

The Role of Child Support in Texas Welfare Dynamics

Deanna T. Schexnayder
Jerome A. Olson
Daniel G. Schroeder
Jody L. McCoy

September 1998

Center for the Study
of Human Resources



Lyndon B. Johnson School of Public Affairs
The University of Texas at Austin
107 West 27th Street Austin, TX 78712 (512) 471-7891

This report was prepared with funds provided through Grant No. 96ASPE283A from the U.S. Department of Health and Human Services and an interagency agreement between the Texas Workforce Commission and the Center for the Study of Human Resources at The University of Texas at Austin. The views expressed here are those of the authors and do not represent the positions of the funding agencies or of The University.

Table of Contents

Table of Contents	i
List of Tables	iii
List of Figures	iii
Acknowledgements	v
Executive Summary	vii
I. Introduction	1
A. Purpose of the Study	1
B. Relevance to Policy Development	1
C. Outline of the Report	2
II. Background	4
A. Welfare Dynamics and Child Support: A Research Summary	4
National Studies	4
Texas Studies	5
B. Welfare and Child Support in Texas: An Overview of Programs and Policies	6
Welfare	6
Child Support	7
III. Research Methods	10
A. Research Questions	10
B. Data Sources and Sampling Plan	10
C. Statistical Methods Applied	11
D. Research Limitations	12
IV. Research Results	14
A. Characteristics of the Research Sample	14
Demographics of AFDC Caretakers	14
Child Support Cases of AFDC Caretakers	15
Employment and Earnings of AFDC Caretakers and Noncustodial Parents	17
B. Award and Collection of Child Support	19
Process Used to Obtain Child Support Award and Collect Child Support	19
Amount of Child Support Orders and Collections During the Study Period	21
Results from Statistical Inference	22
C. AFDC Exits	29
Descriptive Statistics	29
Factors Influencing AFDC Exits	31
D. AFDC Recidivism	35
E. Exits from Poverty	37

V. Conclusions and Future Research Agenda	39
Bibliography	41
Appendix A: Technical Appendix	

List of Tables

Table 1. Selected Characteristics of AFDC Caretakers	16
Table 2. Child Support Statistics	17
Table 3. Employment and Earnings Statistics	18
Table 4. Hierarchical Order Steps to Establish Child Support	20
Table 5. OAG Cases by Highest Case Status	20
Table 6. Aggregate Obligations and Collections (Annual Basis)	22
Table 7. Factors Influencing the Establishment of a Child Support Order and Amount of the Order	24
Table 8. Factors Influencing Collection of Child Support	27
Table 9. Factors Influencing AFDC Exits and Recidivism	32

List of Figures

Figure 1. Aggregate Child Support Collections (for Entire Sample)	21
Figure 2. Distribution of Child Support Collections	30
Figure 3. Quarterly Probability of Exit from AFDC	31
Figure 4. One Year Recidivism Rate for Exits and Grant Jeopardy Exits	36
Figure 5. Exits from Poverty	37

Acknowledgements

The authors of this report would like to extend their gratitude to the many agencies and individuals who assisted us during the course of this project. In particular, we appreciate the patience and good humor of Linda Mellgren, our project officer at the U.S. Department of Health and Human Services (HHS), in dealing with all of the delays that occurred in seeing this project through to its completion. We also especially would like to thank Alice Embree of the Texas Office of Attorney General (OAG) for sharing with us the vision of this project's potential, helping us to clear the administrative hurdles that appeared during its development, and providing ongoing guidance about child support policies in Texas. Finally, we would like to thank Jere Goldgar and Lela Dyson of the Texas Workforce Commission (TWC) for providing additional financial support for this initiative.

This project would not have been possible without the administrative data files contributed by the OAG, the Texas Department of Human Services (DHS), and TWC. A number of persons were instrumental in helping the project team to obtain the needed data files and to understand the nuances of these records. In particular, we would like to thank Yi-Sheng Hwang, formerly of the OAG, Lea Isgur and Donna Albright of DHS, and Jere Goldgar, Lynnette Preece, and John Hahn of TWC for their assistance with these tasks.

A number of persons contributed to this project in other ways by either reviewing and commenting on the final report, providing a forum for us to present findings from this research, or dealing with internal administrative approvals needed for us to conduct this research. We wish to express our gratitude to Sandi Simon of DHS, Larry Temple of TWC, Burt Barnow of Johns Hopkins University, Tim Dall of the Lewin Group, and Kelleen Kay of HHS for providing assistance of this type.

