recommendations for future research.

Main Findings: The main findings drawn from the literature are the following.

- **Cost avoidance estimates.** Several studies present estimates of cost avoidance, but differences in methodology, populations analyzed, and assumptions by the authors make the estimates difficult to compare and limit the ability to generalize results. In particular studies that predate current legislative reforms are no longer reflective of current cost avoidance potential. Additionally, because of wide variations in state policies across programs, estimates from a single state study or a national study can only be viewed as illustrative and cannot be used to estimate cost-avoidance potential in any other state. Furthermore, all of these studies suffered from data limitations and methodological problems.
- **Potential cost avoidance.** Although realized cost avoidance is relatively modest under the current child support enforcement system, the potential for cost avoidance is unknown. IV-D program activities to raise low award amounts (e.g., periodic review and adjustment) and increase compliance with support orders (e.g., improved enforcement mechanisms) could lead to less reliance on public assistance for custodial families. On the other hand, there is increasing evidence that many of the non-custodial parents associated with the poorest families participating in means-tested programs have themselves very limited ability to pay child support or provide health care coverage for their children.
- **Child support review and adjustment efforts.** Evaluations of several demonstrations that reviewed and updated support orders found that periodic review and updating of support orders for AFDC cases was effective in avoiding state and federal government costs, that is the overall cost of the process was less than the increase in dollars collected. These estimates may overstate the actual long-run ratio of benefits to costs, however, because the welfare caseload has changed since TANF replaced AFDC. In addition, the average size of the adjustments (most of which are upward adjustments) is likely to be higher after the first review than after subsequent reviews and support orders with greater potential for an upward adjustment were selected for review and modification during these demonstrations. New studies are underway to look at the effects of the review and adjustment policies authorized under welfare reform.
- **Effects of child support enforcement on the behavior of parents.** Child support enforcement has been hypothesized to affect government expenditures through avenues that are difficult to measure directly—such as through changes in parental behavior. Child support enforcement has been hypothesized to affect marriage and divorce, out-of-wedlock childbearing, and labor force participation. The published literature indicates that child support enforcement has, at most, a limited indirect effect on cost avoidance by changing the marital and childbearing behavior of custodial and non-custodial parents. Relatively few studies have been conducted on these issues. The current research focuses on custodial parents and suggests that child support enforcement possibly has a small deterrent effect on divorce and little or no deterrent effect on out-of-wedlock childbearing. Irregularity of child support payments may increase the probability of remarriage. The few published studies on the effect of child support on the labor force participation of custodial mothers find mixed

results. No published studies have been conducted on the effects of child support enforcement on the labor supply of custodial fathers and non-custodial parents.

- **Microsimulation models.** Microsimulation models have several significant advantages over the approach that has been used in most of the cost avoidance studies performed to date. These advantages include the ability to analyze the effects of IV-D program policies on different populations and the flexibility to measure child support under alternative child support enforcement scenarios, and the ability to incorporate behavioral effects. The main disadvantages of microsimulation compared to the traditional approach are the stringent data requirements and the high cost of developing new models. Additionally, although such models have the ability to incorporate behavioral effects, none have done so in the area of child support enforcement. Currently, the Urban Institute's Transfer Income Model (TRIM) is the only major microsimulation model with the capacity to measure child support cost avoidance. The TRIM child support module is undergoing major revisions to bring it into alignment with the recent welfare reform changes.
- **State efforts to use administrative data to estimate cost avoidance.** IV-D program administrative data, merged with administrative data from other government agencies, are potentially a rich source of data to estimate cost avoidance. (Most cost avoidance studies have relied on survey data). As part of this study, researchers from the states of Washington (Formoso, 1999) and Iowa (Garasky et al., 1999) used administrative data to measure cost avoidance. These two studies, like other published studies, have significant data limitations and methodological problems so the estimates come with numerous caveats and should be interpreted with caution.

Why the Current Literature is of Limited Value in Estimating Cost Avoidance: The existing cost avoidance literature as a whole is of limited use to policymakers and IV-D program administrators. Many of the limitations result from the combination of data limitations and the recent welfare reforms that have changed program designs and eligibility criteria.

- **Program changes.** The major limitation is that much of the literature is dated. Many of the studies are based on old (pre 1990) data and calculated under a different set of welfare program guidelines than exist today. Significant changes have occurred in IV-D program activities, welfare programs guidelines, caseload demographics, and social and economic conditions. For example, the replacement of AFDC with TANF, changes in Medicaid and Food Stamp eligibility, and other changes to public assistance programs make many of the empirical findings in the literature obsolete.
- **Changes in socioeconomic conditions.** The U.S. has experienced nearly a decade of solid economic growth. Good economic conditions, in general, contribute to increased child support collections (due to improved employment opportunities of non-custodial parents) and a decrease in the number of households receiving public assistance for reasons other than child support collections. Estimates of the relationship between child support collections and cost avoidance, between welfare program eligibility and program participation, and between child support collection efforts and labor supply likely are sensitive to economic conditions. Thus, previous estimates of the relationship between child support collections, welfare program eligibility, and welfare program participation may no longer be valid.

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- **Public assistance programs analyzed for cost avoidance.** Cost avoidance studies have looked only at savings to three programs: AFDC (now TANF), Food Stamps, and Medicaid. Although the majority of cost avoidance likely consists of savings to these programs, other means-tested programs also benefit from IV-D program activities—e.g., Supplemental Security Income (SSI), Low-Income Housing Assistance, the School Lunch Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the Child Health Insurance Program (CHIP). Combined expenditures on these smaller programs are substantial, and not counting child support cost avoidance to these programs could underestimate total cost avoidance.
 - **Methodological concerns about attributing all child support collections to the IV-D program.** The methodology used in the cost avoidance literature attributes all child support collections to the IV-D program. However, some child support would be collected in the absence of the IV-D program so the current studies potentially overestimate cost avoidance attributed to the IV-D program. The difficult issue here is to determine what child support would still be collected in the absence of a child support enforcement program.
 - **Data limitations.** Many of the published studies suffer from data limitations including small sample size, incomplete data, and lack of longitudinal data. The small sample sizes and/or the small number of communities analyzed in previous studies reduce the reliability of the empirical findings and the ability to generalize the results from the sample to the U.S. population. Although national surveys such as the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP) have been used to obtain national cost avoidance estimates, the small number of custodial households in individual states limits their usefulness for making state-level estimates. Incomplete data are of three types: (1) missing data from incomplete surveys and case files, (2) the absence of key variables (e.g., such as child support information or income and asset information needed to determine eligibility for means-tested programs), and (3) data not collected for a relevant population (e.g., households that have never participated in the IV-D program).
 - **Assumptions on ability to pay.** Existing methodologies that estimate cost avoidance potential make assumptions about the ability of non-custodial parents to pay support. If parents who don't pay support have the same ability to pay as parents who do, then estimates of cost avoidance potential using existing award and payment rates are sound. However, there is a growing body of research which indicates that some of the fathers currently not paying support are substantially poorer and have less education, lower earnings potential, and higher rates of incarceration than previously assumed.

Recommendations for Additional Research: The child support system, public assistance programs, economic conditions, and the demographics of the population participating in the child support system are constantly changing. Thus, continuous research is required to update the empirical estimates of cost avoidance. Furthermore, additional research is required to expand our knowledge of the effect of child support on the behavior of parents and the well-being of children. Below are recommendations for future research based on gaps and limitations in the existing cost avoidance literature.

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- **Refine the methodology for estimating cost avoidance.** Based on our review of published studies, we identified areas for improvement in the methodology for estimating cost avoidance attributed to the IV-D program. Some of these recommendations are to improve specific components of the cost avoidance model (e.g., improvements to the methodology used to estimate the likelihood that welfare-eligible households will participate in the welfare programs). Other recommendations are more complex and require additional research to determine their feasibility (e.g., isolating child support collections that are generated as a result of IV-D program activities from collections that would occur even in the absence of a child support enforcement program).
 - **Update estimates and model parameters to reflect current conditions.** After refining the methodology, cost avoidance estimates should be estimated using more recent data to reflect changes in the economy, changes in child support and welfare caseloads, and changes in welfare rules (e.g., the replacement of AFDC with TANF).
 - **Estimate cost avoidance attributed to specific child support enforcement policies and activities.** Policymakers and program administrators need more detailed information than is generally provided in the literature to help justify existing or proposed IV-D program activities and to help estimate the state and federal budgetary implications of IV-D program activities. A better understanding of the effect of specific enforcement provisions and tools on child support collections would allow program administrators to better allocate scarce resources to improve the financial situation of custodial families and to increase cost avoidance.
 - **Estimate cost avoidance for different types of child support cases.** Cost avoidance estimates for different types of child support cases (defined by the characteristics of either the custodial parent or the non-custodial parent) would provide policy makers and program administrators with better information to target scarce resources for collecting child support. For example, IV-D activities will have different cost avoidance implications for child support cases where the non-custodial parent has low earnings than for cases where the non-custodial parent has high earnings. Similarly, cost avoidance per IV-D case where the child is not enrolled in TANF will likely differ in states where all child support cases are considered part of the IV-D program compared to states where non-TANF child support cases must voluntarily apply to be in the IV-D program.
 - **Conduct additional research on the effect of IV-D program activities on the behavior of custodial and non-custodial parents.** Relatively little information has been published on the effects of IV-D program activities on parental behavior. One reason for the dearth of information in this area is the lack of household level data on parental behavior—especially for non-custodial parents. The small number of published studies on child support and parental behavior suggest that the IV-D program will have a limited impact on cost avoidance, if any, via the effect of child support enforcement on marriage behavior and childbearing. However, the effect of IV-D program activities on the labor market participation of custodial and non-custodial parents could be substantial. Of particular interest is the impact of periodic review on the labor supply of non-custodial parents. Also, additional research is needed on the labor supply impact of specific provisions such as,

automatic withholding for child support, new hire reporting, and long-arm policies that allow states to garnish the earnings of delinquent non-custodial parents in other states.

- **Estimate broader measures of the effect of IV-D program activities on government expenditures and revenues.** Cost avoidance is only one component of the total effect of child support enforcement on the federal and state budgets. A comprehensive measure of the financial benefits of child support collections should include more than cost avoidance—such as including the potential effect on tax revenues and program administrative costs. Few studies estimate the expected impact of IV-D program activities on other program administrative expenses. Program administrative expenses would decline if fewer households were dependent on welfare and these reductions could be substantial.
- **Conduct cost-benefit analyses of child support enforcement.** Cost avoidance estimates are an important component for understanding the net costs of the child support enforcement program. To determine whether a program is worthwhile, though, it is important to compare not just costs but also the benefits of the program from the perspectives of the parties involved, taxpayers, and the entire population.

Researchers have made significant progress in developing the theory of how child support affects expenditures on a variety of public expenditures. In addition, significant progress has been made on developing the tools to estimate cost avoidance. Previous studies estimate modest amounts of child support cost avoidance, but may not reflect the complete cost-avoidance potential. IV-D program activities have a direct impact on public assistance expenditures by increasing child support collections, but also may have indirect effects via the impact on the behavior of custodial and non-custodial parents. More research is needed to assess the indirect impact of IV-D program activities on public expenditures and tax revenues through the effect of such activities on parental behavior. In addition national and state changes in IV-D program activities, public assistance program eligibility and award guidelines, and economic conditions require that cost avoidance estimates be constantly updated and refined.

SECTION I: SYNTHESIS

1. INTRODUCTION

A. Background on the Child Support Enforcement Program

Many of the nation's children do not reside with both their parents. In such instances, child support can be used to assure that non-custodial parents contribute adequately to the welfare of their children. The most recent Census child support data on this issue show that there were 13.7 million families in 1995 where one parent did not reside with the children and were thus candidates for child support. Of these families, 8.0 million families, about 58 percent, had child support orders in place. Among families with orders, 7.0 million were due payment, and 4.8 million had received some or all that was due.¹

The Child Support Enforcement program, commonly known as the "IV-D" program, was established in 1975 by Title IV-D of the Social Security Act with the goal of ensuring that non-custodial parents provide appropriate financial support for their children. The program seeks to achieve this goal through four major services: locating absent parents, establishing paternity, establishing child support and medical support obligations, and enforcing support orders. Title IV-D was passed by Congress out of concern that families with an absent parent were often left with no choice but to fall back on public assistance as their source of income. In later years, Congress passed additional legislation to improve the collection of child support to reduce government spending on public assistance as well as stabilize families.

State IV-D programs reduce the cost of means-tested public assistance through several mechanisms: (1) by retaining part or all of the child support collected on behalf of custodial households receiving assistance through the Temporary Assistance for Needy Families (TANF) program to offset TANF payments to these families, (2) by keeping households off welfare by helping them to collect child support, and (3) by reducing government expenditures for other government means-tested programs such as Medicaid, Food Stamps, and child care either by requiring the custodial parent to pay for the services (as is the case for Medicaid) or by increasing the income of the custodial parent's household (as is the case for Food Stamps). Child support retained by the government to offset TANF payments is sometimes referred to as "cost recovery," while savings to the government by keeping households off welfare through the collection of child support is sometimes referred to as "cost avoidance." In this report we use the term "cost avoidance" in the broadest sense to encompass both recovered resources and costs avoided.

The purpose of this study is to synthesize the theoretical and empirical literature on cost avoidance to develop a comprehensive and coherent framework to evaluate the intricacies of child support cost avoidance. Obtaining accurate measures of child support cost avoidance is difficult because of data limitations and the complex relationship between child support enforcement activities, child support collections, and participation in means-tested public assistance programs. Accurate measures are needed, however, to evaluate the IV-D program.

¹ See the Federal Office of Child Support Enforcement (OCSE) internet home page.

Furthermore, estimates of the impact of specific IV-D program policies and activities on cost avoidance provide policymakers and IV-D program directors information to evaluate the effectiveness of these policies and activities.

The program is a federal-state-local partnership with funding from both federal and state sources. States have primary authority for operating the program, although many choose to delegate this responsibility to counties and other local administering entities. States have wide latitude in setting child support obligations through the establishment of presumptive guidelines, as well as in designing the administrative structure for their child support system. The federal government mandates certain activities and sets performance standards in areas such as paternity establishment and obtaining child support for the custodial household. The federal government also has lead responsibility for establishing procedures for interstate cases.

Although federal legislation promoting child support actions against deserting parents was passed in 1950, the federal role was quite limited until 1975 when Public Law 93-647 added part D to Title IV of the Social Security Act. The 1975 legislation spelled out specific requirements for the federal government and the states in the child support area. The 1975 legislation also required the Department of Health, Education, and Welfare (now Health and Human Services) to maintain a separate organizational unit to administer child support activities. The operational responsibilities of the federal government as established by the 1975 legislation included establishing a parent locator service and standards for state programs, reviewing and approving state child support enforcement plans, auditing and evaluating state programs, certifying cases for referral to federal courts and the Internal Revenue Service, maintaining records, and submitting an annual report to Congress.

The Child Support Amendments of 1984 provided major revisions to the child support enforcement system. Under these amendments, states were required to implement additional enforcement mechanisms such as income withholding, expedited processes for establishing and enforcing support orders, state income tax interceptions, liens against real and personal property, and reporting of delinquency to consumer reporting agencies. The 1984 amendments also contained three other changes of significant interest for this study. First, states were required to establish guidelines for use in setting child support obligations, although use of the guidelines was not required. Second, amendments were added requiring all states to provide services equitably to parents who were not receiving AFDC. Third, the legislation entitled the custodial family on AFDC to receive the first \$50 collected in child support each month, referred to as the “\$50 pass through” or the “\$50 disregard,” and this \$50 was not to be included in the determination of AFDC eligibility or payment amounts.

In 1988, the Family Support Act again modified the child support program in a number of ways. Among the changes with relevance for this project, state child support guidelines became presumptive for all child support cases in the state. The guidelines were to be reviewed at least every four years, and child support orders on behalf of parents on AFDC (and other awards at the request of either parent) were to be reviewed and adjusted if appropriate every three years. Immediate wage withholding was required for IV-D orders that were issued or modified. In addition, states were required to increase their paternity establishment rates.

The Child Support Recovery Act of 1992 made it a federal crime to willfully fail to pay a past-due child support obligation for a child living in another state. The act established criteria that must be met before the IV-D program can refer a case to the United States Attorney, as well as penalties for violating the law. The Omnibus Reconciliation Act of 1993 required states to establish voluntary paternity establishment programs in all birthing hospitals and facilities.

The most sweeping changes to the child support system were enacted as part of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), that is best known for its amendments to the nation's welfare program for families with children. PRWORA included nearly 50 changes to the child support system. Among the major changes are the following:

- States were required to enact uniform laws for interstate cases;
- State IV-D programs were to establish registries of newly hired employees;
- States were required to have computerized state-wide support collection and disbursement centers;
- New penalties, such as license revocation and seizure of assets, were to be made available when child support obligations were not met; and
- The \$50 pass-through requirement was made optional.

The IV-D program represents a sizeable investment by the nation's taxpayers, with some notable accomplishments. During 1997, over 1.29 million paternities and 1.25 million child support orders were established. A total of \$13.4 billion was collected in 1997, representing a 68 percent increase from 1992 collections.² This includes approximately \$2.8 billion in collections for families on AFDC and \$10.5 billion in collections for families not on AFDC. Administrative expenditures for the program were \$3.4 billion of which approximately \$2.3 billion were federal expenditures and \$1.1 billion were state expenditures.³

Gross program expenditures may, however, be quite misleading as a measure of true program cost because the IV-D program leads to child support collections that reduce or eliminate public assistance payments to some families. Most of the child support payments on behalf of children receiving TANF, the program that replaced AFDC, are retained by the state and federal governments and therefore offset welfare program expenditures. In FY 1996, for example, 15.5 percent of AFDC payments were recovered through child support collections made through the IV-D system.

In addition to the recovery of welfare payments, the child support system reduces government expenditures through avenues that are more difficult to measure directly. First, child support payments affect program eligibility, enrollment, and the level of benefits provided to families

² In real (i.e., inflation-adjusted) dollars the increase in collections was approximately 47 percent from 1992 to 1997.

³ Source: 22nd OCSE Annual Report.

through Food Stamps, Supplemental Security Income (SSI), and other health and human service programs. Medicaid program expenditures, for example, are reduced because some families receive sufficient child support that they are no longer eligible for the program. Some child support orders also include provisions for non-custodial parents to provide health insurance for their children (i.e., medical support orders), further reducing Medicaid costs. Second, the IV-D program may reduce costs to the government by inducing certain changes in parents' behavior in the areas of marriage and divorce, out-of-wedlock childbearing, and labor force participation.

B. Background on this Project

The U.S. Department of Health and Human Services (HHS) has funded this research project by The Lewin Group and Johns Hopkins University to synthesize the literature on child support cost avoidance and to identify areas where additional research is required. This research comes at an opportune time for the following reasons.

- With the passage of the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) in 1996, the Aid to Families with Dependent Children (AFDC) program was replaced with the TANF program. Previous estimates of cost avoidance were rendered obsolete because TANF has substantially different rules on eligibility, participation, work requirements, and time limits. Additionally, because TANF is a block grant program the basic financial interaction between TANF and the IV-D program is substantially different than the AFDC/IV-D relationship. Thus, it is an opportune time to take stock of what we have learned from the former AFDC program and its relationship to child support.
- Eligibility criteria have been changed for other means-tested programs such as Food Stamps and Medicaid, often increasing the number of individuals who are eligible. Furthermore, new programs, such as the Child Health Insurance Program (CHIP), have been created and child support has cost avoidance implications for these programs.⁴
- Alternative approaches for estimating cost avoidance have been proposed in recent years, but no efforts have been made to compare the various approaches. Some states have undertaken research efforts to determine cost avoidance in their respective states, and the findings of this study should facilitate further research efforts by the states.
- Recent studies have investigated the effect of child support enforcement on the behavior of custodial and non-custodial parents in the areas of marriage and divorce, out-of-wedlock childbearing, and labor supply. This synthesis reviews some of these studies of behavior and discusses their implications for measuring cost avoidance.

The major tasks in this project include:

⁴ In FY 1997, Congress authorized the Child Health Insurance Program (Title XXI of the Social Security Act) which expands eligibility for free or low cost healthcare coverage to children in households with income up to 250% of the poverty level.

- A synthesis of the literature on cost avoidance, including studies on compliance, child support review and adjustment efforts, and behavioral implications of child support policies;
- A summary of additional research that is needed and recommendations about the most promising strategies for expanding our knowledge about cost avoidance;
- An annotated bibliography of reports of major cost avoidance studies and other studies that are relevant to the issue of measuring cost avoidance;
- An assessment of microsimulation models, such as The Urban Institute’s TRIM2 model, and their current and future capacity to estimate cost avoidance;
- An assessment of using administrative data to measure cost avoidance—including a review of studies by Iowa, New York, and Washington; and
- A conference to bring together federal, state, academic, and contractor experts on cost avoidance.

C. Description of this Report

The purpose of this report is to present and summarize our findings from the project tasks listed above. The report is divided into two major sections. Section I contains a synthesis of the literature, an assessment of microsimulation models, and an assessment of using state administrative data to estimate cost avoidance. Section II contains an annotated bibliography.

In Section I of this report we define child support cost avoidance and discuss broader measures of IV-D program success (Chapter 2), we summarize the methodologies employed in the literature to estimate cost avoidance and suggest possible improvements to the methodology (Chapter 3), we review studies of compliance with child support orders (Chapter 4), we review several evaluations of child support review and adjustment efforts (Chapter 5), and we synthesize the literature on the behavioral implications of child support policies (Chapter 6). In each of these chapters, we review the data and methodologies employed in the various studies. Then, where appropriate, we describe the ideal data sets for conducting these analyses, as well as outlining the general methodology that is appropriate for each type of analysis. Finally, we review the use of microsimulation models for estimating cost avoidance (Chapter 7); we assess the use of administrative data for estimating cost avoidance and summarize recent cost avoidance research in Iowa, New York, and Washington (Chapter 8); and we summarize our major findings and present recommendations for future research (Chapter 9).

Section II contains annotations of a subset of studies identified during our literature review and discussed in Section I. The annotated bibliography does not provide a comprehensive review of the cost avoidance literature. Instead, project staff and officials from HHS selected 20 studies that represent the range of research conducted in this field.⁵ In doing so, an effort was made to include representative studies of various types.

⁵ Studies were identified through an electronic search of the literature and through a survey of area experts.

2. DEFINING COST AVOIDANCE

Child support cost avoidance is defined most broadly as the reduction in public welfare expenditures attributable to the collection of child support.⁶ When the child support enforcement program was first authorized there were two separate concepts related to the current, broad definition of cost avoidance. The first concept was cost recovery. That is, the child support collections that could be used to recoup or repay benefit costs that had been paid to families receiving AFDC (now TANF).⁷ The IV-D program was mandated to recoup for the federal and state government as much of AFDC payments paid to families as possible. For example, overdue child support for periods when the family was not on welfare had to be used to repay AFDC costs. The second concept was a narrow definition of cost avoidance limited to means-tested government (state and federal) benefits. Cost avoidance in this context meant families would not be eligible for welfare benefits because the family had increased income through the collection of child support. Over time these two concepts have merged into a single definition of cost avoidance that encompasses “repayment” and reduced eligibility components as well as behavioral changes that may result from increased efforts to collect child support.

In this report, unless otherwise noted we use the term “cost avoidance” in the broadest sense to encompass both recovered resources and reduced eligibility. When a more narrow definition of cost avoidance is used to more clearly define the components of cost avoidance, we use the term “cost recovery” to refer to the amount of TANF (or AFDC) expenditures recouped from child support collections, and we use “cost avoidance” to refer to public welfare expenditures from means-tested programs that are never realized because of child support collections. The reader is alerted when this more narrow definition of cost avoidance is used.

In this review of the literature we found that authors have used different definitions of cost avoidance depending on the scope and purpose of their studies. Some studies include welfare “cost recovery” in their cost avoidance estimates (e.g. Sorensen and Wheaton, 1998) while other studies differentiate between cost recovery and cost avoidance and report each separately (e.g. Texas, 1997). When cost avoidance is discussed in the literature, cost avoidance is generally defined as the reduction in government expenditures on means-tested programs (and cost recovery) that has occurred as a result of child support already collected. Below we list definitions of cost avoidance as set forth, either explicitly or implicitly, in some of the studies we reviewed.

...the indirect savings when a family leaves or stays off of the AFDC, Food Stamp or Medicaid programs because of child support collections (Temple et al., 1986);

⁶ A broad definition of welfare is used that includes all means-tested programs (i.e., both those that provide cash and non-cash assistance).

⁷ Legislation enacted in 1984 allowed families on AFDC to keep the first \$50 in child support collected each month (i.e., the \$50 pass-through) with the remaining amount retained by the states to offset AFDC costs. In 1996, PRWORA gave states the option to continue the pass-through. As of November 1, 1997, 21 states had elected to continue the child support pass-through.

... a situation in which public assistance benefits (i.e., AFDC, food stamps, and Medicaid) are either reduced or not paid as a result of the receipt of child support through the IV-D program (AS/SRA, 1987);

... [the] amount of public assistance [the] custodial family would be entitled to receive if existing child support payments were hypothetically taken away (GAO, 1991);

...how much welfare did not have to be paid to clients because child support collections substituted for welfare (Texas, 1997); and

...government savings per dollar of child support collected (Wheaton and Sorensen, 1998).

Several studies we reviewed discuss cost avoidance in the context of the potential future reduction in government public assistance through the collection of additional child support. These studies include estimates of the difference in public welfare expenditures between the status quo and the following three scenarios: (1) proposed, new IV-D program activities (Abt Associates and the Urban Institute, 1994); (2) IV-D program activities recently enacted into law (Congressional Budget Office, 1996a); and (3) hypothetical scenarios such as when 100 percent of eligible families have child support orders and there is 100 percent compliance (Sorensen and Wheaton, 1994).

Furthermore, child support cost avoidance has been defined implicitly in the literature both as the reduction in public welfare expenditures *attributed to the IV-D program*, and the reduction in public welfare expenditures *attributed to all child support collections*. Although these two definitions are similar, to estimate cost avoidance attributed to the IV-D program one must tackle the difficult task of estimating the level of child support that would be collected in the absence of the IV-D program. None of the cost avoidance studies we reviewed did this. Rather, the studies we reviewed estimate cost avoidance attributed to total child support collections, which overestimates cost avoidance attributed to the IV-D program.

Various measures can be used to quantify child support cost avoidance and cost recovery. These include both the absolute dollar amounts and “standardized” measures. Standardized measures may include (1) average cost avoidance per IV-D case, (2) average cost avoidance per TANF case, (3) cost avoidance per dollar of child support collected, and (4) cost avoidance per dollar expended by the IV-D program. All of these are valid measures. However, caution should be used when comparing these measures across states and over time. For example, all four standardized measures are sensitive to the proportion of IV-D cases that are non-TANF cases (which can vary by state and over time). In general, child support collections are higher for the non-TANF caseload, but potential cost avoidance and cost recovery are greater for the TANF caseload. Resources spent on the non-TANF cases to collect child support have higher returns in terms of child support collected, relative to TANF cases, but lower returns in terms of cost avoidance.

Child support cost avoidance studies have mostly focused on the mechanical effects of child support collections on welfare program eligibility and benefit levels for the three largest means-tested programs involving children—AFDC (now TANF), Food Stamps, and Medicaid. Child support also has cost avoidance implications for numerous smaller means-tested programs such

as Women, Infants, and Children (WIC); Supplemental Security Insurance (SSI); and programs that provide subsidized housing or other assistance.

Reduced expenditures on welfare are only one component of the net impact of IV-D program activities on state and federal finances. Child support income and specific IV-D program activities may affect the behavior of both custodial and non-custodial parents regarding labor force participation, divorce, remarriage, and childbearing. These behavioral effects have implications both for current and future government expenditures and for tax revenues. A reduction in welfare cases also reduces the cost of administering welfare programs. In sum, a broader measure of the net effect of child support enforcement on the federal and state budgets is one that includes cost avoidance, cost recovery, the effect on tax revenues, and changes in program administrative costs.

3. ESTIMATING COST AVOIDANCE

Since the establishment of the IV-D program, numerous studies have analyzed welfare and child support issues that have cost avoidance implications. Only a handful of studies, though, *explicitly* estimate cost avoidance. The majority of the relevant literature contains analyses of narrowly defined issues dealing with the relationship between IV-D program activities and child support collections, the relationship between child support collections and welfare dependency, and the impact of child support enforcement on parental behavior. Even so, many of these studies provide useful information for estimating cost avoidance.

In this chapter we review the major cost avoidance studies conducted within the past two decades and numerous studies that address issues relevant for measuring cost avoidance. We summarize the findings, limitations, and data and methodology used to estimate cost avoidance in these studies and we discuss possible improvements to the methodology. In the annotated bibliography we summarize in detail the findings, limitations, data used, and methodology used in the following subset of representative studies:

- “Cost Avoidance Achieved by the IV-D Program (Chapter III)” (MAXIMUS, 1983);
- “Estimates of Cost Avoidance Attributable to Child Support Enforcement” (AS/SRA, 1987);
- “Potential Effects of Increased Child Support Enforcement on Poverty, Welfare Costs, and Welfare Dependency: Preliminary Evidence From TRIM2” (Sorensen and Wheaton, 1994);
- “Child Support’s Effectiveness in Reducing Public Assistance Obligations, FY 1996” (Texas, 1997); and
- “The Role of Child Support in Texas Welfare Dynamics” (Schexnayder et al., 1998).

A. The Literature

1. Cost Avoidance Studies

Some of the first studies to provide in-depth analysis of cost avoidance include MAXIMUS, Inc. (1980 and 1983); Washington Department of Social and Health Services (1980); Ketron, Inc. (Temple et al., 1986); and Advanced Sciences, Inc. and SRA Technologies (AS/SRA) (1986 and 1987). In the past decade there have been no major cost avoidance studies, but there have been a number of exploratory and single state efforts (e.g., Sorensen and Wheaton, 1994; Wheaton and Sorensen, 1998; the Congressional Budget Office, 1996a; the Attorney General’s Office of the State of Texas [Texas, 1997]; Garasky, et al., 1999; and Formoso, 1999).

The MAXIMUS, Temple et al., and AS/SRA studies were commissioned by the Office of Child Support Enforcement (or its predecessor, the Office of Research and Statistics, Social Security Administration) to further the development of a methodology to measure cost avoidance and to calculate national cost avoidance estimates. The MAXIMUS and Temple et al. studies analyze data collected for a stratified random sample of IV-D program clients in selected communities,

while the AS/SRA study uses data from the Survey of Income and Program Participation (SIPP). These studies define cost avoidance as public assistance expenses not realized because child support was collected. They do not estimate cost recovery and they focus their attention on the non-AFDC IV-D caseload.

The Washington and Texas studies measured cost avoidance attributed to the IV-D programs in their respective states. The Washington study uses survey data from a random sample of IV-D program clients. These data are supplemented with information from program case files. The Texas study relies on information in the case files of IV-D program clients and data on Medicaid enrollment from the Texas Department of Health and Human Services case files. The Washington study does not estimate cost recovery; the Texas study reports cost recovery as a separate component of cost avoidance.

The Urban Institute studies use the Institute's Transfer Income Model version 2 (TRIM2) to analyze participation in and costs of the AFDC, Food Stamp, and Medicaid programs. Sorensen and Wheaton (1994) estimate welfare dependency and public assistance expenditures under a scenario where 100 percent of eligible households receive a child support award and 100 percent of child support obligations are paid. These estimates are compared to a baseline scenario that estimates the level of welfare dependency and public assistance expenditures under the status quo. Wheaton and Sorensen (1998) describe the model's capabilities for estimating cost avoidance and summarize cost avoidance research conducted using TRIM2 during the 1990s. These two Urban Institute studies estimate cost avoidance that includes cost recovery. The population analyzed consists of all children eligible to receive child support—not just IV-D cases.

A CBO (1996a) study uses TRIM2 and other cost-benefit approaches to estimate the projected federal budgetary effects of new IV-D program activities in Title III of PRWORA. These new activities include (1) a new-hire registry to provide information on employment and earnings of non-custodial parents, (2) giving states the option to allow TANF recipients to keep the first \$50 of child support collected each month, (3) streamlining the process by which states can seize the assets of delinquent non-custodial parents, and (4) reducing the amount of current child support collections that states can seize to reimburse themselves for benefits paid to former TANF recipients. Although CBO provides estimates of expected budgetary impacts of the proposed IV-D program activities, the published study provides no information on the data, assumptions, and methodology used to derive their findings. Like the Urban Institute studies, the CBO analysis estimates cost avoidance that includes cost recovery and is based on the entire U.S. population of children eligible to receive child support.

2. Other Relevant Child Support Studies

In addition to the small number of cost avoidance studies listed above, the literature contains a substantial number of studies that have contributed to the theory and methodology to measure cost avoidance. This body of literature includes:

1. Studies of the impact of IV-D program activities on child support collections. Specific topics include routine income withholding (e.g., Robins, 1986; Klawitter and Garfinkel, 1992), and

child-support assurance programs (e.g., Garfinkel et al, 1988; Sorensen and Clark, 1994; Hammaker, 1994; and CBO, 1996b).

2. Studies of the impact of child support levels and regularity on welfare dependency (e.g., Robins and Dickinson, 1985; Robins 1988; Brandon, 1995; and Schexnayder et al., 1998).
3. Studies that analyze a subset of the population that is affected by IV-D program activities (e.g. Abt Associates/Urban Institute, 1994).
4. Studies of compliance with child support orders (e.g., Peters et al., 1993; Garfinkel and Robins, 1994; and Meyer and Bartfeld, 1997).
5. Evaluations of child support review and adjustment efforts (e.g., Price et al., 1991; Policy Studies Inc., 1991; Bishop, 1992; and Meyer and Dworsky, 1997).
6. Studies that investigate hypothesized behavioral changes caused by IV-D program activities and receipt of child support. Behavioral changes include the impact of child support enforcement and child support on marriage and divorce, child bearing, and participation in the labor force (e.g., Nixon, 1997; Case, 1996; and Hu, 1999).

Many of the studies we reviewed analyze topics that address two or more of these categories. In this chapter we review the major cost avoidance studies as well as studies in categories (1) through (3) above. We review studies in categories (4) through (6) in the subsequent three chapters. A summary of the populations and cost avoidance areas analyzed in the literature we reviewed is presented in **Table 3-1**.

B. Data

The major cost avoidance studies that we reviewed all use household level (or family or case level) data to determine the impact of child support income on eligibility for public assistance and the level of assistance received. The Urban Institute, AS/SRA, and CBO studies use the U.S. population of custodial households as the sampling frame, while the remaining studies use the population enrolled in IV-D programs as the sampling frame. Case records are the main source of data for studies that use the IV-D population as the sampling frame. Case records are usually supplemented with client surveys or merged with administrative data from various state welfare agencies.

The AS/SRA study uses SIPP data. The SIPP sample analyzed is a stratified random sample of the non-institutionalized population in the United States where the household contains at least one unmarried, dependent child under 21 years of age and where at least one of the child's natural parents does not reside in the home. The Urban Institute studies and other studies that rely on the Urban Institute's TRIM2 model (e.g., Abt/Urban, 1994; CBO, 1996a and 1996b) use data from the Current Population Survey (CPS).