Finally, we are thankful to our colleagues at the Center for the Study of Human Resources who contributed to the completion of this project. Christopher King reviewed and commented on the final report. Ana Maria Arumi assisted with the processing of the administrative data files. Diane Tucker monitored all of the financial and contractual aspects of this project, and Karen Franke provided her expert assistance in formatting this report into its final form

Executive Summary

The Family Support Act of 1988 (FSA) mandated a number of policy changes to increase the employability of caretakers receiving Aid to Families with Dependent Children (AFDC) and to improve the collection of child support from noncustodial parents. Some states, including Texas, enacted state legislation to strengthen their child support enforcement procedures prior to these federal mandates. This research study by the Center for the Study of Human Resources at The University of Texas at Austin (CSHR) measures the influence that increased child support enforcement strategies have had on welfare dynamics in Texas, which has one of the lowest AFDC grant levels in the U.S but relatively high rates of paternity establishment and child support collection.

Research Questions

This project investigated four primary research questions:

1. Which factors have the greatest influence on the award and collection of child support in Texas?
2. To what extent does child support influence AFDC exits in Texas?
3. To what extent does child support reduce AFDC recidivism in Texas?
4. What is the combined influence of child support and earnings of the custodial parent in removing families from poverty?

Research Methods

This analysis was conducted by statistically analyzing a sample of 65,616 Texas AFDC caretakers who were receiving AFDC as of September 1, 1992. Individual-level administrative data records for these AFDC caretakers, their children, and the noncustodial parents of the children were analyzed for a four-year period from September 1992 through August 1996. The longitudinal dataset used in the analysis was developed by linking AFDC demographic, spell, and benefits data; child support award, collection, distribution, and demographic data; Job Opportunity and Basic Skills (JOBS) program participation data; and Unemployment Insurance (UI) wage data for this time period.

Two main statistical approaches were used in the analysis—descriptive statistics and statistical inference. Descriptive statistics were used to provide an understanding of the nature of Texas AFDC caretakers and noncustodial parents, and changes in various child support statistics over time. Statistical inference was used to measure the extent to which each of the AFDC- and child support-related attributes contributed to the probability of having a child support award, receiving child support collections, and exiting and returning to AFDC.

Research limitations of this study primarily centered on missing or inadequate data in the administrative files used for the analysis. In particular, more information was needed on demographic characteristics and out-of-state employment of noncustodial parents. The lack of historical records for some variables also limited their usefulness.

Research Findings

This study has revealed additional information about the characteristics of Texas AFDC families and noncustodial parents for whom the state is trying to collect child support, the factors influencing the award and collection of child support, and the influence of child support on AFDC exits, recidivism, and families' ability to leave poverty. Results for each of these areas are summarized below.

Characteristics of AFDC Caretakers and Noncustodial Parents

While the demographic characteristics of the AFDC caretakers have been explored in prior Texas welfare dynamics studies, this study provides additional information about the nature of their relationship with the noncustodial parents of their children. As learned from prior studies, most Texas AFDC caretakers had one or two children, were either Hispanic or Black, and less than half had graduated from high school. Over half had received AFDC for more than 30 months at the time the sample was drawn and 14 percent were participating in the JOBS program. While slightly more than a quarter were employed, their earnings were very low. About one third of the sampled caretakers had given birth to all of their children out of wedlock, one third had some out of wedlock, and the remaining third had all of their children while married.

By the end of the four-year study period, only 35.9 percent of the sampled caretakers were still receiving AFDC. While the share who were employed had risen to 40 percent, earnings were still low enough that almost all families still qualified for Food Stamps. The share of caretakers with all children born out of wedlock had fallen, suggesting that some women had married prior to having additional children.

Although demographic information about the noncustodial parents was limited, earnings were calculated through the use of Texas quarterly wage records. Of the noncustodial parents for whom SSNs were known (64 percent of all noncustodial parents in the OAG files), approximately 45 percent were employed in Texas at the beginning of the observation period. This rate fluctuated little during the four-year period. Median quarterly earnings for these noncustodial parents rose from \$2,751 during the fourth quarter of 1992 to \$3,525 four years later, an increase of 28 percent. While an additional number of noncustodial parents were probably employed outside of Texas, this rate could not be determined to the inadequacy of the earnings and residency data used for this study. Learning more about the demographic characteristics and the employment and earnings patterns of noncustodial parents is an area needing further study.

Award and Collection of Child Support

At the time the sample was taken, only six percent of the sampled AFDC caretakers were receiving any child support payments. For another 55 percent of the cases, the OAG was performing the steps necessary to establish a child support order or obtain collections. For nearly 40 percent of the cases, the OAG had not received sufficient information to open a case. By the end of four years, 90 percent of the cases had been acted upon by the OAG; 16 percent of the AFDC caretakers were receiving payments while child support cases had been opened and were being processed for another 74 percent of AFDC cases. On average, each caretaker had 1.35 child support cases, due to the need to file separate proceedings for each noncustodial parent. Over the course of the study, paternity tests to determine the noncustodial parent were conducted for four percent of the sample, with paternity established for 88 percent of the administered tests.

The amount of child support obligated for all sample members ranged from approximately \$16.5 million per quarter at the beginning of the study to \$35.3 million per

quarter four years later. Quarterly collections increased from \$5.2 million to \$21.6 million over the same time period.

The probability of an AFDC caretaker with an OAG case having an established child support award in place during any given quarter of the observation period was 47.7 percent. Variables increasing the probability of a child support award being established were: cumulative effort spent by the OAG to process the case; more than one noncustodial parent per AFDC case; older age of the youngest child in an AFDC case; Black or Hispanic race/ethnicity of noncustodial parent; and higher earnings of the noncustodial parent. Factors decreasing the probability of an award being established include: more than one child on the AFDC grant; male AFDC caretaker; noncustodial parent younger than 25 or older than 45; the AFDC caretaker's education being less than high school or unknown; and having children born out of wedlock

On average, the amount of the current child support obligation was \$467 per quarter. Factors increasing the amount of the child support obligation include: cumulative effort by the OAG, parents of different race/ethnic backgrounds, had more than two children, and higher earnings of noncustodial parents. Obligations were significantly smaller if caretakers were racial/ethnic minorities, or had not completed high school, and if some or all children were born out of wedlock. While the analysis included estimates of factors affecting the amount of past due child support obligations, these results were the least predictable of those being studied.

In this study, child support collections were analyzed on an annual basis for collections obtained through IRS intercepts and on a quarterly basis for other types of collections. Quarterly collections occurred for 38.3 percent of the cases in which there was a child support obligation. The most important factor influencing these collections was the amount of the noncustodial parent's earnings, with the probability of collection increasing by 0.81 percentage points for every \$100 of quarterly earnings. The probability of collection increased with the cumulative effort by the OAG to process cases, age of the noncustodial parents, if the noncustodial parent was Hispanic, or if children were born out of wedlock. The probability of collection was reduced if the noncustodial parent was Black, the caretaker had multiple child support cases, had more children, or the youngest child was older.

Quarterly child support averaged \$472 when collections were received. For every additional \$100 earned by the noncustodial parent in a quarter, the collection increased by \$3.52. Collection also increased with cumulative effort to process the case, age of noncustodial parents, or for families with more than one child. Factors contributing to smaller collections were female noncustodial parents, noncustodial parents of minority race/ethnic groups, the older age of the youngest child, a custodial parent with less than a high school education, or some or all children being born out of wedlock.

An IRS intercept was made in approximately one out of five of the years in which a noncustodial parent had an obligation, with an annual average of \$936 collected per case. Earnings of noncustodial parents had the strongest influences on IRS intercepts. Other factors had weaker and generally opposite effects than for quarterly collections, suggesting that IRS intercepts may be a substitute for regular payments.

Several of the desired demographic attributes of noncustodial parents that could influence the award and collection of child support (such as education level, marital status, or out-of-state residence throughout the four-year study period) could not be included in the regressions described above due to data limitations. Acquiring such data from other sources and including these variables in the analysis remain areas for future research.

AFDC Exits and Recidivism

On average, 11.7 percent of the sampled caretakers exited from AFDC during each quarter of the study. Sixteen percent of total AFDC exits occurred as a result of child support collections. Of the total child support collected, 47 percent was retained by the state to recoup the costs of AFDC, with the remaining 53 percent distributed to families.