Table 3-1 Studies that Measure the Impact of Child Support on Welfare Dependence and Cost

Study	Population Analyzed			Program Analyzed					
	IV-D Cases		Non IV-D Cases	AFDC		Food Stamps		Medicaid	
	AFDC	Non-AFDC		Participation	Cost	Participation	Cost	Participation	Cost
<i>Cost Avoidance Studies</i>									
MAXIMUS (1983)		4		4	4	4	4		
Ketron (Temple et al., 1986)	4	4		4	4	4	4	4	4
AS & SRA (1987)		4	4	4	4	4	4	4	4
The Urban Institute (Sorensen and Wheaton, 1994a, 1998)	4	4	4	4	4	4	4	4	4
The Urban Institute (1994b)	4	4	4	4	4				
CBO (1996a)	4	4	4		4		4		4
Texas (1997)	4	4		4	4	4	4	4	4
Garasky et al. (1999)	4	4		4	4	4	4	4	4
Formoso (1999)	4			4	4				
<i>Sample of Other Relevant Child Support Studies</i>									
Robins and Dickinson (1985)	4	4	4	4					
Robins (1986)	4	4	4	4					
Robins (1988)	4	4	4	4					
Garfinkel et al. (1990)	4	4	4	4					
Klawitter and Garfinkel (1992)	4	4	4	4	4				
Sorensen and Clark (1994)	4	4	4	4					
Abt/Urban (1994)		4	4			4	4		
Brandon (1995)	4	4	4	4					
Nixon (1996)	4	4	4	4	4				
CBO (1996b)	4	4	4	4	4	4	4	4	4
Schexnayder et al. (1998)	4			4					

The use of household level (or family or case level) data is ideal for a comprehensive study of cost avoidance because cost avoidance is achieved by reducing or eliminating a household's dependence on public assistance, and all decisions are presumed to be made at the household level. Eligibility for public assistance and level of benefits awarded are based on household income, assets, number of children, and living arrangement. Similarly, the decisions made by custodial parents (e.g., participation in the labor force, participation in welfare programs, and decisions regarding marital relationships and child bearing) are affected by household circumstances and thus can be considered household decisions.

In addition, the effect of child support on program eligibility can change month to month because other household income and asset levels continually fluctuate. In some months the receipt of child support may be sufficient to affect welfare eligibility, while in other months it may not. Variability in household income and assets over time suggests that cost avoidance can best be estimated using longitudinal data that tracks income and asset levels of individual custodial households over time on a consistent (e.g., monthly) basis.

Unfortunately, much of the data collected through national surveys and by agencies that administer the IV-D and welfare programs suffer from severe shortcomings that present difficulties for measuring cost avoidance. National surveys such as CPS and SIPP do not collect sufficient information on the level of household assets, which is one criterion for determining eligibility for public assistance. The CPS collects annual income and child support data; however, income and child support received can vary month to month and annual data do not capture this variability. The information in CPS and SIPP is self-reported, and much of the key data required for measuring cost avoidance are imputed. Small sample sizes limit the usefulness of CPS and SIPP data for making reliable state level estimates of cost avoidance.

Data collected by the IV-D program and welfare agencies also suffer from several shortcomings. Case files often lack pertinent information for measuring cost avoidance. Also, data on those individuals who are not part of the IV-D program, but who would be part of the program in the absence of child support, are not available in administrative records.

The optimal database for measuring cost avoidance would contain monthly, household level data on the following variables: (1) income and assets, (2) child support obligations and payments, (3) labor force participation of both parents, (4) participation in welfare programs, and (5) amount of public assistance received. In addition, it would contain basic demographic information on both the custodial household and the non-custodial parent. Unfortunately, such a database does not currently exist although some state efforts (e.g., the Iowa Data Linkage Project) have created longitudinal databases with a subset of the desired variables.

The use of aggregate level data is an alternative to using household level data to estimate cost avoidance. Aggregate level data on various sub-populations (such as the IV-D population, households participating in various welfare programs, etc.) are often readily available in published reports and may be the only source of information on some households (e.g., households not participating in the IV-D program). Researchers estimating cost avoidance may find it necessary to use both household level (or case level) data and aggregate level data to estimate cost avoidance.

In the following section we describe the general methodology used in the literature to estimate cost avoidance. Where appropriate, we suggest improvements to the methodology or data used in various studies. In presenting the methodology we assume that household level data is the main source of data. However, the methodology can easily be modified to apply to aggregate level data. We present the methodology to estimate cost avoidance attributed to all child support payments, but recognize that some child support would be collected in the absence of the IV-D program.

C. Methodology

TANF, Food Stamps, Medicaid, and most other public assistance programs are means-tested programs, so the receipt of child support may affect a household's program eligibility. In the case of Food Stamps, the receipt of child support can also affect the award amount. The cost avoidance studies that we reviewed focus on the mechanical impact of child support on welfare program eligibility and award amounts. The mechanical impact is measured by applying program eligibility requirements and award guidelines to determine the increase in public welfare expenditures that would occur if child support were excluded from total household income.

The impact of child support on welfare program eligibility, program participation and award amounts also has a behavioral component. IV-D program activities and the receipt of child support may affect the opportunities available to, and the behavior of, custodial and non-custodial parents. Consequently, model parameters estimated under one child support enforcement scenario (e.g., the status quo) may not be accurate for an alternative hypothetical child support enforcement scenario (e.g., no IV-D program exists). Possible behavioral effects of child support enforcement and their cost avoidance implications are discussed in Chapter 6.

The cost avoidance studies in the literature concentrate on the three largest (in terms of spending) public welfare programs that enroll a significant number of children (i.e., TANF/AFDC, Food Stamps, and Medicaid). Accordingly, we focus our discussion on these three programs. Child support likely has modest cost avoidance implications for other means-tested programs. A non-comprehensive list of means-tested programs where child support payments may lead to cost avoidance is shown in *Table 3-2*.⁸

⁸ Many of the statistics cited in this chapter come from the 1998 Green Book Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means and the internet sites of various federal government departments.

Table 3-2 Federally Authorized Programs with Potential for Cost Avoidance

Program	Projected Total Program Expenditures in FY 2000 (in millions)
Medicaid	\$115,386
Supplemental Security Income (SSI)	\$31,299
Food Stamps	\$22,487
Temporary Assistance to Needy Families (TANF)	\$17,087
Section 8 Low-Income Housing Assistance	\$10,640
School Lunch Program	\$5,569
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	\$4,105
Child Health Insurance Program (CHIP)	\$475
Summer Food Service Program for Children	\$315

Source: FY 2000 Federal Budget

Determination of the mechanical effect of child support on TANF, Food Stamps, and Medicaid requires the following information for each program:

1. Eligibility requirements and program participation rates;
2. TANF and Food Stamp Program award guidelines and Medicaid expenditures per program enrollee;⁹
3. Program spell duration and recidivism rates; and
4. A model for combining (1) through (3).

Each program should be analyzed separately because each program has different eligibility requirements, the method for computing cost avoidance differs by program, and the model parameters (e.g., participation probabilities) differ by program. In Table 3-3 we summarize the areas where child support enforcement can affect public revenues and expenditures for the TANF, Medicaid, and Food Stamps programs.

⁹ An enrollee is someone who is eligible and applies for participation in a program. Not all Medicaid enrollees incur medical expenses, so average Medicare costs per enrollee should not be confused with average Medicare costs per beneficiary (i.e., an enrollee who incurs medical costs).

Table 3-3 Factors That Affect (Or Are Hypothesized to Affect) Public Assistance Expenditures When Child Support Is Collected

Effect of Child Support On Program expenditures	Type of Benefit
Child support payment less pass-through/disregard (in states with pass-through/disregard) for TANF cases	TANF Cost Recovery
Collections from arrears payments	
TANF-eligible family decides not to apply for TANF	TANF Cost Avoidance
Family made ineligible for TANF	
Medicaid-eligible family decides not to apply for Medicaid	Medicaid Cost Avoidance
Family made ineligible for Medicaid	
Decrease in Medicaid expenditures through private health insurance coverage	
Food Stamps-eligible family decides not to apply for Food Stamps	Food Stamps Cost Avoidance
Family ineligible for Food Stamps or receives reduced allotment due to child support	
Decrease in other public assistance (e.g., housing subsidies, WIC, SSI, CHIP)	Additional Cost Avoidance
Effect on custodial parent's labor force participation	
Effect on custodial parent's propensity to marry/remarry	
Reduction in out-of-wedlock childbearing	
Effect on custodial parent's labor force participation	Tax Revenues
Effect on non-custodial parent's labor force participation	
IV-D program operation costs	Program Administration
Food Stamp program operation costs	
Medicaid program operation costs	
TANF program expenditures	

In the remainder of this Chapter we describe the methodology estimate cost avoidance to the TANF, Food Stamps, and Medicaid programs. This methodology could easily be modified and used to estimate cost avoidance to other means-tested programs.

1. TANF Cost Avoidance

The broadest measure of the effect of child support enforcement on TANF expenditures would include (1) TANF costs recovered when the government retains child support collected on behalf of households in TANF, (2) TANF costs never incurred because child support kept custodial families off TANF, and (3) the reduction in TANF administrative costs when child support keeps custodial families off TANF. States can directly measure TANF costs recovered. In this section we focus our methodology on points (1) and (2).

In fiscal year 1997, 10.9 million individuals from 3.9 million families participated in TANF/AFDC. Data from 1993, though dated, show that approximately 47.5 percent of AFDC mothers had never been married, 22.7 percent were widowed or divorced, and 17.3 percent were married but the husband was absent from the home. In only 12.6 percent of families were both

parents present. Consequently, over 80 percent of AFDC families were eligible for child support in FY 1993. In addition, child support made numerous custodial households ineligible for TANF/AFDC or was a factor in the household's decision not to participate in the program.

In the subsequent sections we discuss TANF eligibility and participation, TANF awards, and spell duration and recidivism. Almost all of the studies that we reviewed were conducted prior to TANF (i.e., under AFDC) or use data from the period prior to TANF. Consequently, the empirical findings from these studies may not be valid in the TANF environment. This limitation of the literature on TANF cost avoidance is discussed in more detail later.

a) TANF Eligibility and Participation

TANF eligibility criteria vary by state, although the federal government sets general eligibility guidelines that states must follow to receive federal funding. Program eligibility is determined by comparing the household's income and assets against the program eligibility thresholds.

Not all households that are eligible for TANF (and for other means-tested programs) choose to participate. Possible reasons include (1) the stigma associated with welfare dependency, (2) the household may not be willing to comply with certain eligibility conditions (such as the requirement that unwed mothers assist the IV-D program to establish paternity of the children), and (3) households may decide that the costs of participation outweigh the benefits. The latter explanation may be especially true for households that anticipate a small award or only a short spell of financial hardship. Also, households may not know they are eligible for participation.

Studies in the literature have used two approaches to estimate the probability that eligible households will apply for public assistance. The first approach is simply to divide the number of participating households by the number of eligible households. AS/SRA used this approach and calculate that 72 percent of AFDC eligible households applied for AFDC during the period of their study (1983-84). The second approach is to estimate a model that predicts the probability that eligible households will apply for public assistance based on the characteristics of the custodial household and the expected level of benefits. This approach allows for the possibility that program-eligible households that participate in TANF are systematically different (or have systematically different circumstances) than households that do not participate in TANF.

The Urban Institute's TRIM2 model uses the probability model approach and simulates AFDC participation for AFDC-eligible households. The overall simulated participation rate for AFDC-eligible households is 44 percent. However, simulated participation probabilities vary substantially by household. TRIM2 predicts that 65 percent of households that become eligible for AFDC only after losing child support will apply for AFDC. TRIM2 predicts that 13 percent of AFDC-eligible households that currently receive child support but that do not participate in AFDC would participate if their child support payments were hypothetically taken away. This low average probability suggests that increasing AFDC benefits has little impact on the AFDC participation behavior of households that choose not to apply for AFDC benefits, or a large number of custodial households that receive child support receive relatively small child support amounts, or both. Wheaton and Sorensen (1998) estimate, using TRIM2, that if no child support had been paid in 1989, then AFDC participation would have been three percent higher.

Blank and Ruggles (1996) examine AFDC participation of single mothers and their children using 1985 through 1989 data from the SIPP. They find that single mothers used AFDC in only 62 to 70 percent of the months for which they were eligible. Single mothers who experience long spells of eligibility were more likely to participate in AFDC than were single mothers with short spells of AFDC eligibility. Women who chose not to participate in AFDC, despite eligibility, tended to be white, older, less likely to have a disability, have more formal education, and have fewer children than women who choose to participate. Blank and Ruggles find that 50 percent of single mothers who left AFDC were still eligible for the program, and 30 percent were still AFDC eligible 12 months later.

Klawitter and Garfinkel (1992) analyze the effect of routine income withholding for child support on AFDC participation and costs. Their analysis is based on the outcome of a Wisconsin pilot demonstration involving 10 counties. They find that routine withholding does not greatly affect AFDC participation rates because families on AFDC traditionally have low award levels. They find that if Wisconsin were to collect 100 percent of child support obligations from fathers of children on AFDC, the state's AFDC caseload would decline by only two percent.

b) TANF Award Amounts

The size of each TANF award depends on several factors, including family size, state award guidelines, and the amount of household income from other sources. In some states, TANF households for whom child support is collected are allowed to retain some of the amounts collected—often \$50, in child support collected each month (i.e., the \$50 pass-through). The pass-through/disregard does not affect the size of the TANF award. Simulation of household award amounts, both with and without child support counted in total household income, can be used as one factor to predict the likelihood that TANF-eligible households will apply for benefits because the net benefit of TANF participation (i.e., the size of the award minus child support retained by the government) is likely correlated with the probability of program participation.

When household level data is not available to compute TANF awards for each case, one can simulate payments to households using published statistics such as program averages. For example, the national average monthly TANF payment was \$362 in FY 1997 (defined as total program expenditures divided by total caseload). Household level data is preferred to program averages, however, for calculating TANF awards for measuring cost avoidance for several reasons. One, published statistics might not reflect the average TANF award for the population of interest—e.g., IV-D cases. Second, the use of average TANF payments may overestimate TANF cost avoidance because households that are more likely to become ineligible for TANF, or stop participating in TANF, as the result of child support receipts could very well be households with smaller TANF awards, on average. Third, because program eligibility criteria can differ by state, average payments may vary by state.

Texas (1997) estimates AFDC cost avoidance using the average payments approach. Texas estimates that for households with a history of AFDC participation who receive child support and who were not on AFDC at any time during 1996, the average monthly AFDC grant would have been \$173. The estimated average monthly grant for this population ranges from \$163 for a case involving one parent and one child to \$288 for a case involving one parent and five children. Texas identified households that were receiving child support and that left AFDC, and then

estimates AFDC cost avoidance as the product of average monthly savings and total months families did not receive AFDC payments.

c) TANF Spell Duration and Recidivism

To estimate cost avoidance, researchers need to know the likely TANF spell duration of households who would enter TANF if child support were eliminated. Under PRWORA, families can receive assistance through TANF for up to five cumulative years. States have the option to reduce the number of years that families can receive cash assistance through TANF, and states are permitted to exempt up to 20 percent of their caseload from the time limit.

Single parents may leave TANF because (1) their income and/or assets increase (e.g., from working or from child support) so they are no longer eligible, (2) they marry/remarry, (3) their time limit expires, (4) they are sanctioned for non-compliance with requirements, or (5) the costs of continued TANF participation outweigh the benefits.

The median length of time on assistance for current TANF/AFDC cases in FY 1997 was two years (where length of time is counted as time since the most recent case opening). One-third of the families had been receiving cash assistance for one year or less, and one-quarter of the families has been receiving assistance for five or more years. In addition, more than 40 percent of families in TANF in 1997 were known to have participated in the program prior to their most recent case opening.

Blank and Ruggles calculate AFDC spell duration over the period 1985 to 1989 for single mothers. Calculating average spell duration over a given period can be complex because many of the spells are censored.¹⁰ The authors find that spells that are left-censored have an average duration of 15.7 months, while cells that are not left-censored have an average spell duration of 8.1 months. TANF time limits, however, make estimates of welfare spell duration based on AFDC participation obsolete. The methodology used by the authors, though, could be used to estimate spell durations under TANF. The authors estimate a duration model to determine what factors affect spell duration. The model contains the following explanatory variables: demographic and household characteristics (i.e., race, age at start of spell, whether a woman has ever married, total number of children); factors associated with earnings potential and labor supply (i.e., years of education, number of children under age 6, and whether a woman reports a work disability); and household income. Brandon (1995) analyzes short-run AFDC recidivism using an approach similar to that used by Blank and Ruggles. Brandon finds that high variability in child support payments increases the probability of AFDC recidivism.

Cancian and Meyer (1995) find that in Wisconsin an average AFDC case at a given point in time will receive benefits for 83 percent of the next year. Meyer and Dworsky (1997) use this

¹⁰ A censored spell is one when the exact beginning or ending date of the spell is unknown. Censoring might occur if some individuals in the sample were already in AFDC when the data collection process started (known as “left-censoring”), or when some individuals in the sample were still in AFDC when the data collection process ended (known as “right-censoring”).

information to calculate the reduction in TANF expenditures resulting from a policy of mandatory review and adjustment of child support orders.

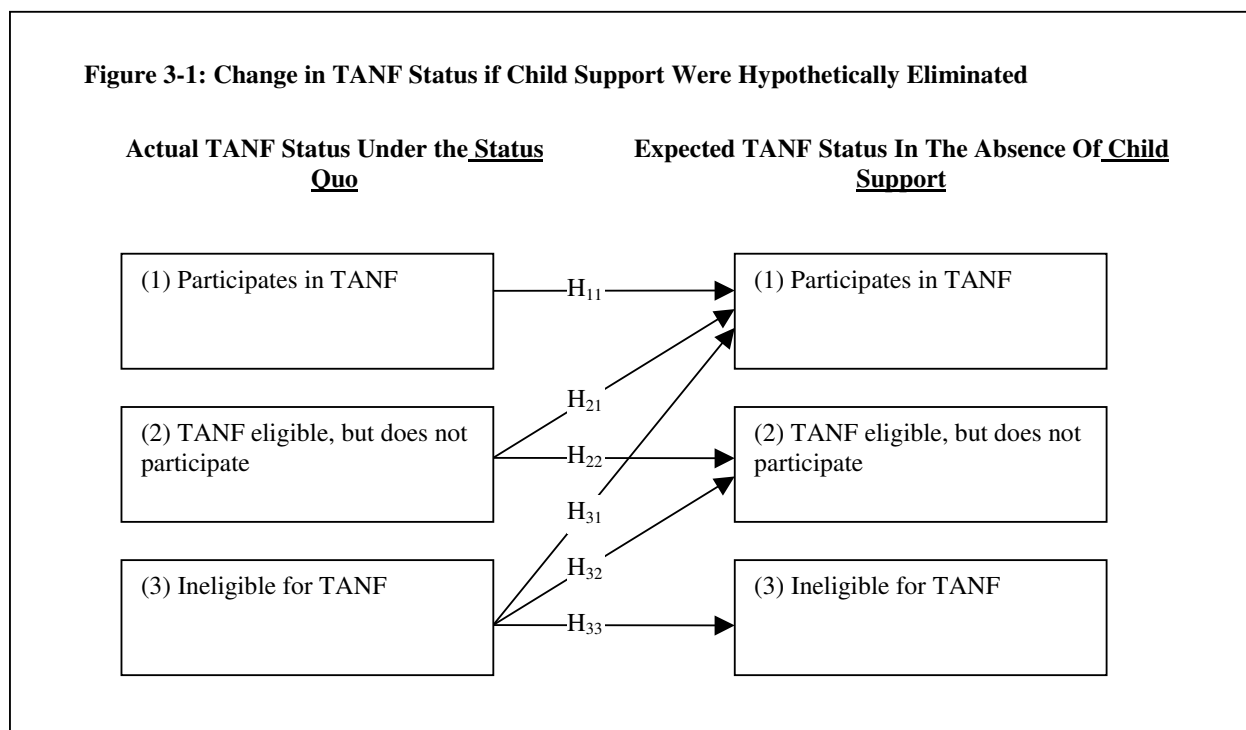
Schexnayder et al. (1998) estimate a multivariate regression model that relates the probability of exit from AFDC to various demographic characteristics and economic circumstances of the custodial household.¹¹ They find that in Texas between 1992 and 1996, a \$100 increase in quarterly child support collections (approximately a 20 percent increase in average collections) induced a 2.5 percentage point increase in the probability of exiting AFDC. In addition, the authors find that custodial parents who completed high school are more likely to exit AFDC during a given quarter than are custodial parents who did not complete high school. They also find, as do other researchers, that custodial parents with a long history of AFDC participation, with more children, with younger children, and that are minorities are less likely to exit AFDC during a given quarter.

d) Calculating TANF Cost Avoidance

In this section, we discuss a model for combining the information on TANF eligibility and participation, TANF award amounts, and TANF spell duration to estimate cost avoidance, including cost recovery. We first categorize custodial households into one of three TANF categories: (1) households participating in TANF, (2) TANF-eligible households who choose not to participate in TANF, and (3) households ineligible for TANF. In **Figure 3-1** we identify the possible avenues of movement from one TANF status to another if child support collections were hypothetically eliminated. Let H_{xy} represent the change in TANF status if child support were hypothetically eliminated, where X indicates the TANF status under the current CSE regime and Y represents the expected TANF status in the absence of child support.

Households will fall into one of six categories describing their expected change in TANF status if child support were hypothetically eliminated: H_{11} , H_{21} , H_{22} , H_{31} , H_{32} , and H_{33} .

¹¹ The approach used by Schexnayder et al. to measure the effect of child support on welfare program dynamics is similar to the approach suggested by Luttrell and Lee (1998) to estimate cost avoidance. However, their approaches differ in three significant ways. First, Schexnayder et al. estimate a series of independent regressions to determine (1) the probability of a child support award being established, (2) the amount of the obligation, (3) the probability of collecting payments, (4) the amount collected, (5) the probability of exit from AFDC, and (6) the probability of return to AFDC. Luttrell and Lee propose to simultaneously estimate these equations. Second, Luttrell and Lee propose to include in their analysis both AFDC cases and non-AFDC cases. Schexnayder et al. include in their analysis only cases in AFDC as of September 1, 1992. Third, Luttrell and Lee propose to include behavioral components in their simultaneous equations model—such as modeling labor supply behavior.

Figure 3-1: Change in TANF Status if Child Support Were Hypothetically Eliminated

- H_{11} : TANF households whose TANF participation status and award amount would not change with the elimination of child support include: (1) households in TANF for which no child support collections are made under the status quo, and (2) households in TANF for which child support is collected but where all collections (minus the pass-through) are retained by the government. All child support collections for this population, minus the pass-through amount, are counted as cost recovery.
- H_{21} : Households that receive child support and are eligible for TANF, but who choose not to participate in TANF under the status quo, may choose to participate in TANF if child support were eliminated. In the absence of child support, the household may be eligible for a higher award amount that would increase the incentive to participate in TANF. For this population, the net benefit of TANF participation (i.e., the TANF award minus child support retained by the government) is sufficient to induce the family to participate in TANF. Cost avoidance for this group is calculated as the amount of the TANF award in the absence of child support.
- H_{22} : TANF eligible households that choose not to participate in TANF under the status quo may continue to not participate in the absence of child support—especially those households that receive little or no child support under the status quo. There is no cost avoidance from this population.
- H_{31} : Households that are ineligible for TANF because of child support may become eligible for TANF (and choose to participate) in the absence of child support. Cost avoidance for this group is calculated as the amount of the TANF award in the absence of child support.

- H_{32} : Households that are ineligible for TANF because of child support may become eligible for TANF (but choose not to participate) in the absence of child support. There is no cost avoidance from this population.
- H_{33} : Some households that are ineligible for TANF under the status quo would continue to be ineligible for TANF if child support were eliminated. There is no cost avoidance from this population.

In summary, H_{21} and H_{31} identify households that would receive increased public assistance through TANF if child support were hypothetically eliminated. Child support collections for a subset of households in H_{11} results in cost recovery. H_{22} , H_{32} , and H_{33} represent households for which there is no cost avoidance.

To produce a general model for calculating TANF cost recovery and cost avoidance (using the more narrow definition where cost avoidance refers to TANF expenditures never realized), let B_{11} , B_{21} and B_{31} represent the monthly TANF award, if child support were eliminated, for households of type H_{11} , H_{21} and H_{31} , respectively. Furthermore, let T_{11} , T_{21} and T_{31} represent the expected number of months on TANF during the year for the H_{11} , H_{21} and H_{31} households. Let C_{11} and P_{11} represent the amount of child support collected and the pass-through amount, respectively, for households in H_{11} . TANF cost recovery is calculated by aggregating total child support collected, minus the pass-through amount, for population H_{11} (Equation 3-1). TANF cost avoidance due to program ineligibility or non-participation is calculated by summing the TANF awards that would occur if child support were eliminated over all new households that would participate in TANF if child support were eliminated (Equation 3-2).

Equation 3-1

$$\text{TANF Cost Recovery} = \left(\sum_{H_{11}} (C_{11} - R_{11}) \times T_{11} \right)$$

Equation 3-2

$$\text{TANF Cost Avoidance} = \left(\sum_{H_{21}} B_{21} \times T_{21} \right) + \left(\sum_{H_{31}} B_{31} \times T_{31} \right)$$

In summary, to calculate TANF cost recovery and cost avoidance one would first simulate the probability of participating in TANF under the status quo and under the hypothetical scenario where child support is eliminated to identify households in populations H_{11} , H_{21} and H_{31} . To calculate TANF cost recovery one would estimate the amount of child support retained by the government for each household in population H_{11} , and then aggregate this amount across all households in population H_{11} . To estimate cost avoidance due to program ineligibility or non-participation one would first calculate the monthly TANF award amounts and number of months

in TANF during the year for households in populations H_{21} and H_{31} . Then, one would aggregate household TANF awards over all the households in populations H_{21} and H_{31} .

If aggregate level data were used instead of household level data, then TANF cost recovery and cost avoidance would be calculated:

Equation 3-3

$$\text{TANF Cost Recovery} = H_{11} \times \bar{T}_{11} (\bar{C}_{11} - \bar{P}_{11}),$$

Equation 3-4

$$\text{TANF Cost Avoidance} = (H_{21} \times \bar{B}_{21} \times \bar{T}_{21}) + (H_{31} \times \bar{B}_{31} \times \bar{T}_{31})$$

where H_{11} , H_{21} and H_{31} are the total number of households whose TANF status would change (as described in figure 3-1); $\bar{C}_{11}$ and $\bar{P}_{11}$ are average collections and average pass-through amount, respectively, for H_{11} households; $\bar{B}_{21}$ and $\bar{B}_{31}$ are the average monthly TANF awards for H_{21} and H_{31} households; and $\bar{T}_{11}$, $\bar{T}_{21}$ and $\bar{T}_{31}$ are the average number of months on TANF during the year for the three populations.

2. Food Stamp Cost Avoidance

Appropriations for the Food Stamp Program totaled more than \$25 billion in FY 1998. During the first few months of FY 1998, the Food Stamp Program provided assistance to approximately 20 million people each month. Many recipients were members of custodial households that either received child support or had child support orders. Consequently, the receipt of child support has important cost avoidance implications for the Food Stamp Program.

The approach used to estimate Food Stamp cost avoidance is similar to that used to estimate TANF cost avoidance. However, unlike TANF, there is no cost recovery with Food Stamps. In addition, program participation rates, awards levels, and spell duration differ between the two programs. To determine Food Stamp cost avoidance one must determine the impact of child support on participation in the Food Stamp Program, calculate the change in food stamp allotments attributed to child support collections, and determine the amount of time that households would participate in the Food Stamp Program if child support was eliminated. As with TANF cost avoidance, the methodology used to estimate Food Stamp cost avoidance compares two child support enforcement scenarios—the status quo versus the absence of child support. As discussed previously, the difference in Food Stamp Program expenditures between these two child support enforcement scenarios (i.e., Food Stamp cost avoidance) overestimates cost avoidance attributed to the IV-D program because some child support collections still would occur in the absence of the IV-D program.

a) Food Stamp Program Eligibility and Participation

A national set of regulations governs eligibility and award amounts for the Food Stamp Program. All TANF families are income-eligible for food stamps unless they are part of a larger household that does not meet the income-eligibility requirements. Over 85 percent of TANF/AFDC families receive food stamp assistance.

Not all households eligible for food stamps apply for the benefit. AS/SRA estimated that 75 percent of program-eligible custodial households applied during the years covered by their study (1983-84). The authors obtain this estimate by dividing the number of households in their sample that apply for benefits by the number that are eligible. The most promising approach to identifying which eligible households would apply for food stamps is to estimate a probability model that relates the probability of applying for food stamps to the level of expected benefits and other household characteristics (e.g., following the approach used in the Urban Institute's TRIM2 model). The decision to participate in the Food Stamp Program is likely related to the probability of participating in TANF and Medicaid. Households that choose not to participate in one welfare program, despite eligibility for the program, are likely to choose not to participate in other welfare programs for which they are eligible. Consequently, the probability of participating in TANF and Medicaid could be factors used to predict the probability of participating in the Food Stamp Program.¹²

Blank and Ruggles estimate a probability model to identify factors that are correlated with the decision of single mothers to participate in the Food Stamp Program. Like their TANF analysis, the authors find that women who are eligible but tend not to participate in the Food Stamp Program are older, white, less likely to be disabled, have fewer children, and have more education than their counterparts who do apply for the program. The authors find that single mothers applied for and received food stamps for approximately 60 to 70 percent of total months for which they were eligible. Single mothers with long spells of eligibility were more likely to apply for food stamps than were single mothers with short spells of eligibility.

Wheaton and Sorensen estimate (using TRIM2) that if no child support were paid in 1989, then the number of food stamp recipients would have been three percent higher.

b) Food Stamp Award Amounts

To calculate the change in food stamp allotments if child support were hypothetically eliminated, each household's income and assets should be compared against the Food Stamp Program eligibility requirements and allotment guidelines. Child support income retained by the household is included in total household income used to calculate Food Stamp awards. For households in TANF, only the \$50 pass-through (if applicable) is included in total household income. For every extra dollar in income (including the TANF pass-through amount), food stamps are reduced by approximately \$0.30. The average monthly food stamp allotment in FY 1997 was approximately \$71 per person.

¹² Because eligibility criteria differ for TANF, Food Stamps, and Medicaid, participation in Food Stamps does not necessarily indicate the family will be eligible for and participate in TANF.

c) Food Stamp Spell Duration and Recidivism

Child support makes some custodial households ineligible for food stamps. In addition, the food stamp allotment is reduced for households that remain program-eligible despite receiving child support (or the TANF pass-through). The length of time that custodial households would receive food stamps, if not for child support, is an important factor in estimating Food Stamp cost avoidance. There is little published information on Food Stamp Program spell duration and recidivism. However, spell duration and recidivism are likely highly correlated with TANF spell duration and recidivism with two exceptions. First, households can be eligible for food stamps even if they are not eligible for TANF; and second, the five-year time limit for TANF does not apply to the Food Stamp Program.

d) Calculating Food Stamp Cost Avoidance

The methodology to calculate Food Stamp cost avoidance is similar to that used to estimate TANF cost avoidance. Food stamp cost avoidance is calculated by identifying those households who would remain in the Food Stamp Program but would receive higher food stamp allotments in the absence of child support ($\hat{H}_{11}$), Food Stamp Program-eligible households that currently do not participate in the program but that would in the absence of child support ($\hat{H}_{21}$), and households currently not eligible for Food Stamps that would become eligible (and would participate) in the absence of child support ($\hat{H}_{31}$). Let $\hat{B}_{11}$, $\hat{B}_{21}$, and $\hat{B}_{31}$ represent the expected increase in food stamp allotments for the three types of households under the hypothetical scenario where child support is eliminated, and let $\hat{T}_{11}$, $\hat{T}_{21}$, and $\hat{T}_{31}$ represent the expected number of months in a year that these households would receive food stamps in the absence of child support. This information is combined to calculate Food Stamp cost avoidance as shown in Equation 3-5.

Equation 3-5

$$\text{Food Stamps Cost Avoidance} = \left(\sum_{\hat{H}_{11}} \hat{B}_{11} \times \hat{T}_{11} \right) + \left(\sum_{\hat{H}_{21}} \hat{B}_{21} \times \hat{T}_{21} \right) + \left(\sum_{\hat{H}_{31}} \hat{B}_{31} \times \hat{T}_{31} \right)$$

If household level data were not available, then aggregate level data could be used as in Equation 3-4. If household level data were available in state administrative files for households participating in the Food Stamp Program and aggregate level data were available for households not in the program, then the data could be combined using the following formula:

Equation 3-6

$$\text{FoodStampsCost Avoidance} = \left(\sum_{\hat{H}_{11}} \hat{B}_{11} \times \hat{T}_{11} \right) + \left(\bar{\hat{H}}_{21} \times \bar{\hat{B}}_{21} \times \bar{\hat{T}}_{21} \right) + \left(\bar{\hat{H}}_{31} \times \bar{\hat{B}}_{31} \times \bar{\hat{T}}_{31} \right),$$

where $\bar{H}_{21}$, $\bar{H}_{31}$, $\bar{B}_{21}$, $\bar{B}_{31}$, $\bar{T}_{21}$, and $\bar{T}_{31}$ are analogous to $\bar{H}_{21}$, $\bar{H}_{31}$, $\bar{B}_{21}$, $\bar{B}_{31}$, $\bar{T}_{21}$, and $\bar{T}_{31}$ (used to describe TANF cost avoidance). Note that $\bar{B}_{11}$ is approximately 0.3 times the amount of the TANF pass through for households in TANF.

3. Medicaid Cost Avoidance

The IV-D program can reduce Medicaid expenditures in two ways. First, child support may raise a custodial household's income above the Medicaid eligibility limit. Second, custodial households may receive a medical support order that requires the non-custodial parent to provide health insurance for their children, if possible. If a child has a medical support order and still qualifies for Medicaid, then the private insurer becomes the primary healthcare payer for the child, and Medicaid becomes the secondary payer. The relationship is more complicated in Medicaid managed care programs because the managed care organization, not Medicaid, receives any reimbursement received from the private insurer.

a) Medicaid Eligibility and Participation

States have some discretion over Medicaid eligibility requirements. However, to receive federal funding states are required to provide Medicaid benefits to selected groups of individuals, including (1) TANF recipients, (2) children under age six in households that meet the TANF financial eligibility criteria or whose incomes are at or below 133 percent of the federal poverty level, (3) children under age 19 whose household income is at or below the federal poverty level, (4) children under age 21 who meet the income and financial resource criteria for TANF eligibility, and (5) other special protected or "medically needy" groups.

The impact of child support on Medicaid eligibility can be determined mechanistically by applying Medicaid eligibility requirements. However, not all Medicaid-eligible persons apply for Medicaid. AS/SRA obtain a simple estimate of Medicaid participation by dividing the number of participating individuals by the number of eligible individuals. They estimate that 72 percent of Medicaid-eligible parents and 75 percent of Medicaid eligible children applied for Medicaid during the period covered by their study. The data from this study, unfortunately, are old and cover the period 1983-84. A more accurate measure of the probability of Medicaid participation can be obtained for each household by estimating a regression model that relates the characteristics of the household (or individual) to the probability of applying (similar to the approach described previously to estimate program participation for TANF and Food Stamps).

In the Urban Institute's TRIM2, all individuals simulated to receive cash assistance through TANF/AFDC are simulated to enroll in Medicaid. For persons who are simulated to not participate in TANF/AFDC but who are eligible for Medicaid, the probability of enrollment in Medicaid is a function of the state of residence, type of eligibility (e.g., child, adult, disabled, or aged), and various household characteristics. Enrollment decisions are assumed to be made on a family basis, so all Medicaid-eligible individuals in a family are assumed to make the same decision regarding whether to enroll in Medicaid. Wheaton and Sorensen (using TRIM2) estimate that if no child support had been paid in 1989, then Medicaid enrollment would have increased by one percent.

The probability that a child obtains private medical insurance coverage through a medical support order should be estimated. This probability varies substantially by the characteristics of the custodial parent. For example, in 1993 approximately 60 percent of child support awards included a medical support order (see the 1998 Green Book, Table 8-8). In addition, approximately 69 percent of custodial cases headed by divorced mothers had a medical support order, while only 40 percent of custodial cases headed by never-married mothers had a medical support order. The probability that a custodial mother had a medical support order is greater for whites, older women, women with more formal schooling, and women with fewer children. Many non-custodial parents do not provide medical insurance, despite having a medical support order, although there is also evidence that some non-custodial parents provide healthcare coverage even though there is no requirement to do so. New York estimates that in FY 1997-98, only 19 percent of children with a medical support order had access to private medical insurance through the non-custodial parent.¹³

b) Medicaid Costs

Unlike the TANF and Food Stamp programs, Medicaid benefits do not decline as household income rises so long as the person meets the eligibility criteria for Medicaid. That is, all individuals enrolled in Medicaid qualify for the same package of benefits. Consequently, most studies use published statistics on average Medicaid expenditures per child and per adult to calculate Medicaid cost avoidance.

AS/SRA use the average annual Medicaid cost for all parents in Medicaid and the average cost per child in Medicaid to calculate Medicaid cost avoidance. Texas uses monthly, Medicaid managed care premiums for adults and children on AFDC. In Texas, these premiums were \$141.88 per parent and \$57.51 per child in 1997.

At the national level, Medicaid medical vendor payments on behalf of approximately 19.6 million child Medicaid enrollees in FY 1997 totaled nearly \$15.7 billion (or \$797 per child). Medicaid paid medical vendors a total of nearly \$4.8 billion in FY 1997 (or \$774 per child) on behalf of 6.2 million children who were Medicaid recipients on the basis of poverty. Medicaid medical vendor payments totaled over \$3.1 billion in FY 1997 (or \$1,806 per adult) for 1.7 million adults who were enrolled in Medicaid on the basis of poverty.

Researchers should use caution, however, when using average per capita expenditures to estimate Medicaid cost avoidance. Medicaid covers a diverse population of participants who are eligible for Medicaid for either financial or health reasons. Disproportionate shares of Medicaid payments are made on behalf of a small group of Medicaid enrollees who are eligible for Medicaid because of poor health. Thus, average per capita Medicaid expenses for children and parents who would enroll in Medicaid only in the absence of child support could be different than the Medicaid average.

In addition, Medicaid cost avoidance per child and per parent will vary by state. Within broad federal guidelines and certain limitations, states determine the amount and duration of services

¹³ This estimate is based on discussions with representatives from New York's IV-D and Medicaid programs.

offered under their Medicaid programs. States may limit, for example, the number of days of hospital care or the number of physician visits covered as long as limits allow a sufficient level of services to reasonably achieve the purpose of the benefits and the limits do not discriminate among beneficiaries based on medical diagnosis or condition. Furthermore, medical costs will vary state to state because (1) the cost of health care services varies by locality, (2) each state negotiates different payment rates with hospitals and physicians, and (3) the proportion of Medicaid recipients in Medicaid managed care varies by state.

The Urban Institute's TRIM2 uses a different approach to estimate Medicaid costs avoided. Their approach uses Medicaid claims data to estimate a series of regression equations that predict Medicaid costs for each individual who enrolls in Medicaid. The explanatory variables in the models include enrollees' sex, race, age, number of months eligible for Medicaid during the year, rural or urban place of residence, receipt of TANF/AFDC or SSI benefits, whether eligible for Medicaid under the medically needy program, whether the individual is a head of family or a dependent, and whether eligible for both Medicaid and Medicare.

c) Medicaid Spell Duration and Recidivism

Medicaid spell duration is likely greater than TANF spell duration. If a family loses Medicaid eligibility due to collection of child support, the family is eligible for transitional Medicaid assistance for four months (although several states have elected to provide transitional Medicaid assistance for more than four months). Texas (1997) notes that Medicaid eligibility is independent of AFDC eligibility, and that households tend to remain on Medicaid longer than on AFDC.

d) Calculating Medicaid Cost Avoidance

The first step to calculate Medicaid cost avoidance is to identify families and individuals who would become eligible for Medicaid only if existing child support payments were eliminated. The next step is to determine the probability that each of the newly eligible households would enroll in Medicaid under this hypothetical scenario. To estimate Medicaid cost avoidance, one also needs to know the expected Medicaid spell length for individuals who would enroll in Medicaid if child support were eliminated and the expected cost to the government of health care expenditures on behalf of these households.

Medicaid costs avoided for each household that would become eligible for and participate in Medicaid if child support were hypothetically eliminated is the product of expected monthly medical costs (M) and expected time (T) enrolled in Medicaid enrollment during the year (in months). Medicaid costs avoided should be calculated both for custodial parents (P) and their children (C). Included in the measure of Medicaid savings attributed to child support enforcement is Medicaid costs recovered due to medical support orders.

If person level data is available (e.g., from hospital claims data), then Medicaid cost avoidance could be calculated for each individual and then aggregated. In general, such data will not be available and program averages will be used. The following equations can be used to estimate Medicaid cost avoidance. Cost avoidance should be calculated separately for children and custodial parents.

Equation 3-7

$$\text{MedicaidCost Avoidance(children)} = (C \times M_C \times T_C) + (S \times M'_C \times T'_C)$$

Equation 3-8

$$\text{MedicaidCost Avoidance(custodial parent)} = P \times M_P \times T_P$$

In these equations, C is the number of children who are made ineligible for Medicaid because they receive child support; S is the number of children who are enrolled in Medicaid and who receive medical insurance from a non-custodial parent; P is the number of custodial parents made ineligible for Medicaid because of child support. The variables M_C , M'_C and M_P are the expected average monthly Medicare costs (or Medicaid managed care premiums), respectively, for (1) children made ineligible for Medicaid because they receive child support, (2) children who receive medical insurance from a non-custodial parent, and (3) custodial parents made ineligible for Medicaid because of child support. The variables T_C , T'_C and T_P are the expected number of months during the year that the three groups of people—i.e., children made ineligible for Medicaid because of child support, Medicaid enrollees with health insurance from a non-custodial parent, and custodial parents made ineligible for Medicaid because of child support—are expected to be enrolled in Medicaid.

D. Empirical Findings

Several studies present estimates of cost avoidance (see Table 3-4). Unfortunately, differences in methodology, populations analyzed, and assumptions by the authors make the estimates difficult to compare and limit the ability to generalize results. Also, some studies suffered from numerous data limitations and methodological problems, so the estimates come with numerous caveats and should be interpreted with caution. Furthermore, changes in the Medicaid program make many of the findings irrelevant.

Wheaton and Sorensen (1998) estimate that child support collections result in approximately \$396 (in 1996 dollars) in annual cost avoidance per child support case. Texas (1997) estimates that child support collections resulted in cost avoidance of approximately \$387 to \$907 (in 1996 dollars) per child support case in Texas. The estimates from both studies count cost avoidance (and AFDC cost recovery) for AFDC, Food Stamps, and Medicaid. Temple et al. estimate that child support results in an average \$205 reduction in AFDC costs for all custodial households, not just those eligible for AFDC. A more detailed discussion of the findings and the limitations of each study are provided in the annotated bibliography.

Table 3-4 Pre-TANF Estimates of Child Support Cost Avoidance (in 1996 dollars)

Study	Population Analyzed	Average Annual Cost Avoidance Per Child Support Case			
		AFDC	Food Stamps	Medicaid	Total
Temple et al. (1986) 1983 data	AFDC cases	\$271	\$148	\$98	\$517
	Non-AFDC cases	\$124	\$63	\$47	\$234
	All cases	\$205	\$109	\$76	\$390
MAXIMUS (1983) 1982 data	Non-AFDC cases	NA	NA	NA	\$424-\$724
AS & SRA (1987) 1983 data	Non-AFDC cases	\$ 3,035 ¹	\$ 1,398 ¹	\$ 788 ¹	NA
Texas (1997) 1996 data	All cases in Texas	\$233 -\$473 ²	\$68 - \$210	\$85 - \$224	\$ 387 - \$907 ²
Wheaton and Sorensen (1998) 1989 data	All cases in the U.S.	\$238.09 ²	\$71.43	\$23.81	\$333.33 ²

¹ Cost avoidance per client receiving that particular benefit.

² Includes AFDC cost recovery.

Many of the studies we reviewed calculate the impact of proposed IV-D program activities on avoiding future welfare program expenditures. Overall, these studies support the notion that cost avoidance for the AFDC/TANF program would be modest, with more of the effect resulting from cost recoupment than from an actual decrease in program participation. Casebolt and Klawitter (1990) conclude that IV-D program activities that focus solely on child support collection will result in little cost avoidance because the child support awards to families receiving public assistance are generally quite small. McDonald, Moran, and Garfinkel (1983) estimate that if Wisconsin were able to collect 100 percent of child support owed by fathers whose children were receiving AFDC benefits, AFDC participation would only fall by approximately two percent and AFDC program expenditures would fall by approximately seven percent. Robins (1986) estimates that 100 percent collection of child support obligations nationally would have no impact on AFDC participation rates, but would cause an eight- percent decline in AFDC expenditures. Bergmann and Roberts (1987) estimate that complete collection of child support would cause AFDC rolls to fall by approximately 6.1 percent and AFDC expenditures to fall by approximately 9.7 percent.

Klawitter and Garfinkel (1992) find that routine income withholding for child support increases the collection of child support obligations by between 11 and 30 percent. However, they find no discernable impact on AFDC participation rates. The majority of collections would benefit custodial families not receiving public assistance, so the impact on AFDC participation and costs would be modest. However, they find that if routine withholding were used in combination with policies that increased the proportion of custodial households with support awards and increased the amount of awards, then routine withholding could result in a large decrease in AFDC participation and costs.

Sorensen and Wheaton (1994) estimate that if child support were collected from delinquent parents, then participation in the AFDC, Food Stamp, and Medicaid programs would fall by six percent, four percent, and three percent, respectively. Program expenditures would fall by 20 percent, 10 percent, and two percent, respectively.

Sorensen and Wheaton find that for *each dollar in child support collected* in the U.S., public welfare expenditures fall by just five cents. AS/SRA find that for *each dollar in child support on behalf of children in the IV-D program but not on AFDC*, public welfare expenditures fall by 20 cents.

E. Limitations of the Existing Cost Avoidance Literature

The existing cost avoidance literature as a whole is of limited use to policymakers and IV-D program administrators. The major limitation is that much of the literature is dated. Many of the studies use pre-1990 data, and significant changes in IV-D program activities, welfare programs, demographics, and social and economic conditions make much of the empirical findings obsolete. Below, we list the limitations of the existing cost avoidance literature. Many of the limitations are a direct result of data limitations.

- **Changes to public assistance programs.** The replacement of AFDC with TANF, changes in Medicaid and Food Stamp eligibility, creation of the Children's Health Insurance Program (CHIP), and other changes to public assistance programs have made many of the empirical findings in the literature obsolete. For example, estimates of the relationship between program eligibility and program participation may no longer be valid.
- **Changes in socioeconomic conditions.** The U.S. has experienced nearly a decade of solid economic growth. Good economic conditions, in general, contribute to increased child support collections (due to improved employment opportunities of non-custodial parents) and a decrease in the number of households receiving public assistance. Estimates of the relationship between child support collections and cost avoidance, between welfare program eligibility and program participation, and between child support collection efforts and labor supply likely are sensitive to economic conditions.
- **Methodological concerns about attributing all child support collections to the IV-D program.** The methodology used in the cost avoidance literature attributes all child support collections to the IV-D program. However, some child support would be collected in the absence of the IV-D program so the current studies potentially overestimate cost avoidance attributed to the IV-D program. The difficult issue here is to determine what child support would still be collected in the absence of a child support enforcement program.
- **Exclusion of relevant populations.** Data limitations may result in the exclusion of relevant populations from the analyses of cost avoidance. For example, data limitations allowed MAXIMUS to estimate cost avoidance for only non-AFDC cases. In addition, data limitations prevented the authors from examining Medicaid cost avoidance. Data limitations prevented AS/SRA from including in their AFDC cost avoidance estimate custodial parents who had remarried. (However, this omission likely has a minimal impact on AFDC cost avoidance.) Studies that use only IV-D program case files as the basis for their analysis are

not able to capture any impact of child support enforcement on the non-IV-D population. One benefit of national survey data (e.g., CPS and SIPP) is that the analysis population includes households not currently enrolled in IV-D programs but who could potentially enroll in the program and/or receive public assistance.

- **Public assistance programs analyzed for cost avoidance.** Cost avoidance studies have looked only at savings to three programs: AFDC (now TANF), Food Stamps, and Medicaid. Although the majority of cost avoidance likely consists of savings to these programs, other means-tested programs also benefit from IV-D program activities—e.g., Supplemental Security Income (SSI), Low-Income Housing Assistance, School Lunch Program, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Child Health Insurance Program (CHIP), etceteras. Combined expenditures on these smaller programs are substantial, and not counting child support cost avoidance to these programs could underestimate total cost avoidance.
- **Program administration expenses.** Few studies estimate the expected impact of IV-D program activities on program administrative expenses. Sorensen and Wheaton (1994) and CBO (1996a) are two of the exceptions. Program administrative expenses would decline if fewer households were dependent on welfare. The cost of program administration can be substantial. During the past decade, annual program administration costs for AFDC and Food Stamps have ranged from 13 percent to 20 percent of public assistance benefits paid out by the two programs.
- **Behavioral impacts of child support enforcement and child support.** Child support enforcement and receipt of child support may affect the behavior of parents regarding marital dissolution, child bearing, remarriage, and labor force participation. Few studies address the hypothesized behavioral impacts of child support enforcement and child support on cost avoidance. We discuss this topic in more detail in Chapter 6.
- **Lack of sufficient detail to evaluate and duplicate methodology.** Some of the studies lacked sufficient detail to evaluate the methodology used to estimate cost avoidance.
- **Small sample size.** Many of the studies are based on relatively small samples. For example, the Washington study is based on only 91 usable surveys. The MAXIMUS cost avoidance estimates are, for the most part, based on fewer than 700 observations from three counties. The small sample sizes and small number of communities analyzed reduces the reliability of the empirical findings and the ability to generalize the results from the sample to the population. Although national surveys such as CPS and SIPP may be used to estimate national cost avoidance estimates, the small number of custodial households in any given state limits their usefulness for making state level estimates.
- **Incomplete data.** Incomplete data are of three types: (1) missing data from incomplete surveys and case files, (2) the absence of key variables (e.g., such as child support information or income and asset information needed to determine eligibility for means-tested programs), and (3) data not collected for a relevant population (e.g., households that have never participated in the IV-D program). In the CPS, missing or suspect data are often imputed, which can caused biased estimates of parameters. Several of the studies we

reviewed mentioned the unreliability of data obtained through IV-D program client surveys and case files.

- **Lack of longitudinal data.** Intermittent welfare participation caused by variable income and asset levels suggests that for estimating cost avoidance longitudinal data sets containing monthly data are superior to data sets that are not longitudinal and that do not contain monthly data. Accurate estimation of cost avoidance requires detailed household level data on income, assets, living arrangement, and household demographics. IV-D program case files sometimes contain this information, but only for one point in time (generally at case opening). The CPS provides a snapshot picture of a household's economic situation at one point in time. In addition, the CPS collects annual data, which limits the researcher's ability to track a household's economic situation month to month. SIPP tracks individual households on a monthly basis over a period of several years. This allows researchers to determine how child support levels and variability of payments affect welfare dependency and benefits on a monthly basis.

F. Summary

Our review of the literature suggests two main conclusions. First, significant improvements in the methodology for calculating cost avoidance have been made during the past decade. This is due to the greater availability of data for measuring cost avoidance, the decision to increase the amount of resources directed at measuring cost avoidance, and improvements in the theory of how child support enforcement affects cost avoidance. Second, recent and significant changes in government programs and policies, in society, and in the economy make much of the literature on cost avoidance obsolete.

An accurate estimate of cost avoidance requires a complex set of algorithms to capture the short-term and long-term impact of child support collections and IV-D program activities on government outlays for public assistance. To estimate cost avoidance, one must determine the effect of child support on welfare eligibility and participation, level of benefits awarded, and expected welfare spell duration. In addition, child support and IV-D program activities may affect the behavior of both custodial and non-custodial parents. IV-D program activities and the receipt of child support may affect marital decisions (i.e., the decision to marry, remarry, or divorce), childbearing decisions, the decision to participate in the labor force, and the decision to apply for public assistance.

The majority of the studies we reviewed provide some information that is relevant to estimate cost avoidance; however, none of the studies are as comprehensive as one would desire. Often the lack of data on specific populations prevented the authors from analyzing the impact of child support on that population. In addition, some of the studies have methodological problems. None of the major cost avoidance studies that we reviewed explored the cost avoidance implications of possible behavioral changes caused by child support enforcement or the receipt of child support.

4. STUDIES OF COMPLIANCE WITH CHILD SUPPORT ORDERS

This chapter synthesizes the literature on child support compliance. These studies focus on four important issues: (1) compliance patterns and changes in compliance over time; (2) differences in compliance behavior between different populations; (3) reasons non-custodial parents comply, or fail to comply, with support orders; and (4) the effect of IV-D program policies on compliance. These issues are important to the topic of cost avoidance because research in these areas allows policymakers, program directors, and researchers to better understand how child support enforcement affects child support payments. Such information is important for evaluating existing IV-D program activities and policies, formulating new programs and policies, and directing scarce resources to areas where they will have the greatest marginal impact on the desired outcome (e.g., increased child support and decreased public expenditures).

We first discuss the theory of why non-custodial parents comply with child support orders and present the methodology used in the literature to test various hypotheses. Next, we present the empirical findings in the literature and discuss their implications for child support policy and cost avoidance. We conclude this chapter by addressing areas for future research. In the annotated bibliography section of this report, we provide additional information on the data, methodology, and generalizability of three studies on child support compliance:

- “Patterns of Child Support Compliance in Wisconsin,” (Meyer and Bartfeld, 1997);
- “Enforcing Divorce Settlements: Evidence from Child Support Compliance and Award Modifications,” (Peters et al., 1993); and
- “The Relationship between Child Support Enforcement Tools and Child Support Outcomes” (Garfinkel and Robins, 1994).

A. Theory

The desire of non-custodial parents to maintain a relationship with their children, ability to pay, and state IV-D program policies all affect compliance with support orders. Non-custodial parents may have a strong attachment to their children and desire to maintain a good relationship with their children following a divorce or separation. Voluntary payment of child support is one mechanism that the non-custodial parent can use to maintain this relationship. Payment may be voluntary because the non-custodial parent cares for the welfare of the child or believes the child will see voluntary payment as a demonstration of parental affection. Alternatively, custodial parents may use payment of child support as a condition for visitation. Information on the level of child support that would be paid voluntarily (i.e., in the absence of the IV-D program) would allow researchers to better calculate cost avoidance attributed to the IV-D program.

Noncompliance with support orders often results from lack of ability to pay. Reasons include low earnings, incarceration, or multiple support obligations of non-custodial parents. The cost avoidance implications are that IV-D program activities targeted to certain populations (e.g., teenage fathers or unwed mothers) may be ineffective unless coupled with skills training programs and/or reasonable methods to modify orders when circumstances change.

Government enforcement is sometimes required to encourage compliance. Increased enforcement activities have often been credited as a major reason for the increase in child support collections during the past two decades. One cost avoidance implication is that IV-D program activities may have a deterrent effect on non-custodial parents of children not in the IV-D program who might otherwise not comply with a support order.

B. Data and Methodology

Child support compliance has been analyzed using both case level data and aggregate level (e.g., state level) data. Case level data are often obtained from IV-D program case records, from divorce decrees, and from welfare program records. Researchers can empirically estimate the relationship between child support compliance and the characteristics of the custodial household, the characteristics of the non-custodial parent, and other factors.

Many researchers take advantage of variation in IV-D program activities across states and over time to analyze the relationship between these activities and the establishment of and compliance with child support orders. Such studies typically estimate a multivariate statistical model using aggregated, annual, state level data. Variation in IV-D program activities across localities and over time allows the researcher to determine the relationship between outcome variables (such as the proportion of cases with child support orders or the level of compliance with support orders) and explanatory variables (such as indicators of specific IV-D program activities, IV-D program expenditures, and demographic and economic factors in the locality).

C. Empirical Findings

Compliance with child support orders is correlated with the characteristics of non-custodial fathers. Meyer and Bartfeld (1997) examined child support cases in Wisconsin and found that compliance is higher for divorced fathers than for never-married fathers. Divorced fathers were more likely than never-married fathers to pay during the initial year following a support order. Furthermore, although compliance rates for both never-married fathers and divorced fathers declined over time, compliance rates remained higher for divorced fathers over time. Also, compliance in the initial year a support order is established is indicative of future compliance.

Compliance is positively related to the level of child support enforcement activity across states and over time. For example, the provision of wage withholding is associated with an increased likelihood of obtaining a child support award and increased collection rates. Publicizing IV-D services, allowing paternity to be established until age 18, and making payments through an agency also increased the probability of having an award.

Schexnayder et al. (1998) used a multivariate regression approach to determine what factors increase the probability of support payments. They find that earnings of non-custodial parents is the most important predictor of compliance with support orders, and the probability of collections increased by 0.81 percentage points for every \$100 increase in quarterly earnings. Other statistically significant factors associated with an increase in the probability of support payments include (1) a measure of the cumulative effort by the IV-D program to process child support cases, (2) age of the non-custodial parent, (3) non-custodial parent being Hispanic, and (4) one or more children being born out of wedlock. The latter two factors, Hispanic and child

born out of wedlock, have a very small effect and contradict the findings of other studies. Factors associated with a statistically significant decrease in the likelihood of support payments are (1) the non-custodial parent being black, (2) the custodial household having multiple child support cases, (3) the number of children in the custodial household, and (4) age of the youngest child.

Lin (1997) finds that compliance with support orders increases when non-custodial fathers perceive that the amount of child support they pay is fair. Peters et al. (1993) find that 15 to 30 percent of divorced parents made informal modifications to the financial terms of their divorce settlement. Changes in economic and custodial circumstances increase the likelihood that parents will make modifications. Remarriage was not significantly related to modifications to child support payments.

D. Implications for Child Support Policy and Cost Avoidance

IV-D program activities are designed to directly affect the payment of child support for clients in the IV-D system and to act as a deterrent for households outside of the IV-D system. The empirical evidence that we examined shows that some IV-D program activities may lead to increased child support collections (Garfinkel, 1993). Unfortunately, it may be too early to determine which child support enforcement tools may be the most cost-effective in targeting different groups of non-custodial parents. Garfinkel's study on child support enforcement tools and outcomes, for example, is exploratory and does not provide sufficient detail to determine which tools are most cost effective. Garfinkel finds that increases in child support collections benefit mainly those custodial households that are already receiving some child support. The answer to why increased collections are coming disproportionately from non-custodial parents already paying some support is unclear. Possible explanations are that a disproportionate amount of child support enforcement resources are targeted at this population of non-custodial parents, IV-D program activities may be more effective for this population of non-custodial parents, or this population may have a greater ability to pay child support. However, there is evidence that state child support enforcement efforts are not effective at maintaining consistent or increasing compliance among one group of non-custodial parents—never-married fathers (Bartfeld, 1997).

E. Areas for Future Research

The research completed to date focuses on the marginal impact of changing one or more policies on child support collected. Additional research is needed to determine the overall effect of the IV-D program on collections and the associated reductions in public assistance expenditures. To meet the needs of policymakers and program administrators additional research is needed on the effectiveness and cost efficiency of specific IV-D program activities and tools regarding compliance with child support awards. In addition, additional research is needed to determine the deterrent effect of IV-D program activities on households outside the IV-D program.

Bartfeld et al. (1997) suggest that further research should focus on the underlying reasons for noncompliance, particularly among never-married fathers. More research is required to determine whether the low compliance rates among never-married fathers is related to the father's level of involvement with his children or his ability to pay child support.

5. STUDIES OF CHILD SUPPORT REVIEW AND ADJUSTMENT

A. Background

The Family Support Act of 1988 (PL 100-485) required states to implement procedures for the periodic review and modification of child support orders involving children in the IV-D system. This part of the Act was designed to improve the historically low frequency by which child support orders were updated, an improvement that was anticipated to increase support for children and lower the cost of public assistance programs. The Act authorized four state demonstrations designed to evaluate the procedures and techniques that would potentially be used to review support orders nationwide.

Four states participated in the demonstration: Colorado, Delaware, Florida, and Illinois. Each state reviewed child support cases that had not been reviewed for at least three years. In all states but Florida, the number of staff devoted to child support enforcement was expanded to meet the increased workload associated with the review and modification of old cases. Each state in the demonstration used slightly different procedures to identify cases for review and to modify support orders.¹⁴

We present the results from two studies that evaluated these demonstrations, as well as an investigation of a third study of a review and adjustment effort that occurred one year prior to the Family Support Act. The first study, by Caliber Associates (Bishop, 1992), evaluates each of the four demonstration projects and discusses the potential for cost avoidance. The second study, by Policy Studies, Inc. (1991), focuses on issues related to the implementation of the Delaware demonstration. Finally, we note, where appropriate, findings from Price et. al. (1991) that provide information from Oregon comparable to that found in the aforementioned reports. These three reports focus on two topics: (1) issues related to implementation and performance of systems, and (2) the respective benefits and costs of the review and adjustment efforts.

B. Empirical Findings

These state review and adjustment projects are of considerable interest to our effort insofar as they provide information on the benefits, costs, and cost avoidance associated with increased review and modification activity. Caliber (Bishop, 1992) estimates AFDC cost avoidance attributed to review and adjustment of support orders. A total of 6,408 cases were reviewed as part of the demonstration, and modifications were obtained for 3,023 cases. Ninety-two percent of cases modified resulted in an increase in the support order amount; five percent resulted in a decrease in the support order amount; and the remaining cases involved new provisions for medical support and/or immediate wage withholding.

¹⁴ Although all the states in the demonstrations use a court-based system to revise support orders, measures were taken to avoid use of the courts, where possible, in order to minimize the cost of modifying support orders.

Caliber found that award amounts for cases with modifications increased, on average, by 107 percent as a result of the revision process. Compliance with support orders for cases with modification (64 percent of cases) was unaffected by the modification. The modified support orders exceeded AFDC payments plus the \$50 pass-through for 12 percent of cases. Actual child support payments (based on cases with six months of post-modification compliance data) exceeded AFDC payments plus the \$50 pass-through in only five percent of cases modified.

Caliber measured the ratio of additional child support collections to additional child support enforcement costs for reviewing and updating support orders for AFDC cases, where benefits are defined as AFDC costs to state and federal governments avoided or recovered as a result of increased child support collections. Benefits are estimated as the present value of AFDC savings to the government (from cost recovery and cost avoidance) over the 36 months following modification of support orders. Estimated benefit-cost ratios across the four states are 5.75:1 for state governments and 1.62:1 for the federal government. That is, for each dollar spent to modify support agreements, the states save \$5.75 (in 1991 dollars) and the federal government saves \$1.62 in the form of cost recovery or AFDC costs avoided during the 36-month period following the modification. These results are similar to those found in Oregon; 3.73:1 for state government and 2.75:1 for the federal government. In total, AFDC costs avoided over the 36-month period for the 1,947 cases modified in the four-state project were approximately \$5 million. Policy Studies Inc. (PSI) estimates that orders for provision of health insurance might also result in considerable savings for the Medicaid program; up to \$200 annually for every Medicaid-eligible child covered by private insurance.

C. Implications for Child Support Policy and Cost Avoidance

These evaluations provide evidence useful for evaluating and implementing child support order review and modification processes, as well as estimating the cost-savings associated with such efforts. Although the qualitative findings from the demonstration projects are likely to be applicable to all states, the cost-benefit findings cannot be generalized to all states. Caliber found that modification rates, modification amounts, and the cost per case to modify support orders varied substantially across the four states that took part in the demonstration. These estimates may overstate the actual long-run ratio of benefits to costs, however, because (1) the welfare caseload has changed since TANF replaced AFDC, (2) the average size of the adjustments (most of which are upward adjustments) is likely to be higher after the first review than after subsequent reviews, and (3) support orders with greater potential for an upward adjustment were selected for review and modification during these demonstrations.

Future research should address whether the effectiveness and cost efficiency of efforts to modify support awards differ by type of cases (e.g., cases where the non-custodial parent does not pay any support, cases where partial payments are being made, and cases where child support is paid in full). Furthermore, additional research is needed to ascertain whether continuous review and modification is as cost-effective as a one-time review and modification effort. This information would help IV-D program administrators to better target limited resources for modifying support orders.

6. STUDIES OF CHILD SUPPORT POLICY AND BEHAVIOR

The majority of the studies we reviewed focuses on the mechanical effect of child support income on eligibility for public assistance and award levels. Child support enforcement and child support income may also cause behavioral changes that have cost avoidance implications. We use the term “behavioral” rather loosely to refer to impacts that are hypothesized to affect the assumptions and parameters that are valid under the status quo. Incorporating behavioral changes into one’s method for calculating cost avoidance changes the analysis from a static analysis to a dynamic analysis.

Requiring non-custodial parents to take greater responsibility for the welfare of their children could potentially affect the following individuals:

- **Custodial parents** (e.g., by affecting the likelihood and timing of marriage/remarriage and labor force participation);
- **Non-custodial parents** (e.g., by affecting labor force participation);
- **Parents outside the child support system** (e.g., by affecting child bearing and the probability of divorce); and
- **Children with non-custodial parents** (e.g., by affecting their educational attainment).

There is a growing body of literature that analyzes the effect of child support policies on parental behavior and the opportunities available to custodial parents and children receiving support. Many of the issues surrounding child support policy (e.g., the effect on marital behavior, childbearing, and labor force participation) are issues that have been analyzed in the context of welfare policy.

Research on the behavioral effects of child support policy is important because it contributes to the theory of how to estimate cost avoidance. Unfortunately, most of these studies are of limited value for actually calculating cost avoidance because cost avoidance is not the major focus of these studies. Consequently,

- Findings of the authors are not reported in such a way that one can estimate cost avoidance;
- The studies do not provide cost estimates of the child support activities being analyzed (so one cannot compare the benefits of a policy or program to the costs of implementing the policy or program); and
- The studies often do not compare receiving child support versus receiving no child support. Rather, they often estimate the effect of a measure of change in IV-D program activities, such as wage withholding, on parental behavior.

In this chapter we synthesize the literature on the effect of child support policy on divorce and remarriage, childbearing, educational attainment of children receiving support, and labor force participation of custodial parents. For each of these areas we present a theory of why child

support enforcement might affect the behavior or opportunities of parents or children, we present the empirical findings from the literature, we discuss the implications of these findings for child support policy and cost avoidance, and we discuss potential areas for future research.

A. Marital Status (Marriage, Divorce and Remarriage)

The literature on the effect of child support policy on marital status focuses mainly on two areas: (1) the effect of child support on a couple's decision to divorce (see, for example, Nixon, 1997); and (2) the effect of child support on an unmarried mother's decision to marry or remarry (see, for example, Beller and Graham 1993; Beller and Graham, 1992; Yun, 1992; and Folk et al., 1992). Although the research on marital dissolution has focused on the effect of child support on divorce, many of the findings can be generalized to unmarried parents who are contemplating separation. In the annotated bibliography we provide a more detailed summary of two studies on the effects of child support on marital status: "The Effect of CSE on Marital Dissolution" (Nixon, 1997), and "Effects of Child Support on Remarriage of Single Mothers" (Yun, 1992).

1. Theory

Spouses contemplating a divorce usually weigh the perceived benefits of divorce against the perceived costs of divorce. IV-D program activities that increase the perceived cost of divorce to one or both parents theoretically will lower the probability that such a divorce will occur. Likewise, IV-D program activities that lower the perceived cost of divorce to one or both parents will theoretically raise the likelihood of divorce. Thus, IV-D program activities that increase the amount of child support awards or increase the likelihood that support will be collected increase the perceived cost of divorce to the likely non-custodial parent and decrease the perceived cost of divorce to the likely custodial parent.

Historically, the courts have decided in favor of the mother in granting custody of the children unless extenuating circumstances dictate otherwise. Thus, for ease of discussion, we assume that the mother retains custody of the children. From the mother's perspective, an increase in the amount of child support likely to be awarded or an increase in the likelihood that child support will be received on a regular basis decreases the cost of divorce because it reduces the financial risks and expected deterioration in standard of living that often accompanies a divorce. From the father's perspective, a larger expected child support award and increased enforcement raises the perceived costs of divorce. Consequently, child support policies that increase expected awards and provide for increased enforcement will decrease the likelihood that the father will desire a divorce.

Because increased child support enforcement (i.e., higher awards and higher collection rates) has opposing effects on the incentives of husband and wife to divorce, the direction of the net impact of increased child support enforcement on divorce cannot be determined based solely on theory. Nixon (1996) presents a formal model showing how the utilities of both parents are affected by increased child support enforcement. She shows that the effect of increased child support collection on the couple's decision to divorce may be positive, negative, or neutral, depending on the marginal utility of income for both spouses. However, her model shows that increased child support collection is likely to reduce divorce among households where the mother would likely

be on TANF/AFDC following divorce. This is because most¹⁵ states retain all or most of child support collections to offset the cost of TANF benefits paid out.

At some future date following a divorce or separation, one or both parents may seek another marriage partner. The formal economic theories of marital search were first developed by Becker (1981) and others (e.g., Hutchens, 1979), and are based on the theories of job search. Marital search theory attempts to describe the marriage search process in terms of factors that can be easily quantified and neatly captured in a mathematical framework. Although the theory, in effect, minimizes the importance of love and other factors that are difficult to quantify, marital search theory has gained widespread acceptance among social scientists because it allows the researcher to form hypotheses concerning marriage behavior that can be tested empirically.

The formal theory of marital search assumes that women who enter the marriage market face an expected distribution of potential marriage offers (proposals), ranging from lower-quality offers to higher-quality offers. The quality of a given marriage offer is based on the value that the woman places on the characteristics of the offeror. The distribution of potential marriage offers varies across women, depending on each woman's characteristics and the value that potential marriage partners place on her characteristics. Thus, women who are perceived as potentially higher quality partners will face a distribution of potential marriage offers that are of higher quality than a woman who is perceived as being a lower quality spouse.

Search theory assumes that over time women in the marriage market will receive offers of marriage, and that the time interval between offers will depend on her characteristics and level of search intensity. When a woman receives an offer of matrimony she can either accept or reject the offer. If she accepts the offer, the marriage search ends. If she rejects the offer, then she continues the search until another offer is made. Because a custodial mother's marriage search involves both financial costs (e.g., child care while socializing/dating) and a delay of the benefits of marriage, she typically does not continue searching until the perfect match is made. Her decision to accept or reject a specific offer of marriage is determined by weighing the benefits and costs of marriage to the offeror. One major consideration is that rejecting the offer and continuing the search may result in a better offer at some future date. Based on her expectations of her distribution of potential marriage offers, an offer of lower quality is more likely to be rejected than an offer of higher quality. Likewise, the longer the expected time interval between offers, the higher the probability that an offer will be accepted. (While much of the literature focuses on the marriage behavior of women, similar analogies can be made to the marriage behavior of men.)

Child support has two opposing effects on a woman's ability and decision to remarry. The additional child support income facilitates a marriage search because a search involves financial costs. In addition, the additional household income from child support may also make the mother a more attractive marriage partner. On the other hand, the additional income from child support may decrease the intensity of her search efforts and decrease the urgency to accept a marriage offer. Thus, the direction of the net effect of child support on the length of time the mother remains unmarried cannot be determined by theory alone. One thing that marital search theory

¹⁵ See footnote #7.

does suggest, though, is that child support will allow mothers who wish to remarry the opportunity to obtain a higher quality “match.”

The length of time an unmarried mother remains single and the quality of the “match,” should the mother remarry, have several implications for cost avoidance. Remarriage can lift the family out of poverty and off welfare because of the combined income of both spouses or because change of marital status affects program eligibility. Consequently, a reduction in the length of time the mother remains unmarried will directly reduce public assistance expenditures. However, the longer the mother continues her search the more likely she is to find a better marriage partner. A better match increases the likelihood that the second marriage will remain intact, which lowers the probability of future welfare dependency.