Child support received by the custodial parent contributed strongly to the probability that a caretaker would exit AFDC. A \$100 increase in quarterly child support collections induced a 2.5 percentage point increase in the probability of exit, raising the quarterly probability of exit from 11.7 percent to 14.2 percent. The amount of child support received by an AFDC caretaker had approximately three times as much power as an equal amount of caretaker earnings in inducing exits from AFDC.

Other economic and demographic factors also influenced the probability of AFDC exit. As found in earlier research studies, caretakers who have completed high school are more likely to exit than those with lesser educational attainment while individuals with a long history of past AFDC dependence, minority caretakers, caretakers with many and younger children, and those currently participating in JOBS activities are less likely to exit. In addition, those with multiple child support cases or all children born out of wedlock also are less likely to leave the AFDC rolls. Higher unemployment rates or living in rural or large urban areas also reduced the chances of leaving AFDC.

Approximately 35 percent of all caretakers who exited from AFDC returned to the rolls within a year. For every \$100 of child support received per quarter, the probability of recidivism in that quarter was reduced by 1.0 percentage points. As with exits, the receipt of child support had over a three times larger effect on recidivism than an equivalent dollar amount of the caretaker's own earnings. Most of the other demographic and economic variables that reduced exits also increased the probability of recidivism.

By the end of the four-year study period, 8.5 percent of the original sample and 17.5 percent of families no longer on AFDC had left poverty through a combination of caretaker earnings and child support received. Of the families no longer on AFDC, 16.4 percent left poverty through custodial parent earnings alone, while the addition of child support enabled an additional 1.1 percent to leave poverty. No families left poverty due to child support alone.

Conclusions

Even with Texas' strong commitment to child support enforcement, child support was being collected for only 16 percent of sampled caretakers by the end of the study period. Processing child support cases is a difficult and lengthy process. Major impediments to successfully completing this process appear to be the absence of identifying information and current addresses for noncustodial parents. New provisions within PRWORA should help with these efforts.

In sharp contrast to results from studies in high-benefit states, the findings from this study indicate that child support strongly influences Texas AFDC exits and recidivism. However, the total amount of child support received by these families is so

low that it does little to raise them above the poverty level. The low amounts of child support occur primarily because of low noncustodial parent earnings. Attempts to increase child support collections should be coupled with strategies to increase the employability and earnings capacity of both AFDC caretakers and noncustodial parents.

This study has contributed to the existing literature by analyzing the influence of child support on welfare dynamics in a low-benefit state in the post-FSA era. Although some of the rules influencing the relationship between welfare receipt and child support have changed with the passage of PRWORA, research of this type is essential because substituting child support for public assistance is a public policy goal that has assumed even greater importance under the new law.

Further research is needed to account for the unanticipated gaps in the administrative data files available for this research so as to explore the influence of noncustodial parent attributes such as education level, current marital status, incarceration status, and out-of-state earnings on the award and collection of child support. Exploration of such factors, along with further analysis of the employment and earnings patterns of noncustodial parents, could greatly enhance our understanding of the degree to which these parents have the ability to pay regular child support.

I. Introduction

A. Purpose of the Study

The Family Support Act of 1988 (FSA) mandated a number of policy changes to increase the employability of caretakers receiving Aid to Families with Dependent Children (AFDC) and to improve the collection of child support from noncustodial parents. Some states, including Texas, enacted state legislation to strengthen their child support enforcement procedures prior to these federal mandates.¹

Despite the strong policy interest in this topic, few research studies have measured the role of child support in influencing welfare exits and recidivism. Researchers have been exploring patterns of welfare receipt and identifying factors that influence entry to and exit from the welfare rolls since the 1980s. The few studies that have included child support as a variable of analysis either used national surveys or were conducted in states with high AFDC-benefit levels (e.g., Wisconsin).

This research study by the Center for the Study of Human Resources at The University of Texas at Austin (CSHR) measures the influence that increased child support enforcement strategies have had on welfare dynamics in Texas, which has one of the lowest AFDC grant levels in the U.S., but relatively high rates of paternity establishment and child support collection. By linking administrative data files from a number of programs serving low-income families, this study statistically measures which factors influence the award and collection of child support for AFDC families and determines the influence of child support on AFDC exits and recidivism. The extent to which the combined influence of child support and earnings of custodial parents remove families from poverty is also explored.