2. Empirical Findings

The empirical evidence on the effects of child support policy on marital dissolution suggests that increased child support (i.e., higher support awards and higher rates of collection) has a small, yet statistically significant, negative effect on divorce (Nixon, 1997). Furthermore, the negative effect of child support enforcement on divorce appears stronger for households where the mother is more likely to become a welfare recipient following divorce. Nixon combines data on individual households in the CPS with state level data on IV-D program activities. She estimates that a one percentage point increase in the child support collection rate—one measure of the child support enforcement climate—reduces the probability of divorce by 0.09 percentage points. (Approximately 12 percent of the population studied were divorced in the five-year window prior to the survey year). A one percentage point increase in accounts receivable, average collections, a child support enforcement composite variable, and GPA reduced the probability of divorce by 0.05, 1.1, 0.7, and 1.4 percentage points, respectively.¹⁶

Yun’s (1992) analysis of the effects of child support enforcement on remarriage of single mothers finds little evidence of an impact of child support enforcement on remarriage rates. Yun finds that the amount of child support received is negatively related to the probability of remarriage; however, the estimate is not statistically significant. Yun also finds that the regularity of child support payments appears to have a small impact on the probability of remarriage. Higher variability of payments is positively associated with probability of remarriage, and this relationship is statistically significant.¹⁷

¹⁶ Nixon uses five measures to capture the CSE climate in the state. The five measures are (1) **collection rate**—the percent of CSE cases in which a collection is made; (2) **accounts receivable**—the percentage of child support dollars owed that is collected; (3) **average collections**—average collections per CSE case divided by the state’s median household income; (4) **CSE composite**—a score that measures CSE effectiveness in collection rate, collections per case, collections per dollar spent, and orders established per single parent family; and (5) **GPA**—the grade point average assigned to the state by the CSE Report Card prepared by the House Committee on Ways and Means.

¹⁷ Child support income that varies substantially month-to-month does not contribute as much to the custodial parent’s financial stability as does child support that is received on a consistent basis. Financial stability is one of the reasons why a custodial mother may choose to remarry.

Folk et al. (1992) find no systematic effect of child support awards on probability and timing of remarriage. However, they do find some evidence that receipt of child support—and, in particular, receipt of larger than average awards—may delay remarriage. However, the size of this impact appears to be small. On average, each additional \$1,000 per month in child support appears to decrease the probability of remarriage by three to five percentage points.

3. Implications for Child Support Policy and Cost Avoidance

The empirical research on the relationship between child support and marital dissolution suggests that higher support awards and increased enforcement of support orders may have a small deterrent effect on divorce. Furthermore, the deterrent effect appears to be larger for couples where the mother is more likely to receive welfare assistance should the couple divorce. Deterrence of divorce among those families where the mother is likely to become a welfare recipient following divorce has a direct effect on welfare program expenditures.¹⁸

The literature on remarriage suggests that higher support awards and increased enforcement of support orders increases the length of time a divorced mother remains single. Because remarriage is a common route for single mothers to exit poverty, a delay in remarriage or the decision to remain single may result in higher welfare program expenditures. Thus, while increased child support enforcement and amounts may reduce welfare expenditures via its deterrent effect on divorce, it could increase welfare expenditures via its effect on delaying remarriage.

4. Areas for Future Research

Most of the research on the effect of child support on marriage behavior has focused on the decision of married couples to divorce and the decision of divorced mothers to remarry. However, an increasing proportion of the households on public assistance and households participating in the IV-D program are headed by never-married mothers. Furthermore, never-married mothers are less likely than previously married mothers to receive a support award and less likely to actually receive support that is awarded. Thus, there is a need for additional research on the effects of child support policies on the decision of unwed couples to separate and unwed mothers to marry following separation. One reason for the dearth of research on the effect of child support policies on the behavior of unwed mothers and fathers is the lack of data. Relationships between unwed mothers and fathers may be casually entered into and exited from, whereas marriages and divorces leave a paper trail. Marriage and divorce records have been used by researchers to conduct empirical analyses of marital behavior. Thus, development of a database with information on the cohabitation patterns, motherhood information, and child support payment information for unwed mothers would stimulate additional research in this area. A final area for further research is to translate the effects of child support enforcement on marital behavior into dollars saved. Specifically, when a divorce is prevented what are the implications for program costs and tax revenues?

¹⁸ In 1995, 41.5 percent of mother-headed families with children under 18 had incomes below the poverty threshold. Duncan and Caspary (1997) find that during the 1980s approximately 23 percent of initial AFDC spells occurred as a result of a divorce or separation.

B. Childbearing

In 1996, an estimated 1.2 million children were born to unmarried mothers. A large proportion of these children receive public assistance throughout their childhood years. Requiring absent parents to assume greater responsibility for the financial well-being of their children through policies to establish paternity, to increase child support awards, and to increase collection of child support could potentially reduce out-of-wedlock childbearing. Recent studies on the effects of child support enforcement on out-of-wedlock childbearing include Sonenstein, Pleck, and Ku (1994); Case (1996); and Plotnick et al. (1998).

In this section we present the theoretical relationship between child support enforcement and non-marital fertility rates. Then, we discuss the empirical findings in the literature and their implications for child support policy and cost avoidance, and address areas of potential future research. In the annotated bibliography, we summarize two recent articles on child support enforcement and childbearing: “The Effects of Stronger Child Support Enforcement on Non-marital Fertility” (Case, 1996), and “Better Child Support Enforcement: Can It Reduce Premarital Childbearing?” (Plotnick et al., 1998).

1. Theory

Policies that require absent fathers to assume greater financial responsibility for raising their children potentially increase the cost of fatherhood and decrease the cost of motherhood. Thus, in theory, IV-D program activities may affect both a man’s and a woman’s decision to parent a child. The net effect of child support enforcement on childbearing depends on whether the impact is greater on the man’s or the woman’s decision to parent children.

For women who are likely to go on welfare should the father of their child leave, the decreased financial cost of motherhood resulting from increased child support is tempered by the fact that many states retain all child support collected on behalf of TANF cases, and in many other states mothers on TANF get only the first \$50 per month of any child support collected. In addition, the increased benefits from more aggressive IV-D program activities are relatively small when compared with the cost of raising a child. Thus, theory would suggest that the impact of child support enforcement on a woman’s decision to bear children would be quite small.

All else being equal, any effect of child support enforcement on a man’s decision to father a child is likely to be correlated with the probability that the man will someday be involved with the IV-D program. The increased cost of fatherhood from increased CSE falls disproportionately on those prospective fathers who are most likely to leave the mother of their child. Consequently, theory suggests that more aggressive CSE will have a larger deterrent effect on child bearing for unmarried men than on married men. Deterring non-marital births potentially reduces the number of children in the child support system, which reduces the cost of public programs.

2. Empirical Findings

Variation in child support policies and enforcement over time and across geographical areas has allowed researchers to empirically investigate the effect of IV-D program activities on childbearing. A common approach is to employ a multivariate regression analysis that measures

the relationship between the dependent variable (e.g., fertility behavior or fertility rates of unwed mothers) and measures of CSE activity, while controlling for other factors that are hypothesized to affect the dependent variables (e.g., the demographic and socioeconomic characteristics of the sample or population).

Plotnick et. al. (1998), use cross-state variation in CSE and variation over time to analyze the effect of CSE on out-of-wedlock childbearing. They find that states with higher rates of paternity establishment and increased CSE have lower rates of non-marital births. Their findings are consistent with the hypothesis that policies that raise the financial cost of fatherhood may be successful in lowering the number of non-marital births. However, evidence of a relationship between CSE and non-marital fertility rates does not establish a causal link. As Case (1996) and others point out, the relationship between increased CSE and lower non-marital fertility rates may reflect differences in community attitudes that the researcher cannot hold constant in his or her analysis. For example, communities that are less accepting of non-marital births may adopt more aggressive support collection activities and also have fewer non-marital births than communities that are more accepting of non-marital births.

Case estimates the relationship between specific IV-D program activities and out-of-wedlock childbearing. She finds a negative and statistically significant relationship between out-of-wedlock childbearing and (1) mandatory withholding of child support from wages, and (2) long arm statutes. In addition, Case finds that the non-marital birth rate influences a state's IV-D program activities. Hence, it is necessary to control for the potential endogeneity between a state's IV-D program activities and non-marital birth rates when analyzing the effect of CSE on non-marital births.

Sonenstein et al. (1994) use variation in child support and paternity establishment programs across counties to analyze the relationship between policies that increase the cost of fatherhood and the use of contraceptives by sexually active young men. They find no evidence to suggest that policies that increase CSE or policies to improve paternity establishment rates change the use of contraceptives by sexually active young men.

3. Implications for Child Support Policy and Cost Avoidance

The amount of cost avoidance that results indirectly from increased CSE via lower rates of childbirth is expected to be limited. First, the small body of research on the effect of increased CSE and paternity establishment on non-marital births suggests that the impact of such policies on birth rates, if any, may be quite small. In addition, only a portion of those households where a non-marital birth was prevented would have become welfare recipients. Duncan and Caspary (1997) find that during the 1980s, 52 percent of initial AFDC spells occurred as a result of a birth. Twenty-one percent of first AFDC spells are associated with a first birth to a never-married mother; 14 percent of first AFDC spells are associated with a first birth under other circumstances, and 17 percent of first AFDC spells are associated with a second or later birth.

4. Areas for Future Research

Research on the impact of CSE on childbearing has focused on out-of-wedlock childbearing. However, because many marriages end in divorce, increased CSE could reduce marital

childbearing. This suggests that the research be extended to look at the effect of CSE and childbearing among married couples. Case suggests that one avenue for future research is to develop better instruments to capture the effect of CSE on childbearing. Likewise, the creation of rich household level data, especially longitudinal data, would facilitate research on the effect of CSE on childbearing.

Finally, more research is required before the impact of CSE on cost avoidance, via its effect on childbearing, can be determined. The empirical research suggests that more aggressive CSE may have a small negative impact on birthrates among unwed mothers. However, these studies do not investigate the issue of cost avoidance when birth rates are reduced. In addition to empirical estimates of the implications of reduced childbirth for cost avoidance, the theoretical relationships need to be further developed.

C. Educational Attainment

Child support could have long-term cost avoidance and tax revenue implications through its effect on the educational attainment of children who receive financial support. The limited research in this areas suggests that child support payments may contribute to the educational attainment of children with a non-custodial parent. Educational attainment is considered by many to be a good proxy of future financial and social success—individuals who attain higher levels of education are more likely to have higher income and a stable family environment than are individuals with lower educational attainment.

In this section we review the literature on the potential link between child support and educational attainment and discuss the implications for measuring cost avoidance. Studies on this topic include Beller and Chung (1988); Krein and Beller (1988); Graham, Beller, and Hernandez (1991); Knox (1993); Hernandez, Beller, and Graham (1995); Hernandez (1996); and Knox (1996). In the annotated bibliography, we summarize in more detail two recent studies on child support and educational attainment: “Changes in the Relationship Between Child Support Payments and Educational Attainment of Offspring, 1970-1988” (Hernandez, Beller, and Graham, 1995), and “The Effects of Child Support Payments on Developmental Outcomes for Elementary School-Age Children” (Knox, 1996).

1. Theory

One may hypothesize several reasons why receipt of child support may increase the educational attainment of children with non-custodial parents. First, additional household income, regardless of source, may allow the household to purchase education directly. Child support income may make it possible for the child to attend a private school, to purchase tutoring services, or to invest the money into a college fund. Second, higher income may allow the household to purchase goods and services that increase cognitive stimulation in the home and thus indirectly affect educational attainment. Finally, child support income may not have the social stigma attached to it that welfare income has. Consequently, on average, children whose non-custodial parent pays child support may have higher self-esteem than children whose non-custodial parent does not pay child support. Self-esteem may be one of many factors that affect a child’s educational attainment.

To test the theories postulated above, researchers have analyzed the relationship between child support and child's educational attainment where attainment is measured in years of formal education completed or completion of high school. Some research focuses on measures that are correlated with educational attainment, or thought to affect educational attainment, such as scores on diagnostic aptitude tests and other measures of cognitive ability.

Unfortunately, such theories are not easy to test because child support and educational attainment may both be correlated with factors that are unobservable to the researcher. To isolate the effect of income on educational attainment, many researchers attempt to control for parent characteristics that may be correlated with both income and their children's level of educational attainment. Researchers often can control for some observable characteristics of the parent that are hypothesized to be correlated with both income and children's educational attainment (e.g., parent's level of education) but cannot directly control for characteristics that are unobservable to the researcher (e.g., parent's intelligence or motivation).

2. Empirical Findings

The hypothesis that child support may increase a child's educational attainment raises two important questions. First, does higher household income lead to higher educational attainment? Second, does income from child support have a different effect on educational attainment than does income from other sources? Empirical research shows a positive correlation between household income and a child's educational attainment. In addition, there is some evidence to suggest that each additional dollar in child support has a greater effect on a child's educational attainment than each additional dollar from other sources (see, for example Graham, Beller, and Hernandez, 1991; Beller and Chung, 1993; Hernandez, Beller, and Graham, 1995; and Knox, 1996).

Knox finds a positive relationship between household income and achievement test scores in elementary school-age children, and a positive and statistically significant relationship between household income and level of cognitive stimulation in the home environment. Furthermore, for children in single-parent families, child support is positively correlated with achievement test scores. This relationship is quite small, but statistically significant. For years in which the mother is single, each additional \$100 in child support payments is associated with a one-eighth to seven-tenths point increase in achievement test scores (the sample mean test score is 201.58). The effect of each additional \$100 in income, regardless of source, is about one-eightieth to one-sixtieth of a point increase in achievement test scores. Each additional \$100 in child support increases the home cognitive score by one-tenth of a point (the sample mean test score is 96.96).

Hernandez et al. (1995) estimate the effect of child support on three measures of educational attainment: years of schooling completed, whether a child falls behind his or her cohort in school or drops out, and whether the child graduates from high school. They use data from the CPS March/April Match files for 1979 and 1988. They find that in 1979 a \$1,000 increase in child support (in 1987 dollars) is associated with 0.025 additional years of schooling completed. This estimate is statistically significant at the five percent level. In 1988, the same dollar increase in support is associated with an increase of 0.022 additional years of schooling. However, the estimate is not statistically significant. Similarly, they find that in 1979 a \$1,000 increase in child support payments lowers the probability of falling behind in school (i.e., repeating at least one

grade or dropping out of school) by a statistically significant 2.22 percent. The corresponding figure in 1988 is 1.13 percent but is not statistically significant. The authors find no evidence that receipt of child support affects the probability of graduating from high school.

3. Implications for Child Support Policy and Cost Avoidance

Research on the relationship between child support and educational attainment suggests that child support income has a small, positive effect on educational attainment, and that child support might have a greater impact than other types of income. However, because the effect is quite small, the effect on cost avoidance will be limited. Higher educational attainment may lead to higher future earnings which has implications for future tax collections and future likelihood of dependence on welfare.

4. Areas for Future Research

To estimate the impact of child support on cost avoidance via its effect on educational attainment, further research is required on the relationship between educational attainment and cost avoidance. Particular areas to address include the relationship between higher educational attainment and future earnings, childbearing, divorce, participation in the child support program, and participation in government welfare programs.

D. Labor Supply

A growing body of literature explores the relationship between child support and labor force participation. The majority of this research analyzes the impact of child support income on the labor supply of single, custodial mothers. Little research investigates the extent to which CSE efforts affect the labor supply of non-custodial parents. In this section we present the economic theory of labor supply and discuss how child support affects the labor supply decisions of custodial and non-custodial parents. We discuss the implications of these findings for child support policy and measuring cost avoidance. In the annotated bibliography, we summarize in more detail a recent study entitled: "Child Support, Welfare Dependency, and Women's Labor Supply" (Hu, 1999).

1. Theory

The economic theory of labor supply has been well developed in the literature. The theory suggests that the decision to enter the labor force and the number of hours an individual expects to work are jointly determined. Individuals will enter the labor force if the utility (i.e., benefits) of their expected earnings outweighs the opportunity cost of working. The opportunity cost of working consists of the value of leisure time and pecuniary costs associated with working (e.g., transportation, wardrobe, and child care). The theory of labor supply, and in particular the labor supply of custodial parents who may be on welfare, is formally presented in Graham and Beller (1988), Graham (1990), and several other papers.

Child support enforcement has different implications for the labor supply of three populations of adults involved with the child support system: (1) non-custodial parents, (2) custodial parents not on welfare, and (3) custodial parents on welfare. We discuss each in turn.

Labor Supply of Non-custodial Parents

Historically, child support awards were reviewed only rarely, so a non-custodial parent's current labor supply could have little effect on the size of future support awards. Under the current CSE regime, child support awards may undergo a periodic review (when requested by either parent or that state) where the earnings of the non-custodial parent are reexamined to determine if the child support award accurately reflects the non-custodial parent's ability to assist financially with the welfare of his or her child. The institution of periodic review of support awards has profound theoretical implications for the labor supply of the non-custodial parent.

When child support awards were reviewed infrequently, the award acted as a lump sum tax on earnings of non-custodial parents. Theory suggests that some non-custodial parents would respond to the loss in disposable income by working longer hours. This response to a drop in income is referred to as an "income effect." Because support awards were reviewed infrequently, the number of hours a non-custodial parent worked, and therefore earnings, had little impact on the size of future support awards.

If awards are reviewed periodically, however, a non-custodial parent's labor supply does affect future award amounts. Non-custodial parents that work longer hours, and thus have higher earnings, will likely see the amount of the support award increase in the future. Consequently, the likelihood of future increases in support awards acts as a tax on hours worked. Economic theory suggests that such a tax will have a negative impact on hours worked. This negative impact on hours worked as non-custodial parents substitute work hours for more leisure hours (i.e., non-working hours) is referred to as a "substitution effect." Thus, theory suggests that CSE (and in particular periodic review) causes two opposing forces to have an impact on the labor supply of non-custodial parents—an income effect caused by the lump-sum-tax nature of current child support awards, and a substitution effect caused by the earnings "tax" nature of future child support awards modified by periodic review. The net effect of CSE (and in particular periodic review) on the labor supply of non-custodial parents can only be determined empirically.

Labor Supply Of Custodial Parents Not On Welfare

Economic theory suggests that exogenous increases in non-labor income will have a negative impact on labor supply. As household income rises, the utility of each additional dollar falls. Consequently, child support is hypothesized to decrease the labor supply of working custodial parents. Various authors have investigated the amount by which an exogenous increase in child support reduces labor supply. Graham and Beller (1988) and Graham (1990) argue that because child support income is volatile, child support income has a smaller adverse effect on labor supply than does income from other, more stable, non-labor sources.

Some states require that non-custodial parents help pay child care costs if the custodial parent enters the labor force. Payment of child care costs reduces the cost of working, which theory suggests should lead to an increase in labor supply of custodial parents. The net effect of child

support and payment of child care costs on the labor supply of custodial parents can only be determined empirically.

Labor Supply Of Custodial Parents On Welfare

Burtless and Moffitt (1986) and others have shown that an exogenous increase in non-labor income (e.g., child support) does not necessarily reduce labor supply for people who are dependent on welfare. Welfare programs create incentives and disincentives that affect the net benefits of working. Welfare benefits from means-tested programs such as TANF and Food Stamps fall as household income rises. In addition, if household income surpasses the income eligibility threshold for Medicaid then all Medicaid benefits cease. The reduction in welfare benefits for each additional dollar of earnings means that welfare programs impose a high implicit tax on earnings. If benefits fall by one dollar for each dollar increase in earnings, then the implicit tax on earnings is 100 percent up to the point where earnings makes the person no longer eligible for welfare assistance. The level of earnings at which the welfare recipient is no longer eligible for public assistance is sometimes referred to as the “break-even” point.

Child support lowers the break-even point because the receipt of child support reduces the benefits of public assistance. Thus, the implicit tax on earnings caused by a reduction in welfare benefits applies to fewer earnings. Consequently, the receipt of child support may result in some custodial parents entering the labor force. Assistance with child care costs further increases the net benefit of labor force participation. Graham and Beller (1988) and Hu (1996) point out that outcomes regarding labor supply, welfare participation, and child support receipts are interrelated, and thus should be analyzed simultaneously.

2. Empirical Findings

Very little research has been conducted on the effect of CSE on the labor supply of non-custodial parents. Consequently, we focus on the empirical findings regarding the labor supply of custodial parents (and in particular custodial mothers).

Veum (1992) finds that custodial mothers who receive child support are more likely to be in the labor force and work longer hours, on average, than custodial mothers who do not receive child support. His findings are based on data from the 1988 National Longitudinal Survey of Youth (NLSY). Approximately 77 percent of custodial mothers in the NLSY who received child support worked outside the home at some point during the year preceding the survey. Approximately 17 percent of these mothers worked between 1 and 999 hours, and the remaining 83 percent worked 1,000 hours or more during the year. By comparison, 70 percent of custodial mothers who did not receive child support worked outside the home during the year preceding the survey. The percentage of these mothers who worked 1 to 999 hours and 1,000 or more hours during the year are 23 percent and 77 percent, respectively. In addition, Veum finds that mothers who received child support have higher educational attainment and higher wages, on average, than custodial mothers who received no child support during the year. These latter findings suggest that custodial mothers who receive some child support may be systematically different from custodial mothers who receive no child support, and that these differences may be correlated with both the receipt of child support and the labor supply decision.

Hu (1999) uses data on separated and divorced mothers from the Panel Study of Income Dynamics (PSID) to study the impact of child support on labor supply. Hu demonstrates that increased child support induces some custodial mothers on welfare to enter the labor force, but causes a reduction in hours worked among some custodial mothers who are already in the labor force. However, Hu finds that the increase in labor supply from new participants offsets the reduction in hours for custodial parents already in the labor force.

Hu finds that, on average, a \$1,000 increase in annual child support payments decreases AFDC participation by three to four percentage points. However, increased labor force participation accounts for only a part of this reduction in AFDC participation. A \$1,000 increase in child support could be expected to increase annual labor supply of all custodial mothers by between nine and 53 hours per year, on average. This increase in average hours worked is mainly a result of the decision of some mothers to enter the labor force.

Graham and Beller (1988) find that the negative impact of child support on hours worked is only one-third that of more stable sources of non-labor income. Graham (1990) further investigates the size of the income effect on labor supply. He argues that because actual child support payments will vary month to month, predicted child support is a better measure than actual child support payments to establish the relationship between child support and labor supply behavior. When Graham substitutes predicted child support in place of actual child support payments in a labor supply equation, the estimated income effect on annual labor supply changes from a reduction of 22 to 25 hours per additional \$1,000 in child support income to a reduction of 54 hours per additional \$1,000 in child support income.

3. Implications for Child Support Policy and Cost Avoidance

IV-D program activities that increase support payments can affect government revenues and the cost of government programs via the impact of child support on the labor supply decisions of both custodial and non-custodial parents. The cost avoidance implications of IV-D program activities that increase child support payments differ for custodial parents on welfare and those not on welfare. Increases in child support and assistance with child care costs may induce some custodial parents to enter the labor force, while the income effect caused by child support income may cause some reduction in hours worked for custodial parents already in the labor force. If the custodial parents induced by child support to enter the labor force are on welfare, there will be cost avoidance. If the custodial parents induced by child support to reduce labor force effort are not on welfare (or receiving any public assistance), then a reduction in labor force effort will not increase public costs.

The additional income from earnings (added to child support income) further reduces welfare dependency. In addition, labor income has tax revenue implications. However, the tax revenue implications are complicated by the fact that as labor income increases (up to a certain level), the household becomes eligible for the earned income tax credit.

IV-D program activities—and in particular periodic review and adjustment of child support agreements and automatic earnings withholding for child support—could affect the labor supply decision of non-custodial parents. However, the direction of the impact in terms of hours worked cannot be determined by theory. Child support acts as a lump-sum tax on the earnings of non-

custodial parents, and could cause some non-custodial parents to increase their labor supply to offset the reduction in income. However, periodic review of support awards means that parents who work longer hours (and thus have higher earnings) may be “taxed” in the form of higher future support awards.

4. Areas for Future Research

Because of data availability and public policy interests, the literature on child support and labor supply focuses on the labor supply behavior of custodial mothers. Several studies estimate the relationship between support income and the decisions regarding labor force participation and number of hours worked. Additional research focusing on the cost avoidance implications of labor supply decisions would contribute to the methodology to estimate cost avoidance. The implications for welfare participation and the implications for tax revenues and the Earned Income Credit program are of particular interest. Research on the implications of labor force participation on long-term welfare dependency would also be useful to measuring cost avoidance.

The lack of data on non-custodial parents has contributed to the paucity of research on the effect of IV-D program activities on the labor supply of non-custodial parents. Of particular interest is the impact of periodic review on the labor supply of non-custodial parents. Also, additional research is needed on the labor supply impact of programs such as automatic withholding for child support, automation that allows the IV-D program to more quickly identify the employer of non-custodial parents, and long-arm policies that allow states to garnish the earnings of delinquent non-custodial parents in other states.

7. MICROSIMULATION MODELS AND THEIR USE IN ESTIMATING CHILD SUPPORT COST AVOIDANCE

One component of this project was to review how microsimulation models could be used or modified to estimate cost avoidance. Particular issues to address included the advantages and disadvantages of specific models, the utility of the models at the national and state levels, and the extent to which the models currently or ultimately will be appropriate for taking into account the recent changes in AFDC, Food Stamps, Medicaid, and other programs.

A. What is a Microsimulation Model?

Microsimulation, by definition, involves simulating outcomes of a small economic unit—typically the individual or the household. A microsimulation model is a set of logic that uses information on the unit being analyzed (e.g., the household) and institutions (e.g., welfare programs) to determine the likely impacts of exogenous factors on a household's economic well-being. Microsimulation involves two types of equations—mechanical and behavioral. An example of mechanical logic is the determination of welfare program eligibility and benefits by comparing household income and assets to program eligibility criteria. Examples of behavioral logic include modeling how people will likely react to changes in child support income in terms of work and welfare participation.

To measure cost avoidance, a microsimulation model should do the following.

1. **Identify the relevant population.** The main population of interest for calculating cost avoidance is those households that (1) have dependents who are eligible to receive child support, and (2) are eligible for welfare (or other means-tested programs of interest).
2. **Calculate welfare eligibility and entitlements** both with and without child support included in total household income. The model should compare household income and asset levels to program eligibility requirements and benefit determination guidelines.
3. **Assign probabilities** that program-eligible households will participate in TANF, Food Stamps, Medicaid, and other programs of interest.
4. **Compute aggregate statistics** based on individual household outcomes.

In addition, microsimulation models have the potential to simulate changes in the behavior of individuals in response to contemplated program changes, such as changes in program participation and changes in labor force participation.

B. Microsimulation Data Requirements

Because microsimulation involves household level analyses, it has very demanding data requirements. The optimal data set to populate a microsimulation model that estimates cost avoidance is a longitudinal data set with monthly observations containing the following information: (1) household and household member income and assets; (2) number of dependents;

(3) relationship of household members to each other; (4) existence and amount of support order; (5) child support received; (6) participation in government welfare programs and benefits received; (7) labor force participation of custodial parent; and (8) information on income, assets, and labor force participation of the non-custodial parent. Unfortunately, this optimal data set does not exist. The data sets that comes closest to meeting the above criteria are the Census Bureau's Survey of Income and Program Participation (SIPP) and the Current Population Survey (CPS). Current microsimulation efforts use the CPS, which is discussed in more detail below. There are many technical difficulties that make the SIPP difficult to use in a microsimulation model (see Giannarelli, 1992).

C. Potential of Microsimulation Models for Estimating Cost Avoidance

Microsimulation models have the potential to measure cost avoidance for various scenarios, including (1) cost avoidance attributed to the IV-D program, (2) cost avoidance attributed to all child support collections, and (3) cost avoidance attributed to specific existing or proposed IV-D program activities or policies. Microsimulation models can be used to measure cost avoidance for both real life and hypothetical scenarios. Because microsimulation models can simulate outcomes for a wide variety of policy scenarios, these models provide a powerful tool for policy analysis.

Data limitations prevent the development of more complete microsimulation models to measure cost avoidance. In particular, lack of data on non-custodial parents prevents the development of behavioral components in a microsimulation model to simulate how non-custodial parents might react to changes in CSE, to changes in welfare rules, or to changes in other factors affecting their economic well-being. Also, the paucity of data on non-custodial parents limits the ability of microsimulation models to simulate the ability of non-custodial parents to pay child support.

D. The Advantages of Microsimulation Modeling to Other Approaches Used to Estimate Child Support Cost Avoidance

Two alternatives to microsimulation have been used to measure cost avoidance. The first uses aggregated data and population averages (the "aggregated data" approach). The second uses household level data and econometric regression techniques to estimate a series of equations describing the relationship between child support levels and welfare payments (the "systems of equations" approach). Each approach has advantages and disadvantages regarding the cost to conduct a study, the amount of information the study will provide, the reliability of the findings, and ability to generalize the findings to other populations. We briefly describe these alternative approaches and discuss the advantages and disadvantages of microsimulation relative to these approaches.

As discussed in Chapter 3, the most common approach to estimating cost avoidance is the aggregate data approach. Under this approach, you would determine the number of households that would become eligible for particular welfare programs in the absence of child support, and then to apply population averages to determine (1) the number of program-eligible households that would apply for benefits, (2) the average program expense per program enrollee, and (3) average expected length of time a case would remain on welfare. Much of the data used in this

approach come from state administrative files or are gleaned from published reports. Recent studies that use this approach include Meyer and Dworsky (1997) and Texas Office of the Attorney General (1997). Meyer and Dworsky estimate the cost avoidance implications of reviewing child support orders. Their report presents state-by-state estimates of savings to the TANF, Food Stamp, and Medicaid programs. In addition, they provide a detailed description of their methodology and the parameters used. Most of the data used by Meyer and Dworsky come from published reports. The Texas study estimates cost avoidance associated with Texas' Child Support Enforcement program in FY 1996. This study estimates the likely reduction in AFDC, Medicaid, and Food Stamps resulting from Texas' CSE system. The data used in the Texas study include parameters reported in the literature¹⁹ and data from IV-D case files and various state agencies.

The major advantages of microsimulation relative to the aggregate data approach stem from two major distinctions between the approaches: (1) the use of household versus aggregated data, and (2) the more complex logic used in the microsimulation analysis. Household level analyses have several advantages over analyses that rely on aggregated data. First, simulation of household outcomes allows one to measure the distributional effects of program changes. For example, microsimulation allows one to identify households that are winners and losers from various policy decisions. Second, because the microsimulation approach models welfare program eligibility at the unit where real-life decisions are made (i.e., the household), cost avoidance estimates may be more accurate than estimates obtained using the aggregate data approach. Third, analyses of households allow one to determine eligibility for different welfare programs, so secondary and tertiary effects of changes in child support can be analyzed. For example, an increase in child support may affect TANF eligibility and benefits, which may then affect Food Stamp eligibility and benefits. Microsimulation models usually use more complex sets of equations than do analyses that rely on aggregated data. This feature gives microsimulation models more flexibility in the types of scenarios analyzed. In addition, microsimulation models do a better job of modeling things as they actually are with less reliance on simplifying assumptions.

The main disadvantages of microsimulation models compared to analyses that rely on aggregated data are related to the availability of household level data. The data requirements are much greater for the microsimulation approach and the data are often not available. Microsimulation requires a rich database containing household level demographic, child support, and income and asset information. National surveys like CPS and SIPP contain much of the data required to estimate cost avoidance, but national surveys have an insufficient sample size to calculate reliable state level estimates. IV-D program and welfare program case files can be a rich source of information on households participating in the program, but contain little or no information on households outside the program.

The following table compares the relative advantages of microsimulation and approaches that rely on aggregate data to estimate cost avoidance.

¹⁹ In particular, this study relies on parameters reported in Advanced Sciences, Inc. and SRA Technologies, *Final Report of Cost Avoidance Attributable to Child Support Enforcement*, June 26, 1987.

Table 7-1 The Advantages of Microsimulation Compared to Approaches that Use Aggregate Data

Advantages of Microsimulation	Advantages of the Aggregate Data Approach
Models the economic unit (the household) where real-life decisions regarding household finances and welfare program eligibility are made	Fewer data demands
Lower marginal cost to perform analyses using alternative scenarios	Lower up-front costs for model development
Models state and federal program guidelines and tax laws	Lower maintenance costs
More flexibility to simulate outcomes for various scenarios	
Captures welfare program interactions and identifies secondary and tertiary effects	
Ability to perform distributional analyses	
Potential for modeling behavioral effects	

The systems of equations (SOE) approach to measure cost avoidance is currently being developed by individuals affiliated with the Massachusetts Department of Child Support Enforcement. This approach uses household data to estimate a series of econometric equations that describe the relationships between IV-D program activities, CSE outcomes, welfare expenditures, and behavior of custodial parents (see Luttrell and Lee, 1998).

One key difference between the SOE approach and the use of a microsimulation model (such as TRIM) is that the SOE approach does not compare the households' characteristics (e.g., income and asset levels) against welfare program eligibility and entitlement guidelines to determine whether a household is eligible for program participation and the level of entitlements. Instead, the relationships between household characteristics and program participation are estimated using a multivariate regression analysis, and the relationships are then used to impute a probability of participation for each household. Similarly, actual data on establishment of support orders, award amounts, paternity establishment, and child support collections are used to estimate the relationship between these factors and household characteristics, and then the estimated equations are used to impute outcomes for each household.

Microsimulation models have several advantages over the SOE approach used by Luttrell and Lee. First, microsimulation models more closely reflect reality than the series of equations used in the Luttrell and Lee approach. Microsimulation models like TRIM contain equations describing actual state and federal guidelines regarding taxes and program eligibility and entitlements. Second, relationships between different factors are not limited by the researchers' model specifications. This has two implications: (1) microsimulation can model secondary and tertiary effects of policy decisions whereas obscure relationships may not be explicitly modeled when using the SOE approach, and (2) microsimulation models are more flexible in the types of analyses that can be performed. For example, one can estimate the child support cost avoidance

implications of changes to tax laws, and of changes to welfare program eligibility and awards guidelines at relatively low marginal cost. With the SOE approach, one may need to re-estimate the model parameters.

One advantage of the SOE approach over microsimulation models (such as TRIM) is the ability to measure state level cost avoidance estimates. Luttrell and Lee expect that once their model has been estimated with detailed data from a small number of states, their model could be used to estimate cost avoidance for states that have less rich data sets. Because this approach is still being developed, the full advantages of this approach are still being discovered.

The following table compares the relative advantages of microsimulation and the SOE approach for estimating cost avoidance. Many of the advantages of each approach are the same as those comparing microsimulation to approaches that use aggregated data.

Table 7-2 The Advantages of Microsimulation Compared to the “System of Equations” Approach

Advantages of Microsimulation	Advantages of The System of Equations Approach
Models the economic unit (the household) where real-life decisions regarding household finances and welfare program eligibility are made	Can be estimated using data in states’ automated case files
More flexibility to simulate outcomes for various scenarios and low marginal cost to model alternative CSE scenarios	Ability to compute state level analyses
Models state and federal program guidelines and tax laws	Lower up-front costs for model development
Captures welfare program interactions and identifies secondary and tertiary effects	Lower maintenance costs

E. The Urban Institute’s Transfer Income Model (TRIM)

After consultation with area experts, we determined that the Urban Institute’s Transfer Income Model (TRIM) is the only major microsimulation model with the current capacity to measure child support cost avoidance.²⁰ Another microsimulation model with the potential—after significant modifications—to measure cost avoidance is Mathematica’s Micro Analysis of Transfers to Households (MATH) model. MATH, like TRIM, uses household data to determine a household’s eligibility for various welfare programs and expected level of benefits. MATH and TRIM are both derived from a microsimulation model developed at The Urban Institute in the 1970s. Although both MATH and TRIM share a common ancestor, the models have diverged

²⁰ TRIM is under constant development. The Urban Institute is currently developing the third version of TRIM (TRIM3). All recent child support analyses using TRIM were performed with the second version of TRIM (TRIM2). Throughout this text we refer to the Urban Institute’s model as the TRIM model, and distinguish between the different versions of TRIM only when necessary.

over time. TRIM continued to be developed as a tool for analyzing a variety of transfer programs, while MATH developed as a tool for modeling the policy implications of the Food Stamp Program.

Our review of TRIM is based on technical documentation of the model (Giannarelli, 1992; Martini, 1993; and Clark and Giannarelli, 1994), papers based on the model (Sorensen and Wheaton, 1994; and Wheaton and Sorensen, 1998), and meetings with senior Urban Institute officials responsible for development and implementation of the model. It should be noted that this paper does not provide a comprehensive review of the capabilities of the microsimulation models of interest. (For a detailed review of TRIM's ability to model cost avoidance see Wheaton and Sorensen, 1998). In addition, we did not ask the Urban Institute to conduct any special analyses for this project. Consequently, we are unable to assess the accuracy of the models by running a series of simulations. Below we give a brief history of TRIM, provide an overview of the model and discuss its capabilities, and describe the data used in TRIM.

History

TRIM and its predecessors were originally developed in the late 1960s and 1970s to provide policy analysts with a tool for studying the effects of changes in tax laws and welfare policies on the economic well-being of households. Development and maintenance of TRIM has been funded in part by The Urban Institute itself; by various government agencies that have used TRIM, including the Office of the Assistant Secretary for Planning and Evaluation of the U.S. Department of Health and Human Services, the U.S. Department of Labor, the Congressional Budget Office, and the U.S. Department of Agriculture; and by private foundations.

During the past several decades TRIM has been used to study a wide range of issues—from the effects of proposed changes in tax laws on after-tax income of households to the effects on households of changes in Medicaid, Food Stamps, AFDC, SSI, and other transfer programs. HHS and CBO have used the TRIM model to estimate the cost-avoidance of possible policy changes under current and potential collection scenarios. The Urban Institute has used TRIM to estimate (1) cost avoidance attributed to all child support collections, (2) cost avoidance that would occur if all child support owed were collected, and (3) cost avoidance if all custodial households had established support orders and there was 100 percent compliance with the orders. One Urban Institute study (1994) estimates the reduction in welfare payments—relative to the status quo—if 100 percent of child support obligations were paid. CBO also used TRIM to help estimate the budgetary effects resulting from new child support enforcement policies mandated in PRWORA. These studies are discussed in more detail in the annotated bibliography.

TRIM has undergone significant changes over time with additional “modules” added to allow TRIM to perform additional types of analyses. TRIM is continually updated to reflect changes in tax laws (both state and federal) and changes in transfer program eligibility and entitlement guidelines. Maintaining TRIM requires significant resources because tax laws and transfer program guidelines often vary state by state and over time.

The Urban Institute is developing a new version of the TRIM model (TRIM3) that is designed to make TRIM more accessible. TRIM2 and its predecessors were designed to run off a mainframe computer, while TRIM3 has been designed for the personal computer. Another significant

change is a revision of the AFDC module to model the TANF program. In addition, Urban Institute researchers have conducted exploratory work to incorporate into the model labor supply options and tastes of low-income, single mothers based on work by Martini (1997). However, incorporation of labor supply behavior into TRIM3 is still several years away. When labor supply behavior (i.e., household decisions whether to participate in the workforce and the number of hours worked) is incorporated into TRIM3, the model will be able to simulate changes in labor supply behavior of low-income mothers following changes in child support or changes in welfare benefits.

Although several microsimulation models exist that can be used to simulate the effects of proposed policy changes on household economic well-being, TRIM is unique in that it has all the components needed to estimate cost avoidance.

Model Overview and Capabilities

TRIM2 contains 11 major sections—the basic model and 10 modules. The basic program supervises execution and calls the simulation modules needed to perform an analysis. Each of the 10 modules is designed to model a specific program or group of related programs or taxes. The ten modules in TRIM2 are

- 1) Supplemental Security Income (SSI),
- 2) Aid to Families with Dependent Children (AFDC), that has been replaced by Temporary Assistance to Needy Families (TANF),
- 3) Food Stamps,
- 4) Medicare and Medicaid,
- 5) Medicaid insurance values,²¹
- 6) employer-sponsored health insurance,
- 7) child support,
- 8) payroll taxes,
- 9) federal income taxes, and
- 10) state income taxes.

TRIM can be instructed to call up any of the modules in any sequence, and a module may be called up multiple times to simulate different scenarios. The most important modules used to measure cost avoidance are the Child Support, AFDC/TANF, Food Stamps, and Medicaid

²¹ The Medicaid insurance values module calculates the insurance value of Medicaid eligibility after the Medicaid module determines Medicaid eligibility.

modules. However, TRIM could be used to estimate cost avoidance to other programs, such as the SSI program and subsidized housing programs.²² TRIM3 will contain a child care module that imputes child care costs and the effects of subsidies on demand for child care. Child care issues are important to the issue of cost avoidance because increasingly non-custodial parents are required to pay reasonable child care expenses for custodial parents who enter the labor force. Reliable and affordable child care has been cited as one of the main obstacles keeping low-income, single mothers from entering the labor force. Entry into the labor force has obvious cost avoidance implications.

TRIM is primarily a static model. It simulates outcomes for a fixed population and does not model changes in people's behavior that might occur as the result of policy changes. However, as mentioned above, researchers at the Urban Institute have conducted exploratory work to incorporate labor supply behavior into TRIM3. Such a feature would allow researchers and policymakers to simulate how labor force participation and hours worked might change if child support payments change or if transfer program guidelines change. Also, incorporating a labor supply/labor demand component into the model could allow researchers the ability to study how changes in national economic conditions could affect both child support collections and cost avoidance.

The main behavioral functions in the current version of TRIM are participation functions. These functions determine which of the eligible households will choose to participate in public welfare programs. Parameters describing the probability that certain events will occur were estimated using logistic regression analysis. The probability of an event occurring is determined for each household using the estimated logit model parameters and the household's characteristics. For example, a logit equation is used to estimate the probability that an AFDC/TANF-eligible household with given characteristics will actually participate in the program. One of the most important explanatory factors determining the probability of program participation is the expected level of benefits. The calculated probability of program participation is compared to a randomly generated number between 0 and 1, and the household is counted as a program participant if the estimated probability of participation is greater than the randomly generated number. The number of households simulated to participate in a program is weighted and the weighted aggregate number is compared to published statistics. If the total simulated number of program enrollees differs significantly from published counts, then the model is "aligned" to agree with the published statistics. The Food Stamps module, like the AFDC/TANF module, assumes that some households who are eligible for food stamps will choose not to participate.

The Medicaid module determines eligibility for Medicaid. All individuals who are eligible for Medicaid are assumed to enroll in the program. The Medicaid module does not model the likelihood that a child will receive health insurance benefits through a non-custodial parent. This means that TRIM cannot estimate Medicaid cost avoidance through third party payments.

Analyses that use TRIM have many of the advantages over alternative cost avoidance methods discussed in the previous section. Specifically, household level analyses allow one to study the distributional effects of proposed policy changes and identify winners and losers under the new

²² TRIM simulates rents paid and subsidies received by persons living in public or subsidized housing.

policy. TRIM can capture interactions between transfer programs and identify secondary and tertiary effects. The model is sufficiently flexible to analyze a wide range of issues, and the marginal cost to simulate outcomes for different policy scenarios is relatively low when the model is called upon to analyze a program for which a module has already been developed. In addition, TRIM can be used to simulate outcomes in future years by “aging” the data to reflect the expected characteristics of the population in future years.

Data

The Urban Institute’s most recent version of the microsimulation model (TRIM3) uses a March/April matched file from the 1996 CPS to conduct child support analyses. (TRIM2 relied on the March/April matched file from the 1990 CPS.) The annual March survey asks detailed questions regarding annual household income during the year prior to the survey, while the April survey contains questions regarding child support.

TRIM2 uses both actual data on households as reported in the CPS and imputed data. Imputed data is sometimes used for several reasons. First, the CPS does not contain data on several key variables used in the analyses, such as child support payments by non-custodial parents and award amounts. Second, imputations can be used to correct for underreporting (as is the case with child support income reported in the CPS). Third, imputed data may be necessary to simulate the effects of alternative scenarios.

F. Summary

Microsimulation has been, and continues to be, an important tool for policy analysis. A small number of published studies by the Urban Institute and the CBO have used the Urban Institute’s TRIM model to measure cost avoidance at the national level. Microsimulation has several significant advantages over other approaches—including the ability to analyze the distributional effects of IV-D program policies, the flexibility to measure child support under alternative CSE scenarios, and the ability to incorporate behavioral effects. The main disadvantages of microsimulation compared to other approaches are the stringent data requirements and the high cost of developing new models. Currently, TRIM is the only major microsimulation model with the capability to measure cost avoidance.

8. ASSESSMENT OF USING ADMINISTRATIVE DATA TO ESTIMATE CHILD SUPPORT COST AVOIDANCE

Information in state IV-D program case files and other administrative databases potentially provides a rich source of data for measuring cost avoidance. In this section we review the efforts of three states (Iowa, New York, and Washington) that recently used administrative data to estimate cost avoidance. Cost avoidance studies using data from Iowa and Washington were conducted, respectively, by Garasky et al. (1999) and Formoso (1999), who were subcontracted by The Lewin Group.²³ New York's cost avoidance work has focused on Medicaid costs. We conclude this section with a discussion of the strengths and limitations of using administrative data, relative to other data sources, to estimate cost avoidance.

A. Child Support Enforcement Cost Avoidance: Evidence from Iowa

Garasky et al. use state administrative data to estimate AFDC²⁴, Food Stamp, and Medicaid program expenditures recouped or avoided in Iowa as a result of the IV-D program. The population studied includes (1) families that currently participate in both the IV-D and AFDC programs, and (2) families not currently receiving public assistance but who are or previously were part of the IV-D program.

The data used for this study were collected by Iowa's Department of Human Services in collaboration with Mathematica Policy Research, Inc., Iowa State University, and various state agencies. This ongoing data collection effort, known as the Iowa Data Linkage Project (IDL), involves the merging of program administrative files of individuals who participated in the IV-D program, AFDC, Food Stamps, or Medicaid. The merged database contains information on child support awards and receipts, welfare program participation, benefit amounts, and employment data from the Iowa Workforce Development (IWD) Department. The IDL consists of quarterly files linked longitudinally. The file analyzed by Garasky et al. covers the period April 1993 to March 1996.

The authors use a microsimulation approach to predict what AFDC and Food Stamp awards would have been if no child support had been collected in Iowa. The authors compare these predictions to actual public assistance expenditures and attribute the difference between actual

²³ In March 1998, the Federal Office of Child Support Enforcement invited states to participate in a study (as subcontractors to The Lewin Group) to estimate cost avoidance using state administrative data. Iowa and Washington were selected because they had ongoing efforts to collect and use administrative data to study cost avoidance, and they proposed innovative ways to use the data to estimate cost avoidance. Funding for Garasky et al. was also provided by the Iowa Department of Human Services Bureau of Collections. The state of Washington helped fund the work by Formoso. Copies of the Garasky et al. and Formoso reports are available from the authors. Information on how to contact these authors is provided in the acknowledgements page at the beginning of this report.

²⁴ The AFDC program in Iowa was called the Family Investment Program (FIP) from October 1993 until it was replaced by TANF.

and predicted expenditures to CSE. The simulations replicate program policies that existed during the analysis period, FY 1994 and FY 1995, and do not reflect current policy.

The authors' principal findings (in 1995 dollars) are the following.

- For *current* AFDC participants, approximately \$0.79 in AFDC costs were avoided *per dollar in child support collected* by the IV-D program in both 1994 and 1995. In addition, Medicaid and Food Stamp cost avoidance were approximately \$0.07, so total public assistance costs recovered or avoided was \$0.86 per \$1.00 in child support collected in both 1994 and 1995.
- For *current* AFDC participants, approximately \$1.22 (in 1995) to \$1.41 (in 1994) in public assistance costs were recovered or avoided *per dollar expended by the IV-D program*.
- For IV-D program participants who did *not* participate in AFDC during the entire analysis period, approximately \$0.07 in AFDC costs, \$0.13 in Food Stamp costs, and \$0.40 in Medicaid costs were avoided *per dollar in child support collected* by the IV-D program in 1994. Thus, approximately \$0.60 in public assistance was avoided per dollar in child support collected by the IV-D program. This number declined to \$0.55 in 1995.
- For *former* AFDC participants (not currently on AFDC), approximately \$0.22 in AFDC costs, \$0.08 in Food Stamp costs, and \$0.44 in Medicaid costs were avoided *per dollar in child support collected* by the IV-D program in 1994.²⁵ In total, approximately \$0.74 in public assistance was avoided per \$1.00 in child support collected by the IV-D program in 1994. This number declined to \$0.63 in 1995.

This study makes several important contributions to our knowledge of cost avoidance. First, although the data used in the analysis are pre-TANF, the findings are much more recent than findings from other studies. Second, cost recovery and cost avoidance are estimated by relevant population (i.e., AFDC participants and non-AFDC participants) and by program (i.e., for AFDC, Food Stamps, and Medicaid). This detailed breakdown provides researchers and policymakers with important parameters that can be used make simple estimates of cost avoidance for other states. Finally, Garasky et al. contribute to the methodology for estimating cost avoidance.

The authors discuss several limitations of their study. First, the method used to estimate cost avoidance likely overstates cost avoidance attributable to the IV-D program. The method used compares actual public assistance costs to those predicted if child support collections were zero. However, some child support would be paid in the absence of a IV-D program.

Second, the authors adjust downward their estimates of cost avoidance to account for the fact that not all eligible families participate in a program. However, to do this the authors use population non-participation rates instead of calculating family-specific participation rates. This could bias downward the estimates of AFDC and Food Stamps cost avoidance if program

²⁵ Former AFDC participants are those who participated in the program prior to the analysis year, but not during the analysis year.

participation is directly correlated with the expected level of benefits. That is, eligible households with the high award amounts are more likely to apply for benefits than households with low award amounts.

Third, data limitations introduce some error into the cost avoidance estimates. For example, limited income and asset information reduced the authors' ability to accurately identify families who would be eligible for program assistance and to estimate expected award amounts in the absence of child support. Likewise, lack of data on actual Medicaid expenditures forced the authors to make simplifying assumptions—such as using average Medicaid expenditures per child and per adult enrollee to estimate Medicaid cost avoidance.

B. The Effect of Child Support and Self-Sufficiency Programs on Reducing Direct Support Public Costs: Evidence from Washington

Formoso uses administrative data to analyze the effect of CSE on AFDC program participation and costs in Washington for two cohorts of custodial adults. The first cohort consists of adults who used AFDC during the fourth quarter of 1993, and the second cohort consists of adults who used AFDC during the fourth quarter of 1995. The analysis was conducted using a longitudinal database that contains information on individual welfare history starting two years prior to the cohort selection quarter and continuing through the first quarter of 1997.

The approach used by Formoso is quite different from that used in other studies. Formoso first categorizes each custodial household as one with “good” collections, “poor” collections, or no collections. Households with a child support order and where total arrears are less than twice the order amount fall into the “good” category. The “poor” category consists of households enrolled in the IV-D program but who either have no support order or who have an order but total arrears are at least twice the order amount. The third category, no collections, consists of custodial households that are not enrolled in the IV-D program.

Next, Formoso estimates a series of multivariate logistic regressions to isolate the effect of child support collections on AFDC participation while controlling for additional factors that influence welfare participation—such as client characteristics, welfare history, location, and participation in the Job Opportunity and Basic Skills (JOBS) program.²⁶

Formoso's principal findings are the following.

- CSE was more effective at reducing public welfare expenditures when the custodial parent participated in the JOBS program.
- Good CSE collections had little impact on welfare exit rates, but appeared to lower welfare recidivism.

²⁶ JOBS was the program authorized by the Family Support Act of 1988 to provide education and training to AFDC recipients. The program ended with enactment of PRWORA.

- Cost avoidance is relatively modest.²⁷ For the 1993 cohort, cumulative AFDC payments from the first quarter of 1994 through the first quarter of 1997 were approximately \$900 less per parent with good child support collections relative to parents with no child support collections.

The main contribution of this study to the literature on cost avoidance is the innovative methodology used. Formoso isolates the effect of child support on AFDC participation while controlling for various household factors that could affect participation.

The study does have several limitations.

- First, households in the different child support collection categories could be systematically different in ways not captured in the model but that are correlated with AFDC participation and support collections. For example, if factors such as employment status or educational attainment of the custodial parent are positively correlated with child support collections and negatively correlated with AFDC participation, then the omission of these factors from the regression models could lead to an overestimate of the effect of child support on AFDC participation.
- Second, AFDC eligibility is determined by a complex set of guidelines that evaluate a household's financial situation. Although this analysis controls for factors that could affect the households' financial situation (e.g., race, gender, disability status, earnings history), information on the households' current earnings and assets is omitted.
- Third, the interaction of JOBS and CSE in this analysis may limit the extent to which the findings can be generalized to states without programs similar to the JOBS program. Most states currently emphasize a "work first" approach rather than education or training.
- Finally, in this type of analysis it is difficult to quantify cost avoidance in terms that are comparable with other studies (e.g., costs avoided per dollar of child support collected).

C. Calculating Medicaid Cost Avoidance: Evidence from New York

New York's IV-D and Medicaid programs are collaborating to develop an automated system to increase the percentage of children in the IV-D system who receive medical insurance from the non-custodial parent.²⁸ This new system has the potential to dramatically increase Medicaid cost avoidance attributed to the IV-D program, although current Medicaid cost avoidance in New York is relatively small. In this section we provide a brief description of work done to date to

²⁷ Formoso's analysis does not include estimates of cost recovery.

²⁸ We appreciate the assistance of Lee Sapienza (New York State Office of Child Support Enforcement) and John Brunelle (New York State Department of Health, Office of Medicaid Management) who are leading New York's effort to estimate Medicaid cost avoidance and who provided information on New York's CSE and Medicaid program.

estimate Medicaid cost avoidance in New York. Then, we describe efforts New York is undertaking to develop a system that will automate the issuance of medical support executions²⁹.

New York estimates that in FY 1997-98 approximately \$73.96 per month in Medicaid costs was saved for every Medicaid eligible child who was covered under the insurance policy of their non-custodial parent (Table 8-1). This estimate is based on the difference between average, monthly Medicaid expenditures (\$130.26) for children on TANF who had no other form of medical insurance and average, monthly expenditures (\$56.30) for children on TANF who had other medical insurance. These estimates are based on the population of TANF participants under age 21 who were eligible for Medicaid.³⁰

Only 9,663 of 435,742 Medicaid-eligible children had private insurance during this fiscal year. On average, these 9,663 children were eligible for Medicaid for 8.9 months. Having private insurance for these children resulted in Medicaid costs avoided of approximately \$6,361,000 during FY 1997-98.³¹

Table 8-1 Medicaid Costs For TANF Participants Under Age 21, FY 1997-98

Categories	Medicaid Eligibles	Total Medicaid Expenditures	Ave. Months of Eligibility	Ave. Cost Per Eligible Month	Estimated Monthly Savings
Medicaid only	426,079	\$514,064,773	9.3	\$130.26	NA
Medicaid and other insurance	9,663	\$4,834,529	8.9	\$56.30	\$73.96

Nearly 100 percent of new child support orders in New York involving IV-D participants contain a medical support order. However, only a small percentage of children in the system have medical support orders (three percent) and an even smaller percentage have medical coverage from a private source (one percent). Of those IV-D participants on public assistance, approximately 12 percent have a medical support order and two percent have medical coverage from a private source (see Table 8-2).

The Medicaid support orders require non-custodial parents to include non-resident children in employer-sponsored medical insurance plans if the cost is “reasonable.” However, the courts have not defined what are “reasonable” costs. Also, medical support orders are not rigorously enforced. Program officials cite inadequate resources for enforcing medical support orders as a

²⁹ The term “executions” means to carry out the court order and involves notifying the private employer that an employee has a medical support order.

³⁰ A large proportion of this population likely are children who participate in the IV-D program. However, this population also contains (1) children who live with both parents, and (2) young mothers under age 21.

³¹ Medicaid cost avoidance is calculated by multiplying (9,663 children)×(8.9 months/child)×(\$73.96 savings/month).

major reason for the small percentage of children covered under the insurance policy of their non-custodial parent.

Table 8-2 Children In the IV-D Program With Medical Support Orders and Private Insurance, January 1999

	Children in the IV-D Program	On Public Assistance		
			Have Medical Support Order	
				Have Other Insurance ¹
Cases	1,043,403 ²	298,200	34,479	6,613
Children ³	1,669,445	477,120	55,166	10,581
Percent of total	100%	29%	3%	1%
Percent on public assistance	NA	100%	12%	2%

¹ Based on estimates for FY 1997-98.

² The majority of these cases are former TANF cases.

³ Estimates based on approximately 1.6 children per case.

Because such a small percentage of IV-D participants have medical insurance from non-Medicaid sources, there is considerable potential for increased Medicaid cost avoidance. With approximately 466,539 IV-D children on public assistance without private insurance, and assuming an average Medicaid eligibility length of 8.9 months and \$73.96 per month in savings when non-custodial parents provide private medical insurance for their children, Medicaid cost avoidance could potentially soar. If only half of the 477,120 children on public assistance received private medical insurance through a non-custodial parent, then medical cost avoidance would increase from its current level of \$6.4 million to over \$157 million. The true upper bound of potential Medicaid savings is unknown because many non-custodial parents do not have the ability to provide private medical insurance to their children. Also, it is likely that many non-custodial parents participate in health maintenance organizations (HMOs) that do not provide healthcare services in the locality of the child (e.g., non-custodial parents living in a different state than his or her children). In addition, the children with health insurance may be systematically different from the kids without health insurance which makes it difficult to generalize the savings from one group of children to another group of children.

New York is working to capture this potential Medicaid cost avoidance by automating its system to enforce medical support orders. The state currently is working to gain administrative authority to enforce medical support orders through the issuance of medical support executions that are automatically sent to the employers of non-custodial parents along with executions for wage withholdings. Thus, medical support enforcement would be incorporated into the new-hires reporting process.

One issue that must be resolved prior to implementing the new system is to clarify the laws regarding when parents must provide insurance. The current law requires non-custodial parents with a medical support order to provide insurance to their children if the costs are “reasonable.” Department of Health and Human Services regulations define “reasonable” as having health

insurance available through the employer—no matter what the cost of coverage. However, since such cost is often clearly unreasonable, states often will not enforce the regulations.³²

Some of the medical support orders mandate cash payments from the non-custodial parent to pay part of the healthcare costs of the custodial parent and children. New York is considering requiring non-custodial parents to pay Children's Health Insurance Program (CHIP) premiums.³³

D. Strengths and Limitations of Administrative Data

State administrative files provide a rich source of information that can be used to estimate cost avoidance. Below we summarize the strengths and limitations of this data source relative to using survey data.

Strengths

- The main benefit of using administrative data is the ability to make state level estimates of cost avoidance. National surveys such as Current Population Survey (CPS) and Survey of Income and Program Participation (SIPP) are of insufficient size to make reliable state level predictions for all but the largest states.
- Another benefit of using administrative data is the ability to create longitudinal analysis files that track program participation, award amounts, child support collections, and household characteristics over time. Longitudinal data support a wider range of analyses than do cross-sectional or panel data into the effect of child support on welfare participation and parental behavior.
- Because states are already collecting (in electronic format) much of the data required to estimate cost avoidance, it is relatively inexpensive to merge data in administrative systems to create a rich analysis file.
- Data in administrative files are, presumably, more accurate than survey data that often rely on the survey participants' accurate recall of past events.

³² The Secretaries of the Departments of Health and Human Services and Labor recently formed an advisory group, the Medical Child Support Working Group, to study the elimination of barriers to medical child support. The working group was established by the Child Support Performance and Incentive Act of 1998. One of the group's purposes is to design and implement a standardized medical support notice that state child support enforcement agencies would use to notify employers that an employee has a medical support obligation.

³³ The Balanced Budget Act of 1997 created a new children's health insurance program (CHIP) under Title XXI of the Social Security Act. This new title enables states to initiate and expand health insurance coverage for uninsured children with funding provided by the federal government. In New York, families with incomes below 185 percent of poverty can receive health insurance by paying a modest premium.

Limitations

- One serious limitation of administrative data is that they cover only those households that have participated in the “system.” Thus, households that are at risk of entering the system are not included in the data.
- Another limitation of administrative data is that key information (e.g., data on household assets and income) might be unavailable.
- Another limitation of administrative data is that households that move out of state are often lost from the system. One implication of this missing data is that it potentially limits the ability to generalize the findings to the entire population of custodial households, especially if moving from the state is correlated with the payment of child support.
- Merging state administrative files presents several logistical challenges. Such projects require cooperation from multiple state administrative organizations and often require long-term, data sharing commitments. In addition, the effort requires an enormous amount of computer storage and processing capacity to merge and store the data. Data collected on a more frequent basis (e.g., monthly as opposed to quarterly or annually) are of more value for research purposes, but increase the amount of computer resources needed.
- Data from administrative files, like survey data, do not allow one to estimate child support collections that would occur in the absence of the CSE system.

9. SUMMARY AND RECOMMENDATIONS

In the preceding chapters we summarize the literature on a wide range of topics related to measuring cost avoidance. In this chapter we first summarize the major findings from this study. Then, we discuss gaps in the literature and present recommendations on the most promising and cost-effective strategies for expanding our knowledge about child support cost avoidance.

A. Summary of Major Findings

1. Estimates of cost avoidance

Several studies present estimates of cost avoidance, but differences in methodology, populations analyzed, and assumptions by the authors make the estimates difficult to compare and limit the ability to generalize results. Furthermore, these studies suffered from numerous data limitations and methodological problems, so the estimates come with numerous caveats and should be interpreted with caution. Wheaton and Sorensen (1998) estimate that child support collections result in approximately \$396 (in 1996 dollars) in annual cost avoidance per child support case. Texas (1997) estimates that child support collections resulted in cost avoidance of approximately \$387 to \$907 (in 1996 dollars) per child support cases in Texas, or approximately \$1,614 to \$3,786 per child support case where the Texas Child Support Division's efforts had ended or precluded welfare payments. The estimates from both studies count cost avoidance (and AFDC cost recovery) for AFDC, Food Stamps, and Medicaid.

2. Potential cost avoidance

Although realized cost avoidance is relatively modest under the current CSE system, potential cost avoidance could be quite large. IV-D program activities to raise low award amounts (e.g., periodic review and adjustment) and increase compliance with support orders (e.g., improved enforcement mechanisms) could lead to less reliance on public assistance programs. However, the decline in welfare rolls resulting from TANF policies that place time limits on welfare benefits and prolonged economic growth change potential TANF cost avoidance. Cost avoidance is also limited by the non-custodial parents' ability to provide support. To the extent that the fathers associated with the poor mothers receiving public assistance are themselves poor, cost avoidance will be limited.

Evaluations of several review and adjustment demonstrations that reviewed and updated support orders found that periodic review and updating of support orders generated approximately \$1.62 in cost recovery and AFDC cost avoidance to the federal government and \$5.75 in cost recovery and AFDC cost avoidance to the states for each \$1.00 spent to modify support agreements.

Compliance with support orders traditionally has been quite low. Research on compliance finds that marital status and earnings of non-custodial parents are significant predictors of compliance with support orders. Also, divorced fathers are much more likely than never-married fathers to pay. Schexnayder et al. (1998) use a multivariate regression approach to determine what factors increase the probability of support payments. They find that the probability of compliance increased by 0.81 percentage points for every \$100 increase in quarterly earnings.

Several studies estimate the cost avoidance implications of specific IV-D program activities. Table 9-1 summarizes the expected percent reduction in welfare program expenditures from one study of routine income withholding and four studies where compliance is hypothesized to be 100 percent.

Table 9-1 Pre-TANF Estimates of Potential Cost Avoidance from Specific IV-D Program Activities

Study	Child Support (CS) Enforcement Activity	Percent Change in Expenditures		
		AFDC	Food Stamps	Medicaid
Klawitter and Garfinkel (1992)	Routine income withholding of CS awards	-7.0	N/A	N/A
McDonald, Moran, and Garfinkel (1983)	Collection of 100 percent of existing CS orders in Wisconsin	-7.0	N/A	N/A
Robins (1986)	Collection of 100 percent of existing CS orders nationally	-8.0	N/A	N/A
Bergman and Roberts (1987)	Collection of 100 percent of existing CS payments nationally	-9.7	NA/	N/A
Sorensen and Wheaton (1994)	Support orders and collection of CS orders for 100 percent of cases	-20.0	-10.0	-2.0

3. Child support policy and behavior

IV-D program activities that increase child support collections are hypothesized to reduce out-of-wedlock childbearing, increase the educational attainment of children, and reduce the labor supply of non-custodial parents. CSE has ambiguous effects on the propensity of parents to divorce, the propensity of single, custodial parents to remarry, and on the labor supply of custodial parents. Thus, the effects of CSE on the propensity to remarry and the labor supply of custodial parents cannot be determined by theory alone.

Several empirical studies find limited evidence that CSE has a small deterrent effect on out-of-wedlock childbearing and divorce, and child support may increase the educational attainment of children who do not live with both parents. Also, irregularity of child support payments increases the probability of remarriage. Little research has been conducted on the effect of child support and CSE on the labor supply behavior of custodial and non-custodial parents. Table 9-2 summarizes the estimated effects of child support enforcement on welfare-related behavior.

Table 9-2 Pre-TANF Estimates of the Effects of CSE on Welfare-Related Behavior

Behavior	Child Support (CS) Variable	Behavior Variable	Study
Divorce		Percentage Change in Probability of Divorce	Nixon, 1997
	+1% in CS Collection Rate	-0.09	
	+1% in CS Avg Collections	-1.1	
Remarriage		Percentage Change in Remarriage Probability	Folk et al., 1992
	Add'l \$1,000 in CS Payments	+3.0 to +5.0	
Nonmarital Childbearing		Percent Non-marital Births	Case, 1996
	Mandatory Withholding of CS from Wages	-0.54 – 3.12	
Educational Attainment		Change in Home Cognitive Test Scores	Knox, 1996
	Add'l \$100 in CS Payments	+0.1 points (Sample mean test score: 96.96)	
		Percentage Change in Probability of Repeating a Grade or Dropping Out	Hernandez et al., 1995
	Add'l \$1,000 in CS Payments	-2.22	
Labor Supply		Change in Avg. Annual Hours Worked by Custodial Parent on Welfare	Hu, 1996
	Add'l \$1,000 in CS Payments	+9.0 to +53.0	
	Add'l \$1,000 in CS Payments	-54.0	Graham, 1990

4. Microsimulation models

Microsimulation—simulating outcomes using household level data—is one of several approaches to estimating cost avoidance. Microsimulation models compare household income, assets, and demographic characteristics to welfare program guidelines to simulate welfare program eligibility, participation, and award levels at the household level. There are several microsimulation models available, but only the Urban Institute’s Transfer Income Model (TRIM) is designed for calculating national estimates of child support cost avoidance.

Microsimulation has several strengths relative to the “aggregate data” approach (which is the approach most often used in the published literature). The benefits of simulating household outcomes include the ability to (1) determine the distributional effects of IV-D program policies, (2) determine the secondary and tertiary effects on welfare program expenditures, and (3) incorporate behavioral effects into the model. The main disadvantages of microsimulation, compared to the aggregate data approach are (1) the more stringent data requirements, and (2)

the high level of maintenance to constantly update both state and federal program guidelines and tax laws.

5. Data sources

Cost avoidance has been measured both using survey data and using state administrative data. Each source has its strengths and limitations. Program administrative files have become a rich source of data with which to estimate cost avoidance. As state programs computerize their administrative files, it becomes more feasible to link child support information on a household to information on the household's history of welfare program participation and employment. Linked administrative files can provide researchers much of the data to analyze the complex relationship among IV-D program activities, child support collections, public assistance expenditures, and the behavior of custodial parents.

Data collected by the IV-D program and welfare agencies does suffer from several shortcomings. For example, case files often lack pertinent information for measuring cost avoidance (e.g., detailed data on household income, assets, living arrangements, and demographic characteristics). When case files do contain this information, it is often for only one point in time (generally at case opening). However, a household's income and assets, and thus eligibility for public assistance and award amounts, fluctuate over time. Also, data on those individuals who are not part of the IV-D program, but who would be in the absence of child support, is not available in administrative records.

National surveys such as the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP) collect information on both welfare program participants and non-participants, and thus can be used to measure cost avoidance for those households at risk of welfare program participation. National survey data is available at low cost to researchers estimating cost avoidance. However, these survey data have several limitations including: (1) insufficient data on key variables and insufficient sample size in most states to make reliable state level predictions, (2) national surveys possibly undercount the poor and thus welfare recipients, and (3) many of the values for key variables in the CPS and SIPP that are necessary to measure cost avoidance are imputed.³⁴

6. Cost avoidance estimates from three states

Three states (Iowa, New York, and Washington) recently used administrative data to estimate cost avoidance.

- Garasky et al. estimate substantial cost avoidance in 1994 and 1995 for Iowa. They estimate that \$0.86 (in 1995 dollars) in welfare program expenditures are recovered or avoided per child support dollar collected on behalf of *current* AFDC households; \$0.74 in welfare program expenditures are avoided per child support dollar collected on behalf of *former*

³⁴ The CPS and SIPP contain imputed values for many missing data. Imputed values are estimates based on the relationship between the variable with the missing value and other variables. For information on the methodology used to impute values in the SIPP see Lloyd (1998).

AFDC households; and \$0.58 in welfare program expenditures are avoided per child support dollar collected on behalf of IV-D cases *not in* AFDC.

- Formoso estimates that among two cohorts of adults who used AFDC during the fourth quarter of 1993 and 1995, respectively, CSE was more effective at reducing public welfare expenditures when the custodial parent participated in the Job Opportunities and Basic Skills (JOBS) training program. Collection of child support had little impact on welfare exit rates, but appeared to lower welfare recidivism. Finally, for the 1993 cohort, cumulative AFDC expenditures from the first quarter of 1994 through the first quarter of 1997 were approximately \$900 less per parent with modest child support collections relative to parents with no child support collections.
- In New York, if all Medicaid-eligible children with a non-custodial parent received private medical insurance through the non-custodial parent, then Medicaid savings from medical support orders potentially could soar from the current level of approximately \$6.4 million in FY 1997-98 to over \$313 million annually.

7. Data and methodological limitations

The cost avoidance literature suffers from numerous data and methodological limitations. Recent and significant changes in government programs and policies, in the demographics of IV-D and welfare cases, and in the economy make much of the previous research on cost avoidance obsolete. Almost all of the studies that we reviewed were conducted prior to TANF or use data from the period prior to TANF. Consequently, the empirical findings from these studies may not be valid in the TANF environment, which limits their usefulness for policy makers and program administrators.

Studies estimating cost avoidance and recovery measure the impact of IV-D program activities on only three major programs (AFDC, Food Stamps, and Medicaid). Consequently, the extent of the effect of IV-D program activities on smaller programs (e.g., Low-Income Housing Assistance; Special Supplemental Nutrition Program for Women, Infants, and Children; and the Low-Income Home Energy Assistance Program) is unknown.

Very few of the studies we reviewed incorporate the expected impact of IV-D program activities on program administrative expenses. Sorensen and Wheaton (1994) and CBO (1996a) are two of the exceptions. Program administrative expenses would decline if fewer households were dependent on welfare, and the cost of program administration can be substantial. During the past decade, annual program administration costs for AFDC and Food Stamps have ranged from 13 percent to 20 percent of public assistance benefits paid out by the two programs. In addition, there is a cost to increased enforcement. To obtain a more accurate estimate of the true costs of the IV-D program one should estimate the net effect of enforcement activities on program administrative costs.

Estimates of child support cost avoidance in the literature are based on the expected increase in public welfare expenditures if there were no child support payments, relative to current child support collections. However, in the absence of the IV-D program there would continue to be

some collections, although the amount is unknown. Consequently, current cost avoidance estimates may overstate cost avoidance attributed to the IV-D program.

B. Recommendations for Future Research

The majority of the studies we reviewed provide some information that is relevant to estimating cost avoidance; however, none of the studies are as comprehensive as one would desire. Studies that address the following would be useful to help develop appropriate cost avoidance methodologies.