B. Relevance to Policy Development

This study contributes to the existing literature on child support and welfare dynamics and to policy development in the following ways:

¹More recently, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) included nearly 50 changes to state child support programs.

1. It measures the influence of child support on welfare exits and recidivism in a low-benefit welfare state. Texas has made low investments in welfare, but placed strong emphasis on parental support. As a result, the collection of child support should have a more pronounced effect in Texas than in states with high AFDC benefits.
2. It examines the influence of child support collections in an environment with high rates of paternity establishment, more conformity in support orders, and strong enforcement techniques. Texas had begun to strengthen its child support enforcement procedures even before the enactment of the FSA. Similar studies in other states were conducted at a time when child support enforcement procedures enacted by the FSA were still in their infancy.
3. It includes variables from objective data sources for both custodial and noncustodial parents. A major limitation of some child support studies has been either a lack of data on the noncustodial parent or a reliance on data reported by the custodial parent only.
4. It analyzes data for both never-married and divorced custodial parents. Many child support studies have used data for divorced mothers only. However, research indicates that never-married mothers are less likely to have support orders, typically receive lower awards, and receive lower collections.

Even though the time period of this study preceded the passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), the goal of improving the amount and stability of child support payments to noncustodial parents has not changed. Thus, while each successive piece of legislation may change the means used to achieve this goal, it is important to understand the factors influencing child support collection from each generation of child support legislation so as to continue working toward the desired outcome.

C. Outline of the Report

This report is divided into six sections and one appendix. Section II summarizes relevant child support and welfare dynamics literature and describes the policy environment in which the Texas AFDC and child support programs operated during the period of this study. Section III lists the specific research questions addressed in this analysis and summarizes the research methods and data sources used to answer those questions. Detailed research results are presented in Section IV, and Section V offers conclusions drawn from research findings and identifies areas needing future research. The appendix, which is directed toward other researchers and statisticians, describes

sampling techniques, estimation methods, how data sources were combined to develop the research data set, and detailed statistical results.

II. Background

This section summarizes findings from national and state welfare dynamics and child support research and provides an overview of the welfare and child support policies in effect in Texas during the time period of this analysis.²

A. Welfare Dynamics and Child Support: A Research Summary

National Studies

Since the 1980s, researchers have used large, national panel data sets to examine patterns of welfare receipt over time. These studies have generally led to a broad consensus on the factors associated with welfare entries, exits, and recidivism:

- A woman is more likely to go on welfare if she has never been married, has many or young children, is black or Hispanic, and has little education.³ Most recipients go on welfare for the first time before the age of 25 and in the years immediately after the birth of their first child.⁴
- Demographic events such as divorce, separation, and out-of-wedlock births account for more welfare entries than work-related events.⁵ While demographic events are associated with up to 75 percent of welfare entries, only 15 percent of spell openings are the result of a decline in earnings.
- The majority of those who ever use welfare do so for a short period of time—usually less than two years.⁶
- The findings are mixed about what accounts for the majority of AFDC exits. Some recent studies indicate that the majority of exits—between one-half and two-thirds—occur through employment, with less than 15 percent occurring through marriage.⁷ Other studies have found that most exits occur through family changes such as marriage, absence of eligible children, or other family size changes or moves.⁸

² PRWORA mandated many changes to state child support enforcement programs. As a result, some of the child support and welfare policies relevant during the time period of this analysis are no longer in effect.

³ Cao, 1996; Klawitter, Plotnick, and Edwards, 1996.

⁴ Boisjoly, Harris, and Duncan, 1996; Cao, 1996; Klawitter, Plotnick, and Edwards, 1996; Pavetti, 1996.

⁵ Bane and Ellwood, 1994; Blank, 1989; Boisjoly, Harris, and Duncan, 1996; Ellwood, 1986.

⁶ Bane and Ellwood, 1983; Blank, 1989; Cao, 1996; Pavetti, 1993; Pavetti, 1996.

⁷ Blank, 1989; Fitzgerald, 1995; Gritz and McCurdy, 1991; Harris, 1993; Pavetti, 1993; Pavetti, 1996.

⁸ Bane and Ellwood, 1983; Bane and Ellwood, 1994; O'Neill, Wolf, Bassi, and Hannan, 1984.