1. Post-AFDC estimates of cost avoidance. Much of the literature is based on data that are now more than 10 years old. Over the last decade numerous changes have occurred that make the findings based on these older data obsolete. The literature would benefit from a series of studies that would employ similar methodologies to previous studies, but would use more recent data to reflect changes in the economy, changes in child support and welfare caseloads, and changes in welfare rules (i.e., the replacement of AFDC with TANF). Also, these studies should include a broader definition of welfare programs to include programs in addition to TANF, Food Stamps and Medicaid.
2. Compliance with child support orders. The research completed to date focuses on the marginal impact of changing one or more policies on child support collected. Additional research is needed to determine the overall effect of the IV-D program on collections and the associated reductions in public assistance and Medicaid. To meet the needs of policy makers and program administrators, additional research is needed on the effectiveness and cost efficiency of specific IV-D program activities and tools regarding compliance with child support awards. Additional research is also needed to determine the deterrent effect of IV-D program activities on households outside the IV-D program. Bartfeld et al. (1997) suggest that further research should focus on the underlying reasons for noncompliance, particularly among never-married fathers. More research is required to determine whether the low compliance rates among never-married fathers is related to the father's level of involvement with his children or his ability to pay child support or both.
3. Child support review and adjustment demonstration efforts. Current studies of child support demonstration efforts do not address whether the effectiveness and cost efficiency of IV-D program activities to modify support awards differ by type of case (e.g., cases where the non-custodial parent does not pay any support, cases where partial payments are being made, and cases where child support is paid in full). This information would help CSE agency administrators to better target limited resources for modifying support orders.
4. Marriage behavior. Research on the effect of child support on marriage behavior has focused on divorce and remarriage. However, an increasing proportion of the households on public assistance and households participating in the CSE system are headed by never-married mothers. Furthermore, never-married mothers are less likely than previously married mothers to receive a support award and less likely to actually receive support that is awarded. Thus, there is a need for additional research on the effects of IV-D program activities on the decision of unwed couples to separate and unwed mothers to marry following separation. Unfortunately, there is little data collected regarding cohabitation, motherhood, and child

support payment information. Thus, development of a database with such information would stimulate additional research in this area.

5. Childbearing. More research is required before the impact of CSE on cost avoidance, via its effect on childbearing, can be determined. The empirical research suggests that more aggressive CSE may have a small negative impact on birthrates among unwed mothers. However, these studies do not investigate the issue of cost avoidance when birth rates are reduced. In addition to empirical estimates of the implications of reduced childbirth for cost avoidance, the theoretical relationships need to be further developed.
6. Children's educational attainment. Educational attainment has cost avoidance implications across a variety of domains. Higher educational attainment likely has implications for future earnings, childbearing, divorce, participation in the child support program, participation in government welfare programs and in the generation of tax revenues. Additional research in each of these areas would help provide comprehensive estimates of the cost avoidance implications of education.
7. Labor market participation. Because of data availability and public policy interests, the literature on child support and labor supply has focused on the labor supply behavior of custodial mothers. Several studies estimate the relationship between support income and the decisions regarding labor force participation, but do not attempt to estimate the cost avoidance implications of these decisions. Future research focusing on the cost avoidance implications of labor supply decisions would contribute to the methodology to estimate cost avoidance. The implications for welfare participation, long-term welfare dependency, and the implications for tax revenues and the Earned Income Tax Credit program are of particular interest. Due to a lack of data on non-custodial parents, little research exists on the effect of IV-D program activities on the labor supply of non-custodial parents. Of particular interest is the impact of periodic review on the labor supply of non-custodial parents. Also, additional research is needed on the labor supply impact of programs such as automatic withholding for child support, programs that allows the IV-D program to more quickly identify the employer of non-custodial parents, and long-arm policies that allow states to garnish the earnings of delinquent non-custodial parents in other states.
8. The effects of CSE on government expenditures and revenues. Cost avoidance is only one component of the total effect of CSE on the federal and state budgets. A comprehensive measure of the financial benefits of child support collections should include more than cost avoidance—such as including the potential effect on tax revenues and program administrative costs.
9. Medicaid cost avoidance. Through the enforcement of medical support orders, private insurers will incur the expense of some medical costs currently assumed by Medicaid.³⁵ The effects of this transfer are unknown. This could result in higher healthcare insurance premiums and lower tax revenues. The implications of this issue need to be more fully investigated. Additionally, the effect of increased private health insurance coverage on

³⁵ In New York this amount could potentially be \$313 million annually.

expenditures and child healthcare coverage under the new Child Health Insurance Program should be explored.

10. Methodological Issues. Many of the studies in the literature contain methodological problems that limit the ability to generalize and to compare results to other studies. Many of these problems are the result of data limitations. To increase the utility of future studies, such studies should do the following:

- Model potential behavioral changes of custodial and non-custodial parents in addition to the mechanical effects of child support on welfare program eligibility and award amounts.
- Employ sample sizes sufficient to produce reliable results that can be generalized to other populations or geographic locations.
- Seek to isolate collections that are generated as a result of IV-D program activities from collections that would occur even in the absence of such programs. Doing so would enable the production of cost avoidance estimates that do not overstate the effect of IV-D program activities (as the current estimates do) since they would include collections that would have been made in the absence of IV-D program activities.
- Estimate cost avoidance savings to the states and to the federal government.

Since the establishment of the Child Support Enforcement Program in 1975, researchers have made significant progress in developing the theory of how child support affects expenditures on a variety of public expenditures. In addition, significant progress has been made on developing the tools to estimate cost avoidance. The purpose of this study is to synthesize the theoretical and empirical literature on cost avoidance to develop a comprehensive and coherent framework to evaluate the intricacies of child support cost avoidance.

The child support system, public assistance programs, economic conditions, and the demographics of the population participating in the child support system are constantly changing. Thus, continuous research is required to update the empirical estimates of cost avoidance. Furthermore, additional research is required to expand our knowledge of the effect of child support on the behavior of parents and the well-being of children.

SECTION II: ANNOTATED BIBLIOGRAPHY

List of Studies Annotated

STUDIES ESTIMATING CHILD SUPPORT COST AVOIDANCE

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PURPOSE

The purpose of this section is to provide a more detailed summary and discussion of selected studies whose methodology or findings contribute to the literature on measuring child support cost avoidance. In the synthesis portion of this report, we place the findings from individual studies into a coherent framework for estimating cost avoidance. In this section we focus on the strengths and limitations of individual studies and discuss their contribution to the cost avoidance literature.

The list of studies annotated here is not intended to be comprehensive. Instead, the studies chosen for annotation were selected to provide a representative sample of the available literature. The inclusion or exclusion of a study from this annotated bibliography does not signify that the study is of particularly high or low quality. The studies annotated here vary widely as to their technical merit and the degree to which the findings can be generalized to the IV-D program and its populations.

One of the main limitations of nearly all the studies summarized here is that the period analyzed pre-dates TANF. Although many of the empirical estimates in these studies are obsolete, the methodology used and the general findings are instructive and relevant for developing new estimates of cost avoidance.

Many of the studies use sophisticated econometric techniques to estimate the effect of IV-D program policies and other factors on child support outcomes. The summaries presented here discuss the methods used in general terms.

The annotations are presented in roughly the same order that they are discussed in the synthesis. For each annotation we provide a brief description of the study, summarize the data and methods used, and discuss the principal findings and their implications for measuring cost avoidance.

STUDIES ESTIMATING CHILD SUPPORT COST AVOIDANCE

1. Evaluation of the Child Support Enforcement Program Final Report³⁶

Description

This report by MAXIMUS, Inc. examines cost avoidance for both AFDC and non-AFDC households participating in IV-D programs in selected states. However, because MAXIMUS was able to collect large amounts of data on non-AFDC households but little information on AFDC households, the major portion of this study is devoted to a discussion of cost avoidance for non-AFDC IV-D program cases. Non-AFDC IV-D cases are an important population to study because many in this population are at risk of AFDC/TANF participation.

This study was one of the first major studies of cost avoidance. Although many of the empirical findings are now obsolete, the major contributions of this study are its discussion of the data, methodological, and theoretical issues in estimating cost avoidance. While the authors calculate cost avoidance estimates for the national non-AFDC population, they devote a large portion of the discussion to explaining the reasons why IV-D program expenditures and measures of cost avoidance are expected to vary across states. The following table summarizes the period, geographic scope, population, and CSE components covered in this study.

Table 1-1. MAXIMUS Study Summary

Period covered	1979
Geographic scope	The study covers IV-D participants in California, Delaware, the District of Columbia, Michigan, New York, Tennessee, Texas, Utah, and Washington.
Population covered	The main population analyzed is IV-D program participants where the household was not on AFDC at the time of case opening.
Data source	Program case files
CSE component(s) analyzed	The authors estimate Food Stamps and AFDC cost avoidance.
Comparisons made	The authors compare average welfare program expenditures on households receiving child support to average expenditures on households not receiving child support.

³⁶ MAXIMUS, Inc. (April 1983). *Evaluation of the Child Support Enforcement Program Final Report*. Prepared for the Office of Research and Statistics, Social Security Administration, Department of Health and Human Services. Contract No. 600-82-0089.

Data and Methods

MAXIMUS analyzed household level data from IV-D program case files from a stratified sample of cases in Delaware, the District of Columbia, California, Michigan, New York, Tennessee, Texas, Utah, and Washington. In addition, the authors conducted site visits and interviewed IV-D program administrators. Much of the data obtained from the case files concerned the households' economic status at the time of case opening, household demographics, and whether the household participated in AFDC, Food Stamps and Medicaid at the time of case opening.

A financial rationale for expanding IV-D services to the non-AFDC population is to reduce the number of non-AFDC households who might apply for AFDC should income from other sources decline, and to reduce Food Stamp and Medicaid expenditures. The authors attempt to measure the impact of child support on non-AFDC households' eligibility for Food Stamps and Medicaid; probability of applying for AFDC, Food Stamps, and Medicaid; and on Food Stamps award levels.

The authors estimate Food Stamps and AFDC cost avoidance by comparing average welfare program expenditures on households that receive child support to average expenditures on households that do not receive child support. The main problem with this approach is that there are likely systematic differences between households receiving child support and households not receiving child support, and many of these differences are likely to be correlated both with the receipt of child support and the amount of public welfare benefits received. Thus, the approach used by MAXIMUS could result in biased cost avoidance estimates because it does not control for differences in family size, total household income, and other factors where the two groups may differ and that may be correlated with both the level of child support and public assistance received.

Another limitation of this approach, as discussed in the synthesis, is that it attributes all child support collections to the IV-D program. To estimate cost avoidance attributed to the IV-D program, it is necessary to determine the amount of child support collections that would be collected in the absence of the IV-D program.

Findings and Implications for Cost Avoidance

Many of the findings presented in this study demonstrate the demographic diversity in IV-D caseload across states. The authors find that differences in how states count IV-D program participants and measure child support collections complicate making meaningful comparisons of child support collections and cost avoidance across states. At the time of this study, some states enrolled all custodial households as IV-D participants while other states enrolled only those households on AFDC or that applied for IV-D program assistance. In states where all custodial households are counted as IV-D program participants, non-AFDC cases are more likely to involve non-custodial parents who would pay their support obligations in the absence of a IV-D program. It is also important to note that in 1979, the period covered by the study, substantially fewer non-AFDC cases were enrolled in the program than are currently participating in the IVD program. This may make the findings less relevant to today's IV-D case load.

The authors find that variation across states in the proportion of IV-D program participants who are non-AFDC participants can be explained by three factors: (1) the level of advertising of IV-D services to the non-AFDC population; (2) the existence of specific state and federal laws regarding the expansion of IV-D services; and (3) differences in reporting methodologies.

The following Table (1-2) contains estimates of AFDC and Food Stamp cost avoidance for households not participating in AFDC at the time of IV-D case opening. (The authors did not have sufficient information to calculate Medicaid cost avoidance.) MAXIMUS estimated cost avoidance only at three sites that had sufficient data to make the estimates. The authors estimate cost avoidance (in 1979 dollars) as the difference in average public welfare expenditures between those households receiving public assistance that did not receive child support and those that did receive child support. Their estimate of average savings to the Food Stamps and AFDC programs for new IV-D cases not in AFDC at case opening range from \$261 per year in Shelby County, TN, to \$445 per year in Monroe County, NY.

As discussed above, the usefulness of these findings is tempered by the concern that systematic differences exist between the population receiving child support and the population not receiving child support. Other factors that limit our ability to generalize these findings to the current IV-D program and population are (1) the study is dated, (2) the study involves relatively small samples of IV-D participants, and (3) data limitations restricted the authors to looking mainly at AFDC and Food Stamp cost avoidance among households not participating in AFDC at the time of enrollment in the IV-D program.

Table 1-2. Estimates of Annual Cost Avoidance For the Non-AFDC Caseload in the Child Support Enforcement Program, 1979 (in 1979 dollars)

	Geographic Location			
	Shelby County, TN	Wayne County, MI	Monroe County, NY	Total
Non-AFDC households at IV-D case opening				
1. Total in sample	191	256	228	675
2. Received public assistance during first year in program	89	33	54	176
3. Receiving public assistance and child support during first year of program	23	25	21	69
Average annual AFDC and Food Stamp expenditures				
4. Households not receiving child support during first year	\$1,300	\$1,683	\$1,948	\$1,528
5. Households receiving child support during first year	\$1,039	\$1,255	\$1,503	\$1,258
Estimated Cost Avoidance (per year)				
6. Per household receiving child support (row 4 minus row 5)	\$261	\$428	\$445	\$270

Source: MAXIMUS (1983), Tables A-III-19 and A-III-20.

2. Estimates of Cost Avoidance Attributable to Child Support Enforcement³⁷

Description

In 1985, the Office of Child Support Enforcement contracted with Advanced Sciences, Inc. (AS) and SRA Technologies (SRA) to (1) develop a methodology to estimate cost avoidance attributed to the IV-D program, and (2) develop national cost avoidance estimates. The authors calculate cost avoidance for the AFDC, Food Stamp, and Medicaid programs.

One of the main contributions of this study is the methodology used to estimate cost avoidance. Unlike the MAXIMUS study that compared average welfare expenditures for households not receiving child support to welfare expenditures for households receiving child support, this study uses a microsimulation approach that estimates welfare payments to households under two policy scenarios—when current child support income is included and when child support is excluded from total household income. Thus, instead of comparing public expenditures to two groups of custodial households the authors compare public expenditures to the same group of households but under different CSE scenarios. The following table summarizes the period, geographic scope, population, and CSE components covered in this study.

Table 2-1. Study Summary

Period Covered	1983
Geographic Scope	National
Population Covered	All households eligible for child support (unmarried with children under 18).
Data Source	Survey of Income and Program Participation (SIPP)
CSE components analyzed	The authors estimate AFDC, Medicaid, and Food Stamp cost avoidance.
Comparisons Made	The authors compare public welfare expenditures under two scenarios: (1) households receive current levels of child support, and (2) households do not receive child support.

Data and Methods

This study utilizes data from the Survey of Income and Program Participation (SIPP) to develop a national estimate of cost avoidance. The SIPP is an ongoing longitudinal survey that began in 1983 and is administered by the Bureau of the Census. The SIPP universe is the non-institutionalized resident population living in the United States. Each year, beginning in January, a new panel of the SIPP is started with a sample size of approximately 20,000 households. One quarter of the households are interviewed each month over a period of two and a half years.

³⁷ Advanced Sciences, Inc., and SRA Technologies (June 1987). *Estimates of Cost Avoidance Attributable to Child Support Enforcement*. Phase II final report prepared for the Office of Child Support Enforcement. Contract No. 600-85-0233.

Thus, each household is interviewed once every four months for a total of eight interviews. Households are asked a series of questions regarding their employment, income, assets, non-cash benefits from public assistance programs, and changes in household relationships during each of the four months preceding the interview. Consequently, the SIPP provides researchers with monthly household data covering up to 32 months.

The authors exclude from their analysis those households that are not eligible for child support (i.e., households without children under the age of 18, married couples, and widows). Certain households were dropped from the analyses of AFDC cost avoidance, Medicaid cost avoidance, and Food Stamp cost avoidance due to lack of data or for other reasons. The samples used to estimate cost avoidance to the AFDC, Medicaid, and Food Stamp programs contain 1,714 households, 1,670 households, and 1,935 households, respectively.

A major portion of this report is devoted to discussing the data, assumptions, and methodology used to calculate cost avoidance. The authors first develop an eligibility model to determine which households (or, in some cases, individuals) in their sample are eligible for AFDC, Food Stamps, and Medicaid both when child support is included and excluded from total household income.

The eligibility requirements for AFDC and Medicaid vary by state and can vary over time. Therefore, the authors develop a complex algorithm that determines a household's eligibility for each public assistance program based on the household's reported income and characteristics, the state in which the household resides, and the program eligibility rules that existed at the time of the survey. Program eligibility is determined for each household under two scenarios: (1) a baseline scenario that includes current child support payments in total household income, and (2) a hypothetical scenario that excludes child support from total household income. For households eligible for participation in either AFDC or Food Stamps under either of the two scenarios, the authors calculate the expected level of welfare expenditures that would be incurred.

The authors categorize households into one of the following four categories.

1. No Cost Avoidance. This category includes households that are ineligible for public assistance even if child support is excluded from total household income. It also includes households that remain eligible for Medicaid or AFDC when child support is included in total household income. All custodial households that do not receive child support are included in this category.
2. Eligibility Cost Avoidance. This category includes households that are ineligible for public assistance when child support income is included in total household income, but eligible for public assistance when child support income is excluded from total household income.
3. Decision cost avoidance. This category is identical to that of (2), except that these households choose not to participate in a public assistance program for which they are eligible.
4. Reduction in benefits cost avoidance. This final category applies only to the Food Stamps program. It includes households that remain eligible for Food Stamps when child support is included in total household income, but who qualify for lower Food Stamps allotments as a result of child support.

The authors conduct separate analyses for each of the three major welfare programs—AFDC, Food Stamps, and Medicaid. Cost avoidance is defined as the level of welfare payments to households if child support were not included in total household income minus current welfare payments. It is important to note that the cost avoidance definition used by the authors does not include cost recovery (i.e., child support retained by the state to offset the cost of AFDC benefits paid) for households that remain eligible for AFDC when child support is received.

When this study was conducted, households participating in AFDC that received child support were allowed to retain up to the first \$50 of child support income per month. This pass-through was not counted as income for calculating the AFDC award, but was counted as income when calculating Food Stamp allotments. To estimate Food Stamp cost avoidance, the authors first calculate the level of benefits that each household was eligible to receive when child support (or the pass-through for AFDC households) was included in total household income. This amount is subtracted from the level of benefits that would hypothetically be received if the household received no child support.

The process used to calculate Medicaid cost avoidance is somewhat different than the process used to calculate AFDC and Food Stamps cost avoidance. Once Medicaid eligibility is established, the potential value of benefits is unaffected by the amount of child support received. If receipt of child support pushed a person over the income threshold for Medicaid eligibility, the authors assume that \$796 per parent and \$407 per child (the average annual Medicaid cost per parent and child, respectively, in 1983-1984) are saved per year. Few cases had medical support orders during the period of this study, and Medicaid costs recovered from other insurers are not included in the AS/SRA estimate of Medicaid cost avoidance.

The authors calculate the percentage of custodial households in the SIPP that are eligible for public assistance but choose not to apply. The cost avoidance estimates are then multiplied by these proportions to adjust for households that would choose not to participate in the welfare program. However, the decision by program-eligible households not to apply for public assistance likely depends on the level of benefits expected. Households expecting small benefit awards are less likely to apply than households expecting large benefit awards. Thus, although only 72 percent of AFDC-eligible custodial households might actually apply for AFDC, the level of AFDC expenditures would likely be much higher than 72 percent of the amount expected if all eligible households applied. The same criticism applies to the adjustments for Food Stamps and Medicaid program participation made by the authors.

Findings and Implications for Cost Avoidance

Receipt of child support in 1983 resulted in an estimated \$1.5 billion per year in cost avoidance to all three programs (Table 2-2). Approximately \$516 million per year was saved in AFDC payments; \$466 million per year was saved in the Food Stamps program; and \$512 million per year was saved in the Medicaid program. These estimates take into account that not all program-eligible households apply for public assistance. If all program-eligible households participated in AFDC, Food Stamps and Medicaid, then total cost avoidance would exceed \$2 billion.

The authors discuss several limitations of SIPP for developing national estimates of cost avoidance. One problem is the difficulty identifying who is eligible for child support in

households where the parent has remarried. SIPP does not distinguish between natural, adoptive, or step-parent relationships to children. Because of this limitation, the authors calculate Food Stamps cost avoidance for only single parent households and those remarried households that are either receiving child support or have a child support agreement. Because married households make up only a small proportion of AFDC cases, this omission should have a minimal impact on the AFDC cost avoidance estimates.

Because the SIPP collects little asset information, the authors calculate the value of household assets based on asset income. However, this approach underestimates the level of household assets because many assets are non-interest bearing assets (e.g., cars). Consequently, the authors may overestimate the number of households that are eligible for public assistance but choose not to participate. This would bias downward their “participation adjusted” estimate of cost avoidance.

Table 2-2. Estimated Annual Cost Avoidance in 1983

Program	Annual Cost Avoidance (in 1983 dollars)	# Households or Persons Who Would Receive Assistance	Average Annual Cost Avoidance Per Household/Person
AFDC Cost Avoidance		# Households	Per Household
Made ineligible	\$ 367.2 ($\pm$ 121.5) million	158,200	\$ 2,321
Reduced marginal income so families decided not to apply	\$ <u>148.8</u> ($\pm$ 87.2) million	98,500	\$ 1,511
Total cost avoidance	\$ 516.0 ($\pm$ 156.0) million	256,700	\$ 2,010
Food Stamps Cost Avoidance		# Households	Per Household
Married households			
Made ineligible	\$ 8.3 million	11,000	\$ 753
Reduced marginal income so families decided not to apply	\$ 37.7 million	28,000	\$ 1,346
Reduced benefits	\$ 5.6 million	800	\$ 7,050
Unmarried households			
Made ineligible	\$ 136.4 million	158,400	\$ 861
Reduced marginal income so families decided not to apply	\$ 186.4 million	166,300	\$ 1,121
Reduced benefits	\$ 91.3 million	138,100	\$ 661
All households			
Made ineligible	\$ 144.7 ($\pm$ 56.6) million	169,400	\$ 854
Reduced marginal income so families decided not to apply	\$ 224.0 ($\pm$ 80.6) million	194,400	\$ 1,152
Reduced benefits	\$ <u>97.0</u> ($\pm$ 33.5) million	138,900	\$ 698
Total cost avoidance	\$ 465.7 ($\pm$ 133.3) million	502,700	\$ 926
Medicaid Cost Avoidance		# Persons	Per Person
Parents			
Made ineligible	\$ 162.5 million	204,052	\$ 796
Reduced marginal income so families decided not to apply	\$ 112.6 million	141,427	\$ 796
Children 15-17			
Made ineligible	\$ 25.3 million	62,130	\$ 407
Reduced marginal income so families decided not to apply	\$ 12.0 million	29,557	\$ 407
Children 0-14			
Made ineligible	\$ 102.2 million	251,233	\$ 407
Reduced marginal income so families decided not to apply	\$ 97.8 million	240,300	\$ 407
All Individuals			
Made ineligible	\$ 290.0 ($\pm$ 106.4) million	517,415	\$ 560
Reduced marginal income so families decided not to apply	\$ <u>222.4</u> ($\pm$ 91.6) million	411,284	\$ 541
Total cost avoidance	\$ 512.4 ($\pm$ 140.4) million	928,699	\$ 552
Total Cost Avoidance	\$1,494.1 ($\pm$363.1) million	NA	NA

Source: AS and SRA (1987), Figure 5-1 through Figure 5-4. (ninety-five percent confidence interval in brackets).

3. Potential Effects of Increased Child Support Enforcement on Poverty, Welfare Costs, and Welfare Dependency: Preliminary Evidence From TRIM2³⁸

Description

In this analysis, Sorensen and Wheaton examine the potential for reducing poverty and welfare dependency if child support were collected in full from all non-custodial parents. The study compares the amount of child support collected and welfare benefits paid under two policy scenarios. The baseline scenario uses current (as of 1994) CSE and public assistance eligibility and award guidelines. The alternative scenario assumes that 100 percent of custodial households have support orders and all child support obligations are paid in full. The authors use the Urban Institute's Transfer Income Model version 2 (TRIM2) to estimate welfare expenditures, welfare dependency, and poverty under these two policy scenarios.

The major contributions of Sorensen and Wheaton to the cost avoidance literature are their development of the child support module in TRIM2 and their estimates of potential cost avoidance. The strengths and limitations of TRIM2 are discussed in detail in the Synthesis. The following table provides summary information on this study.

Table 3-1. Study Summary

Period Covered	Data from the 1990 and 1994 CPS are used. CSE and public assistance eligible and award guidelines are from 1994.
Geographic Scope	National
Population Covered	All custodial households
Data Source	The Current Population Survey (CPS)
CSE component(s) analyzed	This study looks at AFDC, Food Stamps, and Medicaid program payments.
Comparisons Made	The authors compare public welfare expenditures under two scenarios—current (as of 1994) child support payments versus 100 percent of cases have a support order and there is full compliance.

Data and Methods

TRIM2 is a microsimulation model of government tax and transfer programs that can be used to evaluate the impact of changes in various government policies. The database underlying Sorensen and Wheaton's analysis is the March/April 1990 Current Population Survey (CPS) matched files. The March CPS contains detailed annual income data, including the amount of child support received, for calendar year 1989. In addition, the survey collected detailed information on household demographics, participation in welfare programs, and the amount of

³⁸ Sorensen, Elaine and Laura Wheaton. (1994). Potential Effects of Increased Child Support Enforcement on Poverty, Welfare Costs, and Welfare Dependency: Preliminary Evidence from TRIM2. Washington, D.C.: The Urban Institute.

public assistance received. The April survey contains a child support supplement that asks a series of questions regarding the receipt of child support.

Using TRIM2, Sorensen and Wheaton estimate the amount of child support that would be collected if all custodial households had child support orders and all non-custodial parents fully complied with these orders. Custodial households without a child support order are assigned an order based on the award levels for households with similar characteristics.

The microsimulation model calculates the expected impact of additional child support payments on program eligibility and expected benefit awards for the AFDC, Food Stamp, and Medicaid programs for each household. Some households that are eligible for public assistance will choose not to apply for such benefits. TRIM2 calculates a probability that the household will not apply for public assistance based on the expected award level and other household characteristics.

1. Findings and Implications for Cost Avoidance

Based on this study, an additional \$21 billion (in 1989 dollars) could be collected from non-custodial parents if all custodial households had child support orders and there was 100 percent compliance with these orders. These additional collections would cause public assistance expenditures to decline by approximately 6 percent (\$4.7 billion per year). On average, each additional dollar collected reduces welfare expenditures by \$0.23. However, the welfare savings attributed to each additional dollar collected depend on the economic status of the recipient household. The majority of additional child support collected would go to custodial households who were not receiving public assistance. Therefore, this additional child support income would not reduce expenditures on public assistance. A summary of the findings is provided in the following table. These estimates of potential cost avoidance include all custodial households—not solely households in the IV-D program. The savings estimates include cost recovery from state recoupment of AFDC benefits as well as cost avoidance.

Table 3-2. Potential Effects of Increased Child Support Enforcement on Welfare Costs and Participation in 1989

	Baseline	Policy Option: Full Establishment and Full Payment		
		New Amount	Absolute Change	Percentage Change
Households and Program Participation (in millions)				
All Custodial Households	11.4			
Custodial households receiving Child Support	4.2	11.4	7.2	168%
AFDC units	3.2	2.9	-0.3	-8%
Food Stamp units	3.1	2.7	-0.3	-11%
Medicaid Enrollees	12.1	11.4	-0.7	-5%
Program Costs (in billions)				
Total	\$29.5	\$24.8	-\$4.7	-16%
AFDC	\$12.0	\$8.9	-\$3.1	-26%
Food Stamps	\$5.9	\$4.7	-\$1.2	-19%
Medicaid	\$11.7	\$11.1	-\$0.6	-5%

Source: Sorensen and Wheaton (1994), Table 2.

4. Child Support's Effectiveness in Reducing Public Assistance Obligations, FY 1996³⁹

Description

This report by the Texas Office of the Attorney General's (OAG) Child Support Division presents estimates of AFDC, Medicaid, and Food Stamps cost avoidance attributed to Texas's CSE system in FY 1996. In addition, the report summarizes the methodology used by OAG to calculate cost avoidance. The following table provides summary information on this study.

Table 4-1. Study Summary

Period Covered	Fiscal year 1996
Geographic Scope	Texas
Population Covered	Texas child support cases
Data Source	State program administrative files
CSE components analyzed	The effect of child support on AFDC, Medicaid, and Food Stamps expenditures
Comparisons Made	Calculate low and high estimates of cost avoidance to public programs based on levels of child support collections.

Data and Methods

The two major sources of data used in this analysis are the automated child support case files and SAVERR (the Texas Department of Human Services' eligibility system). The authors use the child support master file (which contains both AFDC cases and non-AFDC IV-D cases) to categorize cases into five mutually exclusive populations. The first four populations consist of those cases whose characteristics indicate that their receipt of AFDC benefits was possibly prevented, either directly or indirectly, as a result of OAG child support collection efforts. These five populations are the following:

1. **Cases leaving AFDC because of child support collections.** Cases where child support collections were received and that moved off welfare;
2. **Continuing welfare independence.** Cases with a history of public assistance but that did not receive AFDC at any time during FY 1996;
3. **Welfare precluded.** Cases with no prior AFDC history but that would become eligible for AFDC in the absence of child support;

³⁹ Texas, Office of the Attorney General (June 1997). *Child Support's Effectiveness in Reducing Public Assistance Obligations FY 1996*.

4. **Cases leaving AFDC for non-cooperation.** Child support case files closed because the custodial parent would not cooperate with OAG efforts to establish paternity or to establish and enforce child support orders; and
5. **All other cases.** No cost avoidance estimates are made for the fifth population.

The first population consists of those cases whose departure from the AFDC rolls during FY 1996 is attributable to the receipt of child support. To calculate cost avoidance for this population, the authors determine (1) how many households received child support payments and left AFDC, (2) the length of time households stayed off AFDC during the fiscal year, and (3) the level of AFDC benefits the households were receiving at the time they left AFDC. On average, these cases left the AFDC rolls for nine months and left the Medicaid rolls for 5.4 months. The average monthly AFDC grant for this population was \$157.95.

The second population consists of cases that did not receive AFDC in FY 1996, but that did receive AFDC at some time during FY 1994 or FY 1995. The authors assume that without the IV-D program, a portion of these cases would have become eligible and applied for AFDC during FY 1996. For these cases, the average length of time off the AFDC rolls is 12 months (by definition) and the average length of time off Medicaid is 10.5 months. If these cases had remained on AFDC, the average expected monthly AFDC grant would have been \$172.86. This estimate is based on the average number of children in the cases in this population.

The third population consists of non-AFDC child support cases with no prior AFDC history. As with population two, the authors assume that a fraction of this population would have become eligible for and applied for AFDC during FY 1996 in the absence of the IV-D program. The expected average monthly AFDC grant (in the absence of child support) for cases in this population is \$172.86, and the assumed length of time on AFDC is 11.9 months.

The fourth population consists of those cases that refused to cooperate with OAG's effort to establish paternity and child support orders and to enforce such orders. The authors assume that these cases remain off AFDC and Medicaid for an average of 4.9 months and 4 months, respectively. The average estimated monthly AFDC grant for these cases is \$160.37. Although the authors include program savings from households denied participation in AFDC for noncompliance with OAG efforts to establish paternity and to enforce support orders, it is unclear whether such program savings should be considered cost avoidance.

Findings and Implications for Cost Avoidance

The authors calculate both high and low estimates of cost avoidance. The high estimate includes program savings for all cases where child support is a factor in welfare independence. The low estimate is based only on those cases where child support collections alone would be sufficient to keep the household off public assistance for an entire year. Program savings for households that were denied benefits because of non-cooperation are included in both cost avoidance estimates. Both the high and low estimates are based on cases where child support was actually collected (Table 4-2). Cost recovery is not included in these estimates.

Table 4-2. Findings and Implications for Cost Avoidance

Populations ¹	Population Size	Sample Size	Estimated Cost Avoidance Per Case Affected By The Child Support Division's Efforts (FY 1996 dollars)			
			AFDC	Medicaid	Food Stamps	Total
1	52,899	355	\$468-\$1,871	\$193-\$771	\$277-\$1,108	\$938-\$3,750
2	45,413	355	\$643-\$2,074	\$447-\$1,442	\$381-\$1,228	\$1,471-\$4,745
3	79,298	384	\$386-\$897	\$268-\$624	\$228-\$531	\$883-\$2,053

¹(1) Cases leaving AFDC because of child support collections; (2) cases currently not on AFDC but previously on AFDC; and (3) cases currently not on AFDC and with no history of welfare dependency.

Of the \$619 million in child support collected, 14.2 percent (\$88 million) was applied against AFDC payments previously paid to custodial parents (i.e., cost recovery). In addition, establishment of paternity and CSE is directly responsible for the recovery of nearly \$1.2 million in Medicaid payments. This estimate represents Medicaid payments made by the state and later recovered from a third party.

For the majority of child support cases in Texas (approximately 570,000 of nearly 750,000 cases, or 76 percent), the Child Support Division's efforts have no cost avoidance implications. Thus, when total cost avoidance estimates are divided by the total number of cases the estimates of savings per cases are relatively modest. Cost avoidance per child support case in Texas was approximately \$387 to \$907 in FY 1996.

Table 4-3. Estimated Cost Avoidance and Cost Recovery In Texas (per child support case)

	Total Child Support Cases ¹	AFDC Cost Recovery	AFDC Cost Avoidance	Food Stamp Cost Avoidance	Medicaid Cost Avoidance	Total Cost Recovery and Avoidance
High Range of Cost Avoidance Estimate						
Total	749,629	\$88,707,234	\$265,940,293	\$157,468,074	\$168,000,000	\$680,115,601
Per case		\$118	\$355	\$210	\$224	\$907
Low Range of Cost Avoidance Estimate						
Total	749,629	\$88,707,234	\$86,151,119	\$51,011,641	\$64,000,000	\$289,869,994
Per case		\$118	\$115	\$68	\$85	\$387

¹ Total cases include the following populations: (1) cases leaving AFDC because of child support collections (N=52,899); (2) cases currently not on AFDC but previously on AFDC (N=45,413); (3) cases currently not on AFDC and with no history of welfare dependency (N=79,298); (4) cases denied AFDC for non-compliance (N=2,019); and (5) all other child support cases in Texas (N=570,000).

One limitation of this study, like other published studies, is that the cost avoidance estimates attribute all child support collections to the IV-D program. No estimate is made of those collections that would have taken place in the absence of the program. In addition, the authors assume that all cases who leave AFDC that also receive child support do so as a result of the IV-D program when in fact some households leave the AFDC rolls because of factors unrelated to child support (e.g., employment). Furthermore, the authors assume that all households who are eligible for public assistance will apply. Consequently, their cost avoidance estimates overestimate public assistance costs that would have occurred in the absence of the IV-D

program. The authors count AFDC savings from families denied AFDC benefits for non-compliance reasons as cost avoidance. It is not clear whether AFDC payments forfeited for non-compliance constitutes cost avoidance. Finally, the study does not take into account possible behavioral changes caused by IV-D program activities and the receipt of child support.

5. The Role of Child Support in Texas Welfare Dynamics⁴⁰

Description

This study by Schexnayder et al. uses administrative data for AFDC caretakers, their children and the non-custodial parents to determine (1) for each AFDC case, the probability of a child support award being established; (2) factors affecting the amount of the obligation; (3) the probability of collecting payments; (4) factors affecting the amount collected; (5) the probability of exit from AFDC; and (6) the probability of return to AFDC. The study provides no direct estimates of AFDC cost avoidance. The following table provides summary information on this study.

Table 5-1. Study Summary

Period Covered	September 1992 through August 1996
Geographic Scope	Texas
Population Covered	Texas child support cases on AFDC
Data Source	State program administrative files
CSE components analyzed	AFDC
Comparisons Made	1) Probability of award establishment, (2) factors influencing award amount, (3) probability that a collection was made in the case, (4) factors influencing the amount of the collection, (5) the probability of exit from AFDC, and (6) the probability of return to AFDC.

Data and Methods

The analysis uses data on 65,616 custodial parents who were receiving AFDC as of September 1, 1992. The longitudinal database used for this analysis was created by linking AFDC data, child support data, Job Opportunity and Basic Skills (JOBS) program data, and Unemployment Insurance (UI) data using social security numbers. These data were collected over a four-year period from September 1992 to August 1996.

The study uses both descriptive statistics and statistical inference. Descriptive statistics were used to describe the characteristics of Texas AFDC caretakers and non-custodial parents, and to describe changes in the characteristics of AFDC cases over time. Statistical inference was used to estimate the effect of a number of factors on the probability of having a child support award,

⁴⁰ Schexnayder, Deanna T.; Jerome A. Olson; Daniel G. Schroeder; Jody L. McCoy (1998). *The Role of Child Support in Texas Welfare Dynamics*. Prepared by the Center for the Study of Human Resources. Austin, TX.

the probability of receiving child support collections, and the probabilities of entering and exiting AFDC. Key information on non-custodial parents was unavailable (e.g., education level, current marital status, incarceration status, and out-of-state residence).

Findings and Implications for Cost Avoidance

Based upon an analysis of descriptive statistics, the authors found that roughly 36 percent of the original sample observed in September 1992 was still on AFDC during the last quarter of the research study (July 1996 to September 1996). Those AFDC caretakers on the rolls during this last quarter were more likely to be black or Hispanic, more likely to have less than a high school education, more likely to be 25 or older, more likely to have been on welfare for more than 31 months over their lifetimes, and more likely to have three or more children than those on the rolls at the start of the study period.

In the first year of the study, OAG had received enough information to open child support cases for 62.5 percent of the sampled AFDC caretakers. By September 1996, that figure had been increased to nearly 90 percent of the sample. The percentage of obligations collected also rose during the period. During the first year of the study period, 43.6 percent of all obligations were collected. During the fourth year of the study period, the state was collecting 53.3 percent of all obligations. At the beginning of the study period, six percent of the sampled AFDC caretakers were receiving any child support payments; by the end of the study period, 16 percent of the AFDC caretakers were receiving any child support.

The authors use a multivariate regression approach to determine what factors increase the probability of an AFDC caretaker having an established child support award in place during any given quarter of the observation period. The authors find that (1) a measure of the cumulative effort by the IV-D program to process child support cases, (2) the presence of more than one non-custodial parent per AFDC case, (3) the presence of an older-age youngest AFDC child, (4) the presence of a Black or Hispanic non-custodial parent, and (5) higher earnings of the non-custodial parent all increase the probability of having an established award. Factors that decreased the probability of having an established award were (1) the presence of more than one child on an AFDC grant, (2) the presence of a male AFDC caretaker, (3) the presence of a non-custodial parent younger than 25 or older than 45, (4) the presence of an AFDC caretaker with less than a high school education (or educational status unknown), and (5) the presence of children born out of wedlock. Overall, the probability of an AFDC caretaker having an established child support award in place during any given quarter of the observation period was 47.7 percent.

The authors also found that the amount of obligations were smaller for minority than for white AFDC caretakers, for cases where the child was born out of wedlock, and for cases in which the caretaker had little education.

The authors find that earnings of non-custodial parents is the most important predictor of compliance with support orders, and the probability of collections increased by 0.81 percentage points for every \$100 increase in quarterly earnings. Each additional \$100 of the non-custodial parent's quarterly wages increased the child support payment by \$3.52. Other factors that are associated with an increase in the probability of support payments and that are statistically

significant in the regression analysis include (1) a measure of the cumulative effort by the IV-D program to process child support cases, (2) age of the non-custodial parent, (3) if the non-custodial parent was Hispanic, and (4) if a child was born out of wedlock. The latter two factors, Hispanic and child born out of wedlock, have a very small effect (even though the effect is statistically significant) and these findings are opposite to the findings of other studies. Factors associated with a decrease in the probability of support payments include (1) the non-custodial parent was black, (2) the custodial household had multiple child support cases, (3) the number of children in the custodial household, and (4) age of the youngest child.

The authors find that in Texas between 1992 and 1996, a \$100 increase in quarterly child support collections (approximately a 20 percent increase in average collections) induced a 2.5 percentage point increase in the probability of exiting AFDC. Sixteen percent of total AFDC exits occurred as a result of child support collections, and earnings through child support receipt were three times more likely than earnings through caretaker income to induce an exit from AFDC. In addition, the authors find that custodial parents who complete high school are more likely to exit AFDC during a given quarter than are custodial parents who did not complete high school. They also find, as do other researchers, that custodial parents with a long history of AFDC participation, with more children, with younger children, and that are minorities are less likely to exit AFDC during a given quarter.

The authors do not make AFDC cost avoidance estimates based upon these findings. The study shows that receipt of child support has a statistically significant effect on the probability of a caretaker leaving AFDC. However, because average child support payments are so small child support receipt has virtually no effect on the percentage of caretakers lifted out of poverty. The authors estimate the relationship between caseload demographic characteristics and important measures of IV-D program success—such as (1) probability of a child support award being established, (2) amount of obligation, (3) amount of obligation for arrears, (4) probability of collecting payments other than IRS intercepts, (5) probability of exist from AFDC, and (6) probability of return to AFDC. The methodology employed in this study could be used to develop case-mix-adjusted outcomes of these measures for individual states, and could then be used for benchmarking purposes.

STUDIES OF COMPLIANCE WITH SUPPORT ORDERS

6. Patterns of Child Support Compliance in Wisconsin⁴¹

Description

Meyer and Bartfeld investigate differences in child support compliance between divorced, non-custodial fathers and never-married, non-custodial fathers over a five-year period following the establishment of a support order. Their main findings are that (1) compliance is substantially higher for divorced, non-custodial fathers relative to never-married non-custodial fathers, and (2) compliance in the year immediately following the establishment of a support order is a good predictor of future compliance. This study is relevant to the topic of cost avoidance because it suggests that IV-D program activities aimed at improving compliance with child support orders may have different cost avoidance implications for divorced and never-married households and for orders established quickly following a divorce or couple separation. The following table provides summary information on this study.

Table 6-1. Study Summary

Period Covered	1986-1994
Geographic Scope	The sample consists of 512 child support cases from 20 Wisconsin counties.
Population Covered	The sample consists of cases where the non-custodial father was ordered to pay a fixed amount of child support through the court system. The study purposely excludes cases where the support order is directly tied to the non-custodial father's income, as well as cases where the mother paid child support.
Data Source	Wisconsin Court Records Database (WCRD)
CSE components analyzed	Compliance with support orders
Comparisons Made	Compliance behavior of divorced versus never-married, non-custodial fathers; compliance patterns over time

Data and Methods

The authors use longitudinal data drawn from the Wisconsin Court Records Database (WCRD) to analyze long-term child support compliance patterns in Wisconsin.⁴² The sample contains information on 512 child support cases from 20 Wisconsin counties. All cases involve households whose support orders were established between July 1986 and June 1988, and each

⁴¹ Meyer, Daniel and Judy Bartfeld (1997). *Patterns of Child Support Compliance in Wisconsin*. Institute for Research on Poverty: Discussion Paper no. 1130-97.

⁴² The WCRD was compiled by the Institute for Research on Poverty at the University of Wisconsin at Madison.

case was tracked for approximately five years. Cases from the WCRD were included in the analysis sample if the father was ordered to pay a fixed amount of child support through the court system. Cases were excluded if the mother paid child support, if the child support order was a function of the obligor's income (and thus was allowed to vary over time), or if payments were made outside the court system. The WCRD contains data on both support orders and payments.

The authors first calculate the annual compliance rate (i.e., the amount of the child support payment divided by the obligation) for each case in the sample and then classify non-custodial fathers as non-payers, partial payers, or full payers based on the compliance rate for the initial year of data.⁴³ Next, the authors calculate mean compliance rates for the entire sample of fathers, and for subgroups of never-married and divorced fathers. The authors then investigate the extent to which the payment status of non-custodial fathers initially classified as non-payers, partial payers, or full payers changes over the five-year period.

Findings and Implications for Cost Avoidance

This study shows that although mean aggregate compliance *rates* are nearly constant over the five-year period examined, the compliance *behavior* of many fathers (about half) changes over the five-year period. Specifically, compliance gravitates towards either full compliance or zero compliance. Fathers classified in the first year as non-payers and full payers tend to remain within those categories, while partial payers are more likely to become either non-payers or full payers.

Meyer and Bartfeld identify significant differences in compliance behavior between never-married and divorced fathers. Never-married fathers were much more likely not to pay at all during the initial year following a support order, with payment from payers tended to decline over time. In contrast, divorced fathers were more likely to be fully compliant during the first year and overall compliance among this group increased over time.

This study shows that compliance is particularly problematic among non-marital cases. Current IV-D program policies have not been effective at improving the compliance of this group. The systematic exclusion of certain child support cases from the analysis limits the degree to which findings can be generalized to all child support cases.

⁴³ Non-custodial parents were classified as “full” payers if 90 percent or more of obligations were paid during the year.

7. Enforcing Divorce Settlements: Evidence from Child Support Compliance and Award Modifications⁴⁴

Description

Peters, et al. use longitudinal data to examine the relationship between changes in economic and custodial circumstances and compliance with child support orders. The authors investigate whether these changes in circumstances are likely to cause parents to modify the financial terms of their divorce settlement. This study uses explanatory variables that measure the non-custodial parent's ability and desire to pay child support. Compliance with informal and formal agreements are differentiated to evaluate whether compliance is a unilateral decision on the part of the non-custodial parent not to pay or whether compliance is related to the ability to pay. The following table provides summary information on this study.

Table 7-1. Study Summary

Period Covered	This study uses cases where a petition for divorce was filed between September 1984 and March 1985, and follows the case for up to three years following the petition for divorce.
Geographic Scope	San Mateo and Santa Clara Counties.
Population Covered	The study analyzes compliance behavior of recently divorced parents from two relatively affluent California counties. It is questionable whether the findings can be generalized to the population that is most likely to participate in TANF or other government welfare programs.
Data sources	Court records and interviews
CSE component(s) analyzed	Compliance with support orders
Comparisons Made	Child support compliance with formal agreements (legal divorce settlements) compared to compliance with informal agreements. Compares compliance rates at one year and three years following divorce.

Data and Methods

The sample used in this analysis consists of approximately 800 families that filed divorce petitions between September 1984 and March 1985 in San Mateo or Santa Clara County, California. All of the families included in the sample have children aged 16 or younger at the time of petition for divorce. The data were compiled by the Stanford Child Custody Project using court records and personal interviews with both mothers and fathers conducted over a three-year

⁴⁴ Peters, Elizabeth; Argys, Laura M.; Maccoby, Eleanor E.; and Robert H. Mnookin. (November 1993). Enforcing Divorce Settlements: Evidence from Child Support Compliance and Award Modifications. *Demography*, Vol. 30, No. 4.

period following the petition for divorce. It contains information on the exact terms of the divorce settlement; length of marriage; characteristics of the parents' involvement with their children before separation; and parents' age, race, education, earnings, and labor force participation. The Stanford survey was used to compile information on child support payments (or receipts), de facto custodial and visitation arrangements, modifications in the agreement about child support or custodial arrangements, and the circumstances surrounding the divorce. Surveys also requested that respondents indicate whether child support payments were modified "because the parents informally had agreed to modify the settlement, or because the non-custodial parent simply did not pay the full amount." The respondents were interviewed at six months, one year, and three years following the date of petition for divorce.

The authors estimate a series of multivariate regression models to determine the probability that there was a modification to the financial terms of the divorce settlement within three years of the petition for divorce. The set of explanatory variables includes "measures of changes in circumstances, the degree of parental conflict over the initial divorce settlement, and the degree of interaction between the non-custodial parent and the children before and after the divorce." To determine whether compliance changed over time, the authors examine a cross-tabulation of the frequency of child support compliance with the legal divorce settlement after one year and compare this to compliance results at three years. The authors perform a multivariate Tobit regression analysis. The dependent variables analyzed were compliance with the formal support agreement and compliance with any informal support agreement three years following the petition for divorce. To analyze the non-custodial parents' desire to pay, the authors use explanatory variables that describe the circumstances surrounding the divorce and the non-custodial parents' relationship with their children.⁴⁵

Findings and Implications for Cost Avoidance

The authors find that compliance patterns change over time and are related to changes in the parents' economic and custodial circumstances. (Some of this variation in compliance results from parents mutually agreeing to modify the financial terms of the divorce settlement in response to these changes.) One implication is that microsimulation models and other approaches to estimate cost avoidance should consider current economic conditions when estimating what compliance rates would be in the absence of the IV-D program.

An examination of the Stanford survey data indicates that 15 to 30 percent of divorced parents make informal changes to their support agreement within three years. The study also finds that non-custodial parents who exhibit higher levels of child attachment and involvement are more likely to comply with both formal and informal support agreements.

⁴⁵ Specific explanatory variables include: (1) whether the non-custodial parent is employed; (2) whether the non-custodial parent is a college graduate; (3) whether the non-custodial parent spends more or less time with the child than the court awarded; (4) whether the non-custodial parent has contact with the children; (5) whether the divorce was contested or uncontested; (6) whether the non-custodial parent has joint legal custody; (7) whether the father or mother has remarried; (8) number of years since divorce; (9) duration of the marriage; (10) age of youngest child; (11) whether the non-custodial parent resides outside of state; and (12) whether the location of the non-custodial parent is known.

Non-custodial parents who exhibit a strong desire to pay may be more likely to make informal modifications to the financial terms of their divorce settlements as a result of changes in their economic or custodial circumstances. Because compliance statistics do not account for informal modifications, they may exaggerate the proportion of non-custodial parents who are not in compliance.

8. The Relationship Between Child Support Enforcement Tools and Child Support Outcomes⁴⁶

Description

This study makes use of variation across states and over time in the implementation of IV-D program policies to determine their effect on child support outcomes. In particular, this paper examines the relationship between major IV-D program activities—including those implemented as part of the 1984 Child Support Enforcement Amendments and the Family Support Act—and child support outcomes. In addition, Garfinkel and Robins investigate whether outcomes are influenced by (1) the level of state administrative expenditures on CSE, and (2) whether the state requires payment of child support through an agency rather than directly to the custodial parent. The following table provides summary information on this study.

Table 8-1. Study Summary

Period Covered	1979-1988
Geographic Scope	The CPS is a nationally representative sample of households. However, the small number of households in individual states precludes making reliable state level estimates.
Population Covered	The study looks only at custodial households headed by single mothers.
Data Source	Current Population Survey
CSE components analyzed	The study analyzes provisions related to wage withholding under delinquency, immediate wage withholding, medical support, numerical guidelines, paternity, fees for non-AFDC families, publicizing CSE, requiring payment of child support to an agency, and administrative expenditures by the state IV-D programs. The study also analyzes three components of child support collections: (1) establishment of an award, (2) award amounts, and (3) compliance with awards.
Comparisons Made	This study compares child support outcomes under various IV-D program policies.

⁴⁶ Garfinkel, Irwin and Philip K. Robins. (1994). In *Child Support and Child Well Being*, Irwin Garfinkel, Sara S. McLanahan, and Philip K. Robins, Eds. The Urban Institute Press, Washington, D.C.

Data and Methods

The sample for this study consists of 19,220 households headed by adult mothers with “children from an absent parent.” The data were obtained from the Child Support Supplement to the Current Population Survey. In addition to data on child support collections, the database includes information describing the mother’s economic circumstances and demographic characteristics.⁴⁷ The database contains survey data from the period 1979 through 1988.

The authors use a multivariate regression model to estimate the relationship between child support outcomes and child support policies. The four dependent variables analyzed were the total amount of child support collected, whether a mother received a child support award, the amount of the award, and the collection rate. The policy variables used to explain child support outcomes were indicators of provisions related to wage withholding under delinquency, immediate wage withholding, medical support, numerical guidelines, paternity establishment, fees for non-AFDC families, publicizing CSE, and requiring payment of child support to an agency. In addition, state level administrative expenditures on CSE is included in the model as an explanatory variable.

In their preliminary analysis, Garfinkel and Robins use the full sample for all outcomes. Six equations were estimated. The authors use a backward elimination procedure to determine which of the 16 policy variables are significantly associated with the four outcomes.

This paper also examines the effect of IV-D program policies on three components of child support collections. First, the authors estimate a Probit model to determine the probability of having an award. Second, the authors estimate a Heckman Two-Stage model (first stage Probit, second stage OLS) using data on the 9,652 households with an award. The purpose of this model is to determine the amount of an award conditional on having an award. Finally, the authors estimate a Tobit model (first-stage Probit, second-stage Tobit) to determine the collection rate conditional on having an award.

Findings and Implications for Cost Avoidance

Garfinkel and Robins find that the majority of the IV-D program policies analyzed have a significant impact on child support outcomes. Policies found to have a positive and statistically significant effect on child support payments and award amounts in the regression equations include wage withholding (both immediate as well as response to delinquency), publicizing the availability of CSE services, allowing paternity to be established until a child’s 18th birthday, requiring payment of child support through a third party, and administrative expenditures by state IV-D programs. Charging fees for non-AFDC families and requiring that medical support be included in a child support order were found to have a negative and statistically significant effect on child support payments and awards.

⁴⁷ The explanatory variables used in the analysis include indicator variables for region of country, years of education, race, marital status, number of children, age, years since marital dissolution (if the mother was previously married), and an indicator of whether the dissolution occurred during 1987.

The authors find that several IV-D program policies influence individual components of child support collections. One of the principal findings is that wage withholding has a positive and significant influence on both the probability of having an award and the collection rates given an existing award. Although IV-D expenditures have the most significant impact on the collection rate, the authors find no empirical evidence of a relationship between IV-D expenditures and the probability of having an award. Requiring payments to be made through a public agency and paternity establishment influenced all three components of aggregate child support collections: establishment of an award, award amounts, and compliance. Of all the policies, publicizing IV-D services had the most significant effect on increasing the probability of having an award. Including medical support in a child support award slightly reduced the probability of having an award. Charging fees for non-AFDC recipients reduced both the probability of having an award and the level of awards.

Although the findings are dated, the study shows a correlation between state child support enforcement activities and child support collections—in terms of establishment of an award, award amounts, and compliance. The statistical techniques used in this paper could be used by states to estimate the effect of IV-D program activities on child support collections, which could then be used to estimate cost avoidance associated with these IV-D program activities. Similarly, if one or more states implement a new child support enforcement activity, then the approach used by Garfinkel and Robins could be used to assess the impact of the new activity on child support collections, which could be used by others states to assess the possible cost avoidance implications of adopting the new activity.

STUDIES OF CHILD SUPPORT REVIEW AND ADJUSTMENT EFFORTS

9. Evaluation of Child Support Review and Modification Demonstration Projects in Four States ⁴⁸

Description

The Family Support Act of 1988 (PL 100-485) authorized four states to conduct demonstration projects to review child support orders and to modify those support orders where an increase or decrease in the award amount was warranted. The purpose of the demonstrations was to evaluate the procedures and techniques that could potentially be used to review child support orders nationwide. This report, by Caliber Associates, presents the findings of a congressionally mandated review of the four state demonstrations. The following table provides summary information on this study.

Table 9-1. Study Summary

Period Covered	July to September 1989
Geographic Scope	Colorado, Delaware, Florida and Illinois.
Population Covered	Child support cases, AFDC and non-AFDC, that had not been reviewed in the past 36 months
Data Source	State administration files, case records.
CSE components analyzed	Periodic review and modification of child support orders.
Comparisons Made	This study compares pre and post-demonstration net AFDC payments. Also, the study compares benefits and costs of the demonstration. This study compares benefit-cost ratios for the demonstration.

Data and Methods

The demonstrations took place in Colorado, Delaware, Florida, and Illinois and were conducted from July to September 1989. As part of the demonstration, the states were required to review cases that had not been reviewed for at least 36 months and apply their respective state child support guidelines to cases in need of modification. All four states implemented modification procedures that used a form of pre-court settlement process to avoid the expense associated with the use of the court system. The states randomly selected child support cases that met the eligibility criteria for review.

Each state implemented different review and modification procedures. Both Colorado and Florida reviewed cases using financial information obtained from the parties or from other

⁴⁸ Bishop, Sharon (1992). *Evaluation of Child Support Review and Modification Demonstration Projects in Four States*. Final report prepared by Caliber Associates.

sources such as State Department of Labor databases and letters from employers. In Colorado, if a modification to the child support order was warranted, the state solicited a stipulation to the modified order from the parents. If such a stipulation could not be obtained, the case was turned over to the courts for adjudication. In Florida, if modification was warranted, the state first attempted to obtain consent from both parents and referred cases to the court only if this consent could not be obtained.

Delaware's review and modification system made use of the Family Court System. The state first attempted to obtain an agreement for modification using a Court Mediator. If mediation failed, Delaware then forwarded the case to the court.

Illinois obtained information on parent employment and income from the state's Department of Labor and Tax Revenue. In addition, the state collected some information from the obligor's employers. All cases found to be in need of modification were sent to court, though state attorneys attempted to acquire pre-trial agreements.

Findings and Implications for Cost Avoidance

The rate of modification among AFDC cases was higher than among non-AFDC cases (15 percent versus six percent). Two factors explain the difference in modification rates. First, states may have lacked authorization to review non-AFDC cases, while policy allows for all AFDC cases to be reviewed and modified. Second, the states involved in the demonstration pursued AFDC cases more vigorously than non-AFDC cases. The authors note that 93 percent of all AFDC modifications were upward modifications and the average increase was highest for AFDC cases (with a 115 percent increase, on average). The relatively high rate of modification among AFDC cases is desirable from the state's perspective insofar as increases in the amount of child support awarded leads to higher cost recovery or cost avoidance.

To estimate the amount of cost avoidance attributable to the demonstration, Bishop measures the difference between the state and federal governments' net AFDC payments before and after the modification. Pre-demonstration AFDC net payments are equal to outlays minus child support payment offsets plus the sum of the \$50 monthly pass-through allowances. Post-demonstration payments are based on the average AFDC payments for those participating in the demonstration, minus child support payments, plus pass-through allowances.⁴⁹ Modifications to 1,774 in-state cases created total monthly savings of approximately \$140,000, or \$4.6 million (in 1991 dollars) over the entirety of the 36-month demonstration period.⁵⁰ Average monthly savings per case varied by state (from a high of \$85 in Illinois to a low of \$55 in Delaware). These benefits, combined with federal incentive payments to states, are greater than the respective program expenditures of approximately \$1.5 million, yielding a benefit-cost ratio of 5.75:1.⁵¹

⁴⁹ To calculate post-demonstration child support payments, the modified child support orders were adjusted by the average rate of compliance to account for non-payment.

⁵⁰ A discount rate of eight percent is assumed.

⁵¹ This benefit-cost ratio includes the benefits associated with modification of a small number of interstate cases.

Bishop also reports the benefits and costs associated with an ongoing review and modification program. In order to measure the benefits associated with such a program, benefits over the second of the three demonstration years were used. Costs include only operations costs, as development costs are assumed not to be a part of an established program. Estimated benefits to the federal government and states of approximately \$4 million outweigh the operations costs of approximately \$765 thousand, resulting in a benefit-cost ratio of 5.2:1.

This benefit-cost ratio is, however, likely to overstate the actual steady-state benefit-cost ratio for several reasons. First, the benefit amounts are likely to be inflated by the large number of cases that had not been modified for significantly longer than the 2.5 year review period that would be typical in the long-run. Also, because this sample of cases includes a very small proportion of downward modifications, the actual prevalence of downward modifications may be greater in an ongoing review and modification effort.

10. An Evaluation of the Order Revision Pilot Project⁵²

Description

In this study, Corbett et al. review the preliminary results of the first 18 months of the Wisconsin Order Revision Pilot (WORP). The WORP was established in 1990 by Wisconsin's State Budget Act of 1989-1991 to identify implementation barriers and solutions for child support order review and modification procedures. This project was implemented in anticipation of a major provision of the 1988 Family Support Act (FSA) that mandated the review and revision of child support orders at least 36 months after the order was established. The Wisconsin Department of Health and Social Services selected four county IV-D agencies to participate in the WORP. These pilots would revise support orders established prior to July 1, 1987, the date the percentage standard became presumptive in all Wisconsin counties.⁵³ The following table provides summary information on this study.

Table 10-1. Study Summary

Period Covered	1990-1991
Geographic Scope	Four counties in Wisconsin.
Population Covered	The WORP reviewed child support orders greater than three years old.
CSE components analyzed	Child support orders, payments and arrearages. Optional order revisions and mandatory order revisions.
Comparisons Made	The authors compare child support outcomes under both AFDC and non-AFDC optional and mandatory child support order review policies.

⁵² Corbett, Tom, Brown, Pat, Kost, Kathleen (1991). Institute for Research on Poverty, University of Wisconsin – Madison.

⁵³ Child support orders that are a fixed dollar amount are not automatically adjusted for inflation and increases in income.

Data and Methods

The authors review the first 18 months of the implementation of the mandatory review and modification procedures. To obtain data, the authors conducted site visits, held group discussions with pilot officials, and reviewed case level data reported by counties through June 30, 1991.

Each county IV-D office implemented the order revision process differently. However, all pilot staff were required to select from cases greater than three years old (established prior to July 1, 1987), and to review equal numbers of AFDC and non-AFDC cases in each county. The order revision process involved essentially two steps—selecting cases and revising old orders. Cases were selected for revision based on whether the pilot staff determines the case was worthwhile to pursue. Child support cases were excluded from the order revision process for the following reasons: (1) no support obligation existed because parents had reconciled, (2) one of the parents lived outside the state, (3) the whereabouts of one of the parents was unknown, (4) the non-custodial parent's economic situation was known to be unfavorable, or (5) there has been some change in the status of the children.

The second step in the order revision process required the involvement of the custodial parent. The authors found that the procedures involved in pursuing revisions differed depending on whether the case was AFDC or non-AFDC. In non-AFDC cases, pilot staff somehow had difficulty securing the cooperation of the custodial parent to revise orders. Some custodial parents were reluctant to complete the paperwork and pay the fees related to the revision process. The authors hypothesize that custodial parents may have been able to subsist on the current financial arrangements. Or, they did not want to “hassle former partners, reopen communications, or upset the relationship that exists between partner and children, or face potential harassment.”

Pilot staff faced another set of problems in revising AFDC cases. The main factor in determining whether to pursue a case was evaluating the non-custodial parent's ability to pay child support. In pursuing AFDC cases, pilot staff often encountered non-custodial parents who were underemployed, disabled, had other support obligations, or were receiving public assistance.

Findings and Implications for Cost Avoidance

The WORP resulted in increased child support awards and in increased collections and payments of arrearages. The pilot's staff reviewed a total of 2,300 orders of which 313 were revised. The average increase in all revised orders was \$97.27 per month (Table 10-2). Revisions for AFDC cases averaged about \$90 per month, and revisions of non-AFDC cases averaged about \$103 a month. On average, \$0.96 of every \$1.00 increase in an order was being paid. An additional \$59.00 per month on average was collected in arrearages that might not have been collected in the absence of the program (Table 10-3).

Table 10-2. Changes in Monthly Child Support Orders and Collections in All Revised Cases by AFDC Status (in 1990 dollars)

Average Collections Per Month Per Case ¹	Total	AFDC	Non-AFDC
Old CS Order	\$163.84	\$135.27	\$175.08
New CS Order	\$261.11	\$225.49	\$277.71
Average \$ Change	\$97.27	\$90.22	\$102.63
6 Mo. Prior to Change	\$138.63	\$103.26	\$154.89
6 Mo. After Change	\$231.66	\$205.53	\$244.00
Average \$ Change	\$93.03	\$102.27	\$89.11
Average % Change	67.1%	99.0%	57.5%

Source: Table 7 in Corbett et al. (1991).

¹ From the month following the commencement date of the new order and calculated for the subsequent six months.

Table 10-3. Changes in Monthly Child Support Arrearages by Pilot Site (in 1990 dollars)

Arrearage Collections/Month ¹	Total	AFDC	Non-AFDC
6 Mo. Prior to Change	\$24.96	\$36.13	\$19.76
6 Mo. After Change	\$83.82	\$86.01	\$83.48
Average \$ Change	\$58.86	\$49.88	\$63.72
Average % Change	+236%	+138%	+322%

Source: Table 9 in Corbett et al. (1991).

¹ From the month following the commencement date of the new order and calculated for the subsequent six months.

The authors also found that the revision process resulted in increased health insurance coverage for children. Insurance was added in 10% of the revised cases.

Through June 1991, the order revision process resulted in additional child support collections of approximately \$380,000 including increased award and arrearage payments. During the same time period, the four counties spent \$144,000. Thus, in the short-run, the order revision process resulted in a benefit-cost ratio of 2.7:1. The long run benefit-cost ratio is unknown, but could be substantially different than the short run benefit-cost ratio for several reasons. First, the short run estimate includes start-up cash for the program (which would raise the long run benefit-cost ratio as start up costs are spread over a longer period of time). Second, the pilot staff selected those cases for review with the greatest likelihood of a successful upward revision. That is, cases that might result in a downward revision were excluded from the process. Consequently, an ongoing review and modification program might not be as successful in terms of the total increase in child support collections.

The authors also examined whether the increase in child support collections had an impact on welfare dependency. Before the project, the average child support order for an AFDC case was

approximately \$135 a month and the non-AFDC case average was \$175 month. However, many households were still income eligible even if the award doubled following the revision. But as Table 10-4 shows, the increase in child support collections can make a small difference. Of the 64 cases where the CS order was revised and the new order had been in effect for six or more months (the revisions took place during the later part of 1990 or the beginning of 1991), 45 percent of the cases were still on AFDC in August 1991, and 55 were no longer on AFDC.

Table 10-4. Cases on AFDC at Time of Review: AFDC Status in August 1991 by Whether or Not Child Support Order Was Revised

CS Order Revised	AFDC Status (in August 1991)		Total
	Off	On	
Yes ¹	35 (55%)	29 (45%)	64 (100%)
No	60 (51%)	57 (49%)	117 (100%)
Total	95	86	181

Source: Table 14 in Corbett et al. (1991).

¹ If revised, new order in effect for six or more months; otherwise case not included in this analysis.

The findings from this study suggest that review and modification programs can result in a substantial increase in child support orders for some cases. However, the sample of orders reviewed and revised in this study is relatively small and is not representative of the total IV-D caseload. Because the review and modification effort picked those cases for review with the greatest potential for an upward adjustment the results are, in effect, an estimate of the upper bound of the potential success of the program. Also, nearly the same percentage of cases without a revision left AFDC as the percentage of cases with a revision, which diminishes the apparent effectiveness of the review and modification effort in moving cases off AFDC.

11. Estimated Effects of the Optional Review of Child Support Orders for TANF Cases⁵⁴

Description

The Personal Responsibility and Work Opportunities Reconciliation Act of 1996 (PRWORA) which is best known for replacing the AFDC program with TANF eliminated the mandatory review of child support orders that was established as part of the Family Support Act of 1988. Prior research has shown that mandatory review and modification policies resulted in increased child support orders and collection. Increased collections, in turn, have increased cost recovery and have reduced reliance on public assistance, resulting in cost avoidance.

⁵⁴ Meyer, Daniel R. and Dworsky, Amy Lynn (1997), Institute for Research on Poverty, University of Wisconsin – Madison.

In this paper, Meyer and Dworsky estimate the effects of a shift from a mandatory review of child support orders to an optional review. The authors estimate the fiscal effects of this policy change at the federal and state level. The following table provides summary information on this study.

Table 11-1. Study Summary

Period Covered	Forecasts for 1998
Geographic Scope	National
Population Covered	AFDC and Non-AFDC child support cases
Data Sources	Published state level data, program administrative records
CSE components analyzed	Child support orders and payments
Comparisons Made	The study compares child support outcomes under policies of optional and mandatory review of child support orders.

Data and Methods

The authors used several data sources. When available, published state level data were used. Alternatively, the authors sent requests to the IV-D program directors in each state. Finally, if other sources were unavailable, the authors used estimates drawn from the six states that piloted the mandatory review process in the late 1980s and early 1990s.

This analysis is based on several underlying assumptions. The authors assumed that TANF and AFDC case loads have similar demographic characteristics, child support situations, and benefit and reciprocity patterns. In addition, the authors assume states have similar child support enforcement policies. Federal incentive payments are based on the same schedule of collections to costs used in 1996, and the Federal Medicaid Assistance Percentages (FMAPs) are assumed to be the same as 1996 rates.

Meyer and Dworsky examine the effects of the change in policy from a mandatory to an optional order revision process. The authors estimate the number of cases likely to be modified and the amount of the revised child support order under the mandatory and optional review policies. For each modified case, they estimate the increase in child support collections. Then, they calculate the difference in child support collections using both a high and low scenario.

Findings and Implications for Cost Avoidance

Table 11-2 shows the reduction in public assistance expenditures from mandatory and optional review and modification of support orders. Meyer and Dworsky estimate that the mandatory review policy would lead to 175,000 annual modifications of TANF child support orders. An optional review policy would lead to approximately 59,000 modifications. The modifications under the mandatory review policy would generate an additional \$58 to \$127 million (in 1996 dollars) in child support collections in the first year. From this, the authors conclude that a shift to an optional review policy would cost states \$136 to \$291 million and the federal government \$89 to \$184 million.

**Table 11-2. Estimated Differences Between a
Mandatory and an Optional Review Regime (in millions of 1996 dollars)**

Annual Modifications		
Mandatory Review Regime		174,800
Optional Review Regime		58,468
Difference		116,152
	Low Collections	High Collections
First Year Effects		
Difference in Collections	\$ 58	\$ 127
Additional Savings due to Mandatory Review		
Savings from TANF Collections	\$ 43	\$ 74
Savings from TANF Reciprocity	\$ 25	\$ 67
Food Stamp Savings	\$ 11	\$ 34
Medicaid Savings	\$ 43	\$ 43
Additional Direct Costs due to Mandatory Review	\$ (92)	\$ (92)
First Year Total Savings due to Mandatory Review	\$ 30	\$ 126
Annualized Three-Year Effects		
State Savings due to Mandatory Review	\$ 136	\$ 291
Federal Savings due to Mandatory Review	\$ 89	\$ 184

Source: Table 1 in Meyer and Dworsky (1997).

Meyer and Dworsky point out several important caveats and limitations of their study. First, the authors make some simplifying assumptions in their analysis which, as the authors state, are not entirely plausible. One assumption is that TANF caseloads will be similar to AFDC caseloads in terms of demographic characteristics and child support situations. Another assumption is that TANF benefits and participation patterns will be similar to AFDC benefits and participation patterns. The authors also has to make assumptions about child collection rates. In many cases the data required for the analysis were unavailable for some states, and based on small samples for other states. Because some assumptions are less plausible than others, and because some of the key parameters in the model are imprecise estimates themselves, the authors performed a sensitivity analysis on several key assumptions and parameters in their model. The sensitivity analysis showed that the cost and savings estimates vary widely depending on the assumptions used. For example, the estimated first year savings due to mandatory review range from \$30 million to \$126 million depending on whether a pessimistic or an optimistic assumption is made regarding child support collection rates (see Table 11-2).

12. Child Support Enforcement and Welfare Reform⁵⁵

Description

In this paper, Nixon takes advantage of variation in IV-D program activities across states and over time to estimate the marginal return to IV-D program expenditures. A state's annual child support collections are hypothesized to be a function of (1) the resources a state devotes for IV-D program activities (measured as IV-D program expenditures), (2) the ability of non-custodial parents to pay, and (3) the characteristics of custodial households on whose behalf collections are made. The following table provides summary information on this study.

Table 12-1. Study Summary

Period Covered	1979 through 1991
Geographic Scope	National
Population Covered	All child support cases
Data Sources	Published state level data
CSE components analyzed	expenditures by State IV-D programs
Comparisons Made	Effectiveness of IV-D program expenditures for AFDC and non-AFDC households

Data and Methods

The data used for this analysis consist of 663 annual state level observations for the years 1979 to 1991. Nixon estimates a multivariate regression model to estimate the relationship between child support collections and expenditures by state IV-D programs. She holds constant other factors that are hypothesized to be correlated with child support collections. In addition, she concludes state and time dummy variables in the model to capture unobserved differences across states and over time that affect a state's ability to collect child support.