- Of those who return to welfare, most do so quickly—within two years of exiting.⁹ Recidivists are more likely to be black, have never been married, have more and younger children, have less unearned income, have poor education, have little work experience or have a disability.¹⁰

Surprisingly, only a few welfare dynamics studies have examined the role of child support in influencing welfare exits and recidivism. Brandon (1995) used national data to study AFDC recidivism and found higher rates of recidivism among women who received irregular child support payments. Meyer (1993) found that in Wisconsin, a high-benefit AFDC state, child support has little or no impact on AFDC exits among custodial families, although it can reduce a family's chance of returning to AFDC once it has left the rolls.¹¹ Luttrell (1994, 1996) found that child support income actually increases the labor force participation of former Massachusetts AFDC recipients and that a family's combined child support income and increased earnings are enough to keep it off AFDC.

More common among the national literature are studies which have tried to identify the characteristics of noncustodial and custodial parents that are linked to the payment of child support. Research consistently indicates that one of the most important predictors of payment is the father's ability to pay, as reflected by his income, education level, and employment status.¹² Alcohol abuse, psychological problems, and problems with the law are other barriers to compliance.¹³ In addition, most studies find that never-married mothers are significantly less likely to receive support and are more likely to receive lower payments when they do.¹⁴

Texas Studies

Using state administrative data, CSHR researchers have examined factors associated with welfare receipt in Texas and generally found results that are consistent with national welfare dynamics literature:

⁹ Blank and Ruggles, 1994; Brandon, 1995; Cao, 1996; Meyer and Cancian, 1996; Pavetti, 1993.

¹⁰ Blank and Ruggles, 1994; Brandon, 1995; Cao, 1996; Ellwood, 1986.

¹¹ In 1996, the maximum AFDC grant for a family of three ranged from a low of \$120 in Mississippi to a high of \$703 in Suffolk County, New York. In Wisconsin, the grant was \$517. U.S. House of Representatives, 1996.

¹² Caputo, 1996; Dubey, 1995; Meyer and Bartfeld, 1994; Perloff and Buckner, 1996; Teachman, 1991.

¹³ Dion, Braver, Wolchik, and Sandler, 1997; Perloff and Buckner, 1996.

¹⁴ Caputo, 1996; Edin, 1995; Meyer and Bartfeld, 1997.

- Families that receive welfare in Texas are more likely to cycle on and off AFDC than to combine some work with welfare or rely on AFDC continuously. Forty percent of all families that leave AFDC return. Most of those who leave welfare do so for reasons other than employment.¹⁵
- Women least likely to return to welfare are older at the beginning of their first AFDC spell, have older children, or earn more after leaving AFDC. Black women are more likely than white or Hispanic women to return.¹⁶

Such prior studies conducted by CSHR did not include child support as a variable of analysis. However, one study which examined the payment of support by noncustodial fathers in six Texas counties found that, consistent with the national literature, payment of child support is positively associated with a father's steady employment and higher occupational status. The study also found that noncustodial parents whose children had been on welfare in the past were less likely to pay all their child support.¹⁷

B. Welfare and Child Support in Texas: An Overview of Programs and Policies

Welfare

In Texas, the AFDC program administered by the Texas Department of Human Services (DHS) provides cash assistance to families deprived of economic support due to the absence or disability of one or both parents.¹⁸ Although it has provided benefits for two-parent families through the Unemployed Parents (UP) option since October 1990, it is largely a single-parent welfare program. In most cases, a family on AFDC consists of a female caretaker and one or two children. About three-fourths of the recipients are children, approximately half of whom are under 6 years of age. Over three-fourths of the families are black or Hispanic. About 75 percent of the cases are located in four DHS regions: the San Antonio, Dallas-Fort Worth, Houston, and the Rio Grande Valley regions.

¹⁵ King et al., 1994; Schexnayder, King, and Olson, 1991; King and Schexnayder, 1988.

¹⁶ Schexnayder, King, and Olson, 1991; Schexnayder and Olson, 1995.

¹⁷ Folse, 1995.

¹⁸ This description and the figures cited are taken from several *DHS At a Glance* publications produced by DHS.

Texas has one of the lowest AFDC-benefit levels in the country. In 1992, the maximum monthly AFDC benefit for a family of three was \$184; by 1996, this grant increased to \$188. The average grant for single-parent families in 1996 was \$158 per family and \$59 per recipient. To be eligible for benefits, a family must have needy children and less than \$1,000 in assets, excluding a home and one car valued at less than \$1,500. Recipients are automatically eligible for Medicaid and usually eligible for food stamps and child care services.