The dependent variable used in the analysis is the natural log of child support collections.⁵⁶ Three different specifications of child support collections are used: (1) total collections, (2) total collections for AFDC cases, and (3) total collections for non-AFDC cases. Explanatory variables include the natural logs of (1) state level expenditures on IV-D program activities; (2) number of residents (in millions) who are 0-17 years old, 18 to 44 years old, 45-64 years old, and 65 or older; (3) percent of births to unwed mothers; (4) per capita income (in thousands of dollars); (5) unemployment rate; and (6) maximum level of AFDC benefits for a family of four (in thousands

⁵⁵ Nixon, Lucia (1996). *Child Support Enforcement and Welfare Reform*. Mathematica Policy Research, August 1996.

⁵⁶ Nixon uses a log-log model that allows the marginal returns to CSE to be non-linear. Economic theory suggests that IV-D program activities have decreasing returns in the ability to collect child support. That is, the CSE system can collect some child support at relatively low cost. However, as more and more IV-D program activities are implemented to collect the remaining amount of child support owed, the returns to such efforts will decrease. At some point, the cost of collection will exceed the amount of child support collected.

of dollars). Nixon estimates different models for each of the three specifications of the dependent variable. When she uses child support collected for the AFDC population as the dependent variable, she uses IV-D program expenditures on the AFDC population as one of the explanatory variables. Likewise, when she uses collections for the non-AFDC population as the dependent variable, she uses IV-D program expenditures on the non-AFDC population as one of the explanatory variables. When she uses total collections as the dependent variable, she uses IV-D program expenditures on the AFDC population and IV-D program expenditures on the non-AFDC population as two of the explanatory variables.

Findings and Implications for Cost Avoidance

Nixon's findings suggest that marginal child support enforcement expenditures are relatively ineffective for collecting child support for AFDC cases, but are somewhat effective for collecting child support for non-AFDC cases. Each dollar spent on collection activities for the AFDC population returns only about \$0.10 in child support. Each dollar spent on collection for the non-AFDC population returns nearly \$3.30 in child support. Based on these findings, Nixon concludes that "CSE is unlikely to be an effective or cost-saving policy tool for moving AFDC recipients off welfare but may be an effective measure for preventing families from entering the welfare system."

Data limitations prevent Nixon from analyzing the returns to specific IV-D program activities and the returns to targeting specific populations. For example, the return to IV-D resources allocated for paternity establishment may be quite different than the return to collection activities such as automatic withholding of the non-custodial parents' earnings for child support. Similarly, IV-D resources targeted at divorced cases may have a different return than resources targeted at never-married cases. Returns to IV-D resources targeted at households at risk of welfare dependency will be different than returns to IV-D resources targeted at households who are at low risk of welfare dependency and households that are long-term welfare dependents.

Another limitation of the approach used in this study is its inability to completely capture the administrative cost of child support enforcement. For example, states may impose certain requirements on employers (e.g., automatic withholding for child support) that place a burden on employers. Some court costs, such as judges' salaries, are not reimbursable by the IV-D program. These non-IV-D costs of the child support system are not captured in IV-D program expenditures.

13. Participation in the CSE Program Among Non-AFDC Food Stamp Households⁵⁷

Description

This report examines three issues concerning custodial families who participate in the Food Stamps program but who do not participate in the AFDC, Medicaid, and IV-D programs. First,

⁵⁷ Abt Associates, Inc. (1994). Final Report. June 1994.

the authors investigate compliance with support obligations. Second, the authors investigate the ability of two policy scenarios—a mandate and an outreach effort—to increase IV-D program participation among the target population. Third, the authors estimate the costs and benefits of the two policy scenarios. The following table provides summary information on this study.

Table 13-1. Study Summary

Period Covered	1990
Geographic Scope	National
Population Covered	Custodial families that receive Food Stamps but do not participate in the AFDC, Medicaid, or IV-D program
Data Source	The data sources include (1) the March/April 1990 CPS Match Files, (2) the 1990 SIPP, (3) Food Stamp program quality control data for fiscal year 1991, (4) state administrative data for the July 1992 Food Stamps and IV-D program caseloads (from Alabama, Florida, New Jersey, Oklahoma, and Texas), (5) survey data from 414 custodial parents receiving Food Stamps but not receiving AFDC and Medicaid benefits, and (6) the published literature.
CSE components analyzed	Child support payments and compliance with child support orders
Comparisons Made	IV-D program participation of Food Stamps recipients under alternative policy scenarios

Data and Methods

The authors use several data sources to estimate their models and validate their results. The data sources include (1) the March/April 1990 CPS Match Files, (2) the 1990 SIPP, (3) Food Stamps program quality control data for fiscal year 1991, (4) state administrative data for the July 1992 Food Stamps and IV-D caseloads (from Alabama, Florida, New Jersey, Oklahoma, and Texas), (5) survey data from 414 custodial parents receiving Food Stamps but not receiving AFDC and Medicaid benefits, and (6) the published literature.

The authors first identify households in the CPS that could benefit from child support enforcement. The following criteria were used to identify the target population: (1) the household contained at least one child under the age of 18 whose father was not living with the child; (2) the custodial household either did not have a child support order or had an order but did not receive full payment; (3) the custodial household received Food Stamps; (4) the custodial household did not receive AFDC or Medicaid benefits; and (5) the household was not currently participating in the IV-D program. The authors estimate that the size of the target population in 1990 was approximately 300,000 households.

The authors then use logistic regression to estimate the probability that households receiving Food Stamps but not AFDC or Medicaid participate in the IV-D program. The explanatory variables in their model include the age, sex, race, education, current marital status, and

employment status of the custodial parent; total household income for the custodial household; whether the household owns a car; the frequency of contact between the non-custodial parent and the youngest child in the household; and location variables. The authors use the results from the logistic regression to predict the number of households in the target population who would likely participate in the IV-D program as the result of (1) an outreach effort, and (2) mandatory participation in the IV-D program.

Finally, the authors calculate the expected costs and benefits of the two policy scenarios using the Urban Institute's TRIM2 microsimulation model. The authors use TRIM2 to estimate the net impact of the two scenarios based on the expected reduction in Food Stamps benefits, expected changes in Food Stamps and IV-D program administration costs, and the proportion of costs and savings that accrue to the federal and state governments.

Findings and Implications for Cost Avoidance

The authors find that non-payment of child support is a serious problem among custodial households receiving Food Stamps, but not participating in the IV-D program. If child support orders could be established and 100 percent enforcement achieved for this population, the amount of child support that could potentially be collected each year is approximately \$900 million (in 1992 dollars), or approximately \$3,000 on average for each of the 300,000 households in the target population. While this analysis shows that the potential exists for enormous savings to the government in the form of reduced food stamps benefits if child support were collected from non-custodial parents, the amount of money that could actually be collected is likely to be much lower. Many of the non-custodial parents of the target population participate only intermittently in the workforce or have low earnings. In addition, if participation in the IV-D program were encouraged through an outreach effort, many of the custodial parents in the target population may refuse to participate. Likewise, if participation in the IV-D program were a mandatory requirement of Food Stamps program eligibility, some custodial parents may leave the Food Stamp program or accept sanctions.

The authors estimate the extent to which the target population would respond to outreach and mandated policies. They found that an estimated 37 percent of custodial households in the target population would respond to an outreach effort; 39 percent to 60 percent would respond to a mandate, but not to an outreach effort; and 24 percent would not respond to either a mandate or an outreach effort. Based on this information and the expected costs and savings per case, the authors estimate that an outreach effort would likely increase child support collections by \$15-\$36 million. The net savings to the federal and state governments resulting from lower Food Stamps program outlays but increased IV-D administrative costs would be approximately \$9-\$10 million. On the other hand, a mandate to participate in the IV-D program as an eligibility requirement for participation in Food Stamps would likely result in additional child support collections of \$9-\$126 million. The reduction in government welfare expenditures would be \$15-\$60 million. However, the majority of the reduction in Food Stamps expenditures under the mandate scenario comes from families who leave the Food Stamps program or accept sanctions rather than cooperate with child support enforcement efforts. Only a modest reduction in welfare expenditures would result from lower Food Stamps awards or families leaving the Food Stamps program because of the additional child support income.

The study finds that a majority of savings will accrue to the federal government, which pays 100 percent of Food Stamps benefits. The increased costs from program administration (mainly for the IV-D program) would be divided between the federal and state governments.

The criteria used to identify states to include in this study resulted in overrepresentation of Southern states (Alabama, Florida, Oklahoma, and Texas) versus non-Southern states (New Jersey). The authors anticipated that the South would be over-represented because the lower than average AFDC levels in the South increase the percentage of the population that is eligible for Food Stamps, but not for AFDC. Because of the interaction between Food Stamp and AFDC eligibility and benefit levels at the state level, one can not generalize the findings of this study.

STUDIES OF CHILD SUPPORT POLICY AND BEHAVIOR

14. The Effect of Child Support Enforcement on Marital Dissolution⁵⁸

Description

This paper examines whether child support enforcement affects a married couple's decision to divorce. Nixon provides evidence that increased child support orders and enforcement have a small deterrent effect on divorce. The following table provides summary information on this study.

Table 14-1. Study Summary

Period Covered	1988 to 1990
Geographic Scope	National
Population Covered	Households with mother present and at least on child under the age of 18
Data Source	State level data gathered from various sources and the 1998 and 1990 CPS
CSE components analyzed	Measures of overall success in collecting child support
Comparisons Made	Relates the probability of divorce to the child support enforcement climate

Data and Methods

Nixon estimates a probit model to determine the relationship between the propensity to divorce and various state characteristics, such as the child support enforcement climate and other factors that are known or suspected to be correlated with the probability of divorce. The dependent variable used in this analysis is whether a divorce occurred during the five-year window prior to the survey year. Explanatory variables include (1) demographic and socioeconomic characteristics of the mother, i.e., race, age, educational attainment, and urban/rural location; (2) state characteristics, i.e., percent Catholic, divorce rate, AFDC benefits, per capita income, average wage, percent of population 18-44 years of age, percent of population 45-64 years of age; (3) a dummy variable for survey year; and (4) variables to capture the child support enforcement climate in each state.

Because the five variables Nixon uses to capture the child support enforcement climate in the state are all highly correlated, she estimates her model separately using each child support enforcement climate variable. The five variables are (1) collection rate—the percent of IV-D cases in which a collection is made; (2) accounts receivable—the percentage of child support dollars owed that is collected; (3) average collections—average collections per IV-D case divided by the state's median household income; (4) child support enforcement composite—a score that measures IV-D program effectiveness in collection rate, collections per case,

⁵⁸ Nixon, Lucia (1997). *Journal Of Human Resources* 32(1), 159-181.

collections per dollar spent, and orders established per single parent family; and (5) GPA—the grade point average assigned to the state by the CSE Report Card prepared by the House Committee on Ways and Means.

To test whether the child support enforcement variables are proxies for other variables that are unobservable but correlated with the probability of divorce, Nixon estimates the model on a sample of women with no children. Consistent with the theory that child support enforcement should not be a determinant of divorce for couples with no children, she finds no evidence of a link between child support enforcement and probability of divorce for women ineligible for child support. In addition, Nixon estimates the divorce equation with different subsamples of households—all ever-married mothers, all ever-married women, and all women—to determine if sample selection bias could be affecting her results. Her results suggest that there is no problem of sample selection bias.

Findings and Implications for Cost Avoidance

The principal finding of this analysis is that child support enforcement does affect the likelihood that a couple will divorce. After controlling for factors that are hypothesized to be determinants of divorce, couples living in states with higher measures of child support enforcement performance are slightly less likely to divorce than couples living in states with lower measures of child support enforcement performance. The coefficients of other explanatory variables in the model have the expected sign.

The magnitude of the effect appears to be quite small, however. A one-percentage point increase in the collection rate reduces the probability of divorce by 0.09 percentage points. (Approximately 12 percent of the population studied was divorced in the five-year window prior to the survey year). A one percent increase in accounts receivable, average collections, child support enforcement composite, and GPA reduced the probability of divorce by 0.05, 1.1, 0.7, and 1.4 percentage points, respectively.

Because households headed by never-married mothers have become an increasing proportion of welfare recipients, one would like to be able to make inferences about the unmarried population. In particular, do IV-D program activities affect the probability that unmarried parents will separate? This study does not address this issue.

Also, this study does not allow us to determine the number of divorces that are prevented by the existence of the IV-D program. This study does, however, provide evidence that more aggressive IV-D program activities could prevent a small number of divorces. Before these findings can be used to measure cost avoidance, further research is needed to quantify exactly how many divorces may be prevented as a result of IV-D program activities, how many of these prevented divorces would have resulted in welfare dependency, and the expected impact on public assistance.

15. Effects of Child Support on Remarriage of Single Mothers⁵⁹

Description

This paper focuses on the relationship between child support enforcement and the remarriage behavior of mothers who retain custody of their children. In particular, the analysis examines the relationship between the probability of remarriage and the level and regularity of receipt of child support.

Table 15-1. Study Summary

Period Covered	1984 through 1988. Divorced mothers were followed for an average of 22 months following divorce, with individual observations ranging from three months to 44 months following divorce
Geographic Scope	Wisconsin
Population Covered	White, divorced, custodial mothers
Data Source	Wisconsin court records, tax records, program administrative files, and a survey of parents
CSE components analyzed	Level and regularity of receipt of child support
Comparisons Made	Probability of remarriage and the level and regularity of receipt of child support

Data and Methods

Yun employs a discrete-time model using occurrence of remarriage during a specific time period as the dependent variable. The explanatory variables include 1) various measures of household income, including AFDC income; 2) measures of the mother's socioeconomic status at the time of divorce; 3) income of non-custodial fathers; 4) demographic variables, including age at time of divorce, age at first marriage, number of children, age of youngest child, whether the mother lived in an urban county; 5) variables related to the parents' divorce process, such as who initiated the divorce and duration of the divorce process; and 6) variables to indicate whether child support was paid and the amount of support paid.

The data for this analysis consist of a sample of 1,025 households in Wisconsin headed by white, divorced mothers who retained custody of their children. These women all had their first child support award orders issued between January 1984 and June 1986. The database used in this analysis was created by merging household level data gathered through a survey of households (the Parent Survey) with three data sets containing administrative records collected by counties and the state of Wisconsin—the Court Record Database (CRDB), tax records, and welfare records. The Parent Survey was conducted by the Institute for Research on Poverty, University of Wisconsin-Madison, in 1987 and early 1988.

⁵⁹ Yun, Kwi (1992). In Garfinkel, I., McLanahan, Sara, and Robins, Phillip (Eds.). *Child Support Assurance: Design Issues, Expected Impacts, and Political Barriers as Seen from Wisconsin*. Washington, D.C.: Urban Institute Press.

Findings and Implications for Cost Avoidance

One of the principal findings from this study is that the regularity of child support payments appears to have a small, but statistically significant, effect on the probability of remarriage. Women who receive child support on an irregular basis have a slightly higher probability of remarriage than women with more regular support receipts. In addition, the probability of remarriage within a given time period following divorce is negatively related to the amount of child support received.⁶⁰ However, the result is not statistically significant.

One limitation of this study is that the sample excludes separated mothers, never-married mothers, and non-white mothers. This limits our ability to generalize the results of this study to important sub-populations who receive public assistance.

In addition, due to data limitations, this study analyzes the remarriage behavior of women over a relatively short period of time following divorce. Divorced mothers were followed for an average 22 months following divorce, with individual observations ranging from 3 months to 44 months following divorce. Consequently, the analysis cannot capture the lifetime remarriage behavior of women. Many women eventually remarry, although remarriage may take several years and thus fall outside the observation window.

Finally, Wisconsin's child support enforcement system, welfare programs, and other social programs (e.g., job training) are generally more progressive than programs in other states. Consequently, the results of Wisconsin's IV-D program activities might not apply to the rest of the nation.

16. The Effects of Stronger Child Support Enforcement on Never-married Fertility⁶¹

Description

In this paper, Case examines the relationship between child support enforcement and out-of-wedlock births using state variation in out-of-wedlock birth rates and IV-D program policies across states and over time. The five specific IV-D program activities and policies examined include (1) use of genetic testing to establish paternity, (2) long-arm statutes to pursue absent fathers in other states, (3) state regulations to allow establishment of paternity to age 18, (4) mandatory withholdings when payments are in arrears, and (5) state adoption of presumptive child support guidelines. The following table provides summary information on this study.

⁶⁰ Remarriage behavior of divorced mothers was observed for a period of time ranging from three months to 44 months following divorce. The average observed period of time was 22 months.

⁶¹ Case, Anne (1996). *The Effects of Stronger Child Support Enforcement on Never-married Fertility*. Princeton University, November 1996.

Table 16-1. Study Summary

Period Covered	1979 to 1991
Geographic Scope	National and state level
Population Covered	All unmarried women aged 15 to 44
Data Source	State level data from various sources
CSE components analyzed	CSE components analyzed include: 1) Use of genetic testing to establish paternity, (2) long arm statutes to pursue absent fathers in other states, (3) state regulations to allow establishment of paternity to age 18, (4) mandatory withholdings when payments are in arrears, and (5) state adoption of presumptive child support guidelines.
Comparisons Made	The effect of child support enforcement on out-of-wedlock births

Data and Methods

This analysis uses state level data from 1978 to 1991. The dependant variable is birth rates for unmarried women aged 15-44. Explanatory variables include indicators of the five IV-D program activities/policies listed above, state economic conditions (i.e., per capita income), state demographics (e.g., state population, proportion elderly, proportion black), and maximum levels of AFDC benefits. In addition, Case controls for differences in the political climate by including measures that identify the political party in control of the legislative and executive branches of state government and the participation of the state legislature that is female. Case employs both ordinary least squares (OLS) regression analysis and two-stage least squares (TSLS) analysis to estimate the effect of IV-D program policies on out-of-wedlock birth rates. The OLS analyses assume that IV-D program policies are exogenous to out-of-wedlock birth rates, while the TSLS analyses allow for an endogenous relationship between IV-D program policies and out-of-wedlock birth rates. Six models are estimated, first using ordinary least squares (OLS) and then using two-stage least squares (TSLS). In five models, the child support enforcement measures are entered separately. The sixth model contains all five child support enforcement measures.

Findings and Implications for Cost Avoidance

Case finds a negative and statistically significant relationship between out-of-wedlock birth rates and two IV-D program policies, mandatory withholding and long-arm statutes, using both OLS and TSLS. The pattern holds both when separate regressions are estimated that contain only one of these child support enforcement measures at a time, and when a regression is estimated that contains all the child support enforcement measures. In the OLS models, measures indicating the adoption of stricter paternity establishment and presumptive guidelines are positively correlated with out-of-wedlock childbearing, which is the opposite sign as expected. Using TSLS, Case finds a negative correlation between out-of-wedlock childbearing and the adoption of (1) stricter paternity establishment and (2) presumptive guidelines.

Case finds that the proportion of the state legislative assembly that is female is positively and significantly correlated with the adoption of tougher (on non-custodial parents) IV-D program policies and activities. In addition, Democratic control of both legislative houses is negatively

and significantly correlated with adoption of stricter paternity establishment and presumptive guidelines, but positively and significantly correlated with adoption of long-arm statutes. Hence, it appears necessary to control for the potential endogeneity between a state's IV-D program activities and out-of-wedlock birth rates when analyzing the effect of child support enforcement on never-married births.

The main limitation of this study for measuring cost avoidance is that the findings cannot easily be converted into measures of dollar savings.

17. Better Child Support Enforcement: Can It Reduce Teenage Premarital Childbearing?⁶²

Description

Plotnick, et al. (1998) use cross-state variation in child support enforcement and variation over time to analyze the effect of child support enforcement on out-of-wedlock childbearing. While most of the relevant research on childbearing focuses on the determinants of a woman's decision to bear children, this study focuses on the man's decision to father a child. The cost of fatherhood is expected to increase as child support enforcement increases. Thus, the authors test the hypothesis that increased levels of child support enforcement will deter some men from fathering children out of wedlock. The following table provides summary information on this study.

Table 17-1. Study Summary

Period Covered	1980 to 1992
Geographic Scope	National, state level observations
Population Covered	Unmarried women aged 15 - 45
Data Source	State level data from various sources
CSE components analyzed	Paternity establishment; Overall level of state child support enforcement
Comparisons Made	Relationship between child support enforcement and never-married fertility rates

Data and Methods

The data consist of 663 state level observations from 1980 to 1992 for all 50 states plus the District of Columbia. State level demographic and economic data were obtained from the 1980 and 1990 Censuses, and were interpolated for the years 1981-1989 and extrapolated for the years 1991-1992 based on the 1980-1990 trend. Demographic variables consist of state population, number of females aged 15-45, number of unmarried females aged 15-45, percent of state population that is black, percent of state population that is Hispanic, percent of state population with income below 100 percent of the federal poverty line, percent of state population living in

⁶² Plotnick, R.D., Garfinkel, I., Gaylin, D.S., McLanahan, S., Ku I. (1998) "Better Child Support Enforcement: Can It Reduce Teenage Premarital Childbearing?" Submitted for publication.

urban areas, and percent of state population with less than a high school education. Economic variables consist of median annual manufacturing wage for all workers, median annual manufacturing wage for female workers, the unemployment rate, percent of the labor force that is female, and estimates of welfare benefits paid to the state's population. Fertility data were obtained from the National Center for Health Statistics publications, which contained counts of births by marital status, state, and year. State level data on number of paternities established, average annual number of AFDC cases, child support dollars collected for AFDC cases, and AFDC child support dollars collected per administrative dollar spend were obtained from OCSE reports. In addition, the authors collected and used data indicating when states implemented various IV-D program activities and policies.

The authors estimate a semi-log model to examine the relationship the current out-of-wedlock birthrate and the child support enforcement measures, demographic variables, and economic indicators (lagged one year). Ordinary least squares (OLS) were used to estimate the models. State and year dummy were included to control for fixed effects across states and over time.

Findings and Implications for Cost Avoidance

The authors found that states with greater rates of paternity establishment and higher average child support collections (for AFDC cases) have lower rates of out-of-wedlock births. The authors divided states into quartiles based on their paternity establishment rates. States that are in the lowest quartile (i.e., those states with the lowest rates of paternity establishment) have out-of-wedlock birthrates that are four percent higher than states in the second quartile, 10.5 percent higher than states in the third quartile, and 6.5 percent higher than states in the top quartile. These statistically significant findings are consistent with the hypothesis that policies that raise the financial cost of fatherhood may be successful in lowering the number of out-of-wedlock births. However, evidence of a relationship between child support enforcement and never-married fertility rates does not establish a causal link.

As Case (1996) and others point out, the relationship between child support enforcement and never-married fertility rates may reflect differences in community attitudes that the researcher cannot hold constant in the analysis. One method to determine whether unobserved factors affect both birth rates and the adoption of state IV-D program policies is to estimate the regressions using the birth rate for married women age 15 to 45 as the dependent variable. If the positive relationship between birth rate and paternity establishment rates disappears when birthrates among married women are used as the dependent variable, then this would strengthen the findings of this study.

Although the deterrent effect of child support enforcement activities on out-of-wedlock childbearing may be small, if such an effect exists, the deterrent effect could have a modest effect on public welfare expenditures. The information in this study (and similar studies) would be of more use to policymakers if the deterrent effect of IV-D program activities on out-of-wedlock childbearing could be quantified in dollar savings.

18. Changes in the Relationship Between Child Support Payments and Educational Attainment of Offspring, 1979-1988⁶³

Description

This study analyzes the effect of child support on the educational attainment of children age 16 to 19 in the United States. The authors compare educational attainment for children in non-intact families that receive child support, children in non-intact families that do not receive child support, and children in intact families. Educational attainment is measured using three indicators: (1) years of school completed; (2) child's grade relative to grade child should be in based on his or her age; and (3) whether or not the child graduated from high school. The following table provides summary information on this study.

Table 18-1. Study Summary

Period Covered	1979 and 1988
Geographic Scope	National
Population Covered	Children ages 16-19 living with their mother. The authors compare educational attainment for children in non-intact families that receive child support, children in non-intact families that do not receive child support, and children in intact families
Data Source	1979 and 1988 CPS
CSE components analyzed	Receipt of child support on child's educational attainment
Comparisons made	The educational attainment of children who receive child support versus the educational attainment of children (1) who do not receive support that has been awarded (2) children in intact families

Data and Methods

This analysis uses data from the 1979 and 1988 Current Population Survey March/April Matched Files. Analyses are conducted separately for both years. The 1979 sample consists of 4,734 children ages 16-19 living with their mother. The 1988 sample includes 4,169 children. Educational attainment, the dependent variable, is measured in three ways: (1) years of schooling completed; (2) whether the child has dropped out of school or fallen one or more grades behind; and (3) whether the child has graduated from high school. Demographic and economic variables included in the models are age; race; ethnicity; mother's age at child's birth; mother's years of education; whether mother is working, on welfare, remarried, or never married; family income; mother's earnings; whether household income is below the poverty threshold; and the amount of child support received.

⁶³ Hernandez, Pedro, Beller, Andrea and John Graham (1995). "Changes in the Relationship Between Child Support Payments and Educational Attainment of Offspring, 1979-1988." *Demography* 32: 249-259.

Hernandez et. al. Estimate an ordinary least squares regression to determine the effect of the explanatory variables (including receipt of child support) on years of schooling. The authors estimate a probit model to determine the effect of the explanatory variables on the other two measures of educational attainment.

Findings and Implications for Cost Avoidance

The authors find that children who receive child support consistently have higher levels of educational attainment than do children who do not receive the child support they have been awarded. In addition, after controlling for socioeconomic factors, the educational attainment of children who receive child support is not statistically different from the educational attainment of children from intact families. In comparison, the authors found that children in non-intact families that do not receive child support have, on average, approximately 0.2 fewer years of education than children whose families receive child support. Also, the percentage of children behind in school is approximately three percentage points greater for children in non-intact families that do not receive child support. The percentage of children from non-intact households that graduate from high school is slightly higher (by 1.5 percentage points) than for children whose families do not receive child support, but this last finding is not statistically significant.

One limitation of this study is that even the most recent data (for 1988) are over a decade old. To estimate the impact of child support on cost avoidance via its effect on the educational attainment of children, one also needs to know the implications of additional schooling on public expenditures. In particular, one needs to know the implications of additional schooling on future earnings (that affects both future tax revenues and the probability of future welfare dependency) and the effect on the cost of other social programs. Limited research in these areas provides mixed evidence that higher educational attainment has implications for public programs. For example, Ashenfelter and Krueger (1994) estimate that each additional year of high school education increases wages by between 12 and 16 percent. However, others (e.g., Kandel et al., 1984) find evidence that differences in high school attainment have little impact on future earnings.

19. The Effects of Child Support Payments on Developmental Outcomes for Elementary School-Age Children⁶⁴

Description

In this study, Knox investigates the extent to which child support income affects a child's academic achievement and cognitive development. Previous studies have shown that children from single parent families that receive child support have higher educational attainment, on average, than children from single parent families that do not receive child support. This finding even holds after controlling for differences in the socioeconomic characteristics of the household, including total household income. Possible reasons for the finding that child support

⁶⁴ Knox, Virginia (1996). "The Effects of Child Support Payments on Developmental Outcomes for Elementary School-Age Children." *Journal of Human Resources* 31(4), 816-40.

appears to impact educational attainment, even after controlling for the income effect, include (1) there is less stigma attached to the receipt of child support than to other forms of income (e.g., welfare benefits); (2) non-custodial parents who pay child support are more likely to spend time with their child, and contact with the non-custodial parent is the factor that influences educational attainment; and (3) there are unobserved (to the researcher) systematic differences between custodial households that receive child support and custodial households that do not receive child support, and these differences are correlated with educational attainment. The following table provides summary information on this study.

Table 19-1. Study Summary

Period Covered	1984 through 1988
Geographic Scope	National
Population Covered	Households headed by custodial mothers; the children were living in the household in both 1986 and 1988; the father of the children was absent for at least one year between 1984 and 1988; and the children were between 5 and 8 years old in 1986 and between 7 and 10 years old in 1988
Data Source	National Longitudinal Survey of Youth (NLSY)
CSE components analyzed	Average child support; Academic achievement and cognitive development of children who receive child support
Comparisons Made	Children's academic achievement and cognitive development.

Data and Methods

The data for this analysis come from the National Longitudinal Survey of Youth (NLSY). Knox analyzes a subsample of households that meet the following criteria: (1) the household is headed by a custodial mother and the children were living in the household in both 1986 and 1988 (at the time the developmental tests and home inventories were performed); (2) the father of the children was absent for at least one year between 1984 and 1988; and (3) the children were between five and eight years old in 1986 and between seven and 10 years old in 1988.

This analysis utilizes two outcome measures that are hypothesized to be good predictors of educational success. The first measure is the sum of each child's Peabody Individual Achievement Test (PIAT) reading recognition and math scores. The second measure is an assessment of the level of cognitive stimulation available in the child's home. This measure is determined using a sub scale of the Home Observation for Measurement of the Environment (HOME) that takes an inventory of items in the child's home and family activities that are hypothesized to enhance cognitive development.

Knox estimates a linear model that explores the relationship between these outcome measures and factors that are hypothesized to be correlated with these outcomes using ordinary least squares techniques. The explanatory variables include measures of income (average child support and average household income), characteristics of the child, mother's characteristics (including mother's AFQT score, educational attainment, and age), father's characteristics

(including educational attainment and age), mother's marital status (never married, divorced, separated, widowed), number of years child was in single parent family, and characteristics of the state of residence (per capita income, state spending on education per pupil, and infant mortality rate). Separate models are estimated relating the effect of these explanatory variables on achievement test score and HOME cognitive score.

Knox expands the model to include a measure of contact between the non-custodial father and the child. In addition, she uses an instrumental variable approach in which predicted child support is entered into the model in place of actual child support payments. The purpose of these two analyses was to determine if contact with the father or unobserved differences that were correlated with both receipt of child support and performance on the two outcome measures could explain the relationship between child support and the outcome measures.

Findings and Implications for Cost Avoidance

The main finding of this study is that the coefficients on household income and on child support income are both positive and statistically significant for both models after controlling for characteristics of the child, custodial mother, non-custodial father, and other factors. This provides evidence that child support income has more than just an income effect on academic achievement and cognitive development of children in single parent families. For every \$100 increase in average (i.e., annual) child support a child's achievement test score rises by about one-eighth of a point (approximately 0.06 percent of the mean score of 201.58) above that of a child with the same level of household income and holding other factors constant. The score on the HOME cognitive stimulation assessment rises by approximately one-tenth of a point (approximately 0.1 percent of the mean score of 96.96). Although the findings are statistically significant, they are small in absolute terms. Even when the income effect and the "child support" effect are combined, the impact of child support on a child's academic achievement score and cognitive stimulation assessment score are very small.

The inclusion of a measure of contact between the non-custodial father and the child has no significant effect on Knox's findings that child support is positively correlated with the two outcome measures. When Knox uses the instrumental variables approach, she finds that the relationship between predicted child support and achievement test and HOME cognitive scores is no longer statistically significant.

The overall findings from this study support the hypothesis that child support has a small impact on a child's educational success. However, the measures used in this study do not directly measure a child's educational attainment. In addition, the impact of child support on these measures of academic achievement is very small, suggesting that any impact on future public expenditures is likely to be limited.

20. Child Support, Welfare Dependency, and Women's Labor Supply⁶⁵

Description

In this paper Hu evaluates the impact of various child support policies on AFDC participation and participation in the labor force of divorced and separated women. Hu's research contributes to the body of literature on the impact of child support policies in several ways. First, Hu simultaneously analyzes child support payments and awards, participation in the labor force and hours worked, the decision to remarry, and participation in welfare programs. Most previous research has looked at each of these issues individually, disregarding the possibility that such decisions are jointly determined. Second, Hu models women's labor supply separately for women on AFDC and women off AFDC. The impact of child support policies on labor force participation and hours worked will differ substantially between these two groups of women because of the high implicit tax on earnings and child support receipts for women on AFDC.

This analysis investigates the effect of child support on the labor force supply of unmarried women only. However, because remarried women are less likely to participate in welfare programs, this limitation has small implications for cost avoidance. The following table provides summary information on this study.

Table 20-1. Study Summary

Period Covered	1969 through 1987
Geographic Scope	National
Population Covered	Population of divorced or separated women living in the US with custody of children age 18 or younger.
Data Source	National data sources use was the Panel Study of Income Dynamics (PSID) was matched with state level data on unemployment rates, maximum AFDC benefits, and child support regulations based on the women's state of residence and survey year
CSE components analyzed	Effect of child support on custodial mothers' labor supply
Comparisons Made	Hu models women's labor supply separately for women on AFDC and women off AFDC.

Data and Methods

The main source of data for this analysis is the Panel Study of Income Dynamics (PSID), a longitudinal survey conducted annually since 1968. The PSID tracks both spouses following divorce or separation. The survey collects detailed information on the family structure, income, participation in the labor force, and participation in welfare programs. The sample used in this analysis consists of 665 women who became heads of households following a divorce or

⁶⁵ Hu, Wei-Yin (1999). "Child Support, Welfare Dependency, and Women's Labor Supply." *The Journal of Human Resources*, Vol. 4 No. 1, pp. 71-103. See also: Hu, Wei-Yin (1994). *The Impact of Child Support Reform on Welfare Program Participation and Female Labor Supply*. Stanford University. Ph.D. Dissertation.

separation between 1969 and 1987. These women all had custody of children age 18 or younger. Additional state level data on unemployment rates, maximum AFDC benefits, and child support regulations were matched with the PSID data based on the women's state of residence and survey year.

The purpose of this analysis is to estimate the effects of child support on the joint decisions to participate in welfare programs, participate in the labor force, and remarry. However, child support payment outcomes are likely endogenous to these decisions. Most states determine child support awards based on past and expected future earnings of both parents. Consequently, factors that will likely affect a woman's decision to participate in the work force, participate in a welfare program, and remarry are likely correlated with the child support outcome.

To address this endogeneity problem Hu uses an instrumental variables procedure. First, child support payments are predicted based on the characteristics of the mother and father, as well as the child support policies that exist in the state of residence at the time of the marital breakup. Then, the predicted level of child support is used to predict the impact on probability of remarriage, participation in the labor force, and participation in welfare programs.

Using joint maximum-likelihood estimation, the labor supply equation of women participating in AFDC, the labor equation of women not participating in AFDC, the probability of remarriage in a given year, and the probability of participating in AFDC are simultaneously estimated. This set of equations is estimated separately for women in their first year of divorce/separation, for women in their second year, and so on, for a total of five years. Separately analyzing each subsample of women allows one to determine if the estimates vary over time due to factors that are not controlled for in the remarriage and AFDC participation equations—such as post-divorce work experience and participation in a government training program.

Findings and Implications for Cost Avoidance

The principal finding of this study is that a sufficiently large increase in child support payments (either through higher awards or collection of existing awards) can decrease AFDC participation and increase labor force participation. Part of the decrease in AFDC participation is “mechanical” in that higher child support payments make some households ineligible for AFDC. However, some of the expected decrease is due to behavioral changes. Hu estimates that a \$1,000 increase in annual child support payments to women on AFDC, conditional on remaining unmarried, will decrease AFDC participation among these households by three to four percentage points. Approximately 61 percent of the effect is mechanical; the remaining 39 percent of the effect is the result of behavioral changes. The same \$1,000 increase in child support will likely increase average hours worked by nine to 53 hours per year. Hu finds no impact of child support payments on probability of remarriage. Hu's findings for each of the five years are generally consistent and statistically significant.

Hu does not specifically estimate the impact of child support on cost avoidance via its effect on remarriage, labor force participation, and participation in welfare programs. However, the findings do show that a substantial increase in child support payments will have a small impact on participation in welfare programs, that in turn leads to cost avoidance.

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