In 1995, the Texas Legislature passed House Bill 1863, which mandated reforms of the Texas AFDC program and restructured the state's system for delivering federal and state employment and training programs, including the Job Opportunities and Basic Skills Training program (JOBS) for welfare recipients. HB 1863 consolidated 28 workforce-related programs under the new Texas Workforce Commission (TWC) and authorized the creation of local workforce development boards (LWDB) in single or multi-county local workforce development areas (LWDA) to locally operate most employment and training programs.

Child Support

Texas has placed strong emphasis on the collection of private child support over the past ten years. While most other states have located their child support enforcement program within the state welfare agency, Texas' program has been administered by the Child Support Division of the Office of the Attorney General (OAG) since 1985.¹⁹ Under federal law, the OAG is required to provide enforcement services to families that are applicants for and recipients of AFDC and to other non-welfare families at their request. Applicants for AFDC are automatically referred to the child support enforcement program by DHS. Recipients of AFDC are required to assign their child support rights to the state and cooperate with child support enforcement officials. Unless they are excused with "good cause," noncooperation results in the termination of the parent's AFDC benefits.²⁰

¹⁹ Unless specifically noted, facts in this section about the child support enforcement program were taken from Texas Office of the Attorney General, 1996 and 1997.

²⁰ For a more complete description of the national and Texas child support enforcement programs, see McCoy, 1998.

The OAG has primary responsibility for the five steps in the child support process: location of an absent parent, paternity establishment, establishment of a child support award, enforcement of a child support obligation, and collection and distribution of support. In locating an absent parent, the program relies on information furnished by the custodial parent and on data from federal databases and other state agencies. Paternity establishment has been a major focus of the program since 1989. In 1993, state legislation authorized the Volunteers in Paternity program, a program designed to obtain signed statements of paternity acknowledgment from both parents at the time of a child's birth. As mandated by guidelines in the Texas Family Code, child support orders are established as a fixed percentage of the noncustodial parent's net resources.²¹ AFDC cases must be reviewed at least once every three years; non-AFDC cases are reviewed upon the request of either parent.²² Orders may be modified in response to a material or substantial change in the circumstances of the child or person affected by the order.²³

The collection of support is enforced through several methods. Immediate wage withholding, introduced in Texas in 1986, prior to its provision in the Family Support Act, is used in both AFDC and non-AFDC cases. In 1995, state legislation authorized the OAG to pursue suspension of driver's, professional, occupational, and recreational licenses of parents whose payments are in arrears for more than 90 days. Other enforcement options include: the interception of IRS tax refunds; property seizure and sale; and block of unemployment benefits, workers compensation benefits, and state lottery winnings. The state may also incarcerate a noncustodial parent for failure to pay child support.²⁴

Families with no history of welfare involvement receive the full amount of support collected on their behalf. Families on AFDC receive the first \$50 of the current collection and the state retains the remainder up to the amount of the family's AFDC grant.²⁵ If the payment exceeds the amount of the AFDC grant plus the \$50 disregard, the excess funds up to the amount of the current order are sent to the family and the family is

²¹ U.S. Department of Health and Human Services, 1996.

²² The PRWORA eliminated the automatic 3-year review of orders in AFDC cases. States must now review the orders at least once every three years only if requested by either parent.

²³ U.S. Department of Health and Human Services, 1996.

²⁴ *ibid.*

²⁵ Part of the amount retained by the state is given to the federal government, based on its share of AFDC expenditures paid to the family. In 1996, the PRWORA changed the rules governing the distribution of child support in AFDC cases so that states now have the option of eliminating the \$50 disregard, and the federal government receives its share of the collection before the state and the family.

put in AFDC grant jeopardy. In this case, DHS determines whether the family will remain eligible for AFDC benefits.²⁶

Paternity establishments, established orders, and collections all have increased as a result of Texas' efforts to strengthen enforcement procedures. From 1988 to 1995, Texas moved from, 38th to 2nd among all states in paternities established, 26th to 4th in orders established, 16th to 7th in total collections, and 17th to 9th in average paying cases. In state fiscal year 1996, child support collections through the OAG totaled \$619 million.

As of August 1996, the OAG caseload was over 847,000; slightly less than half of these were AFDC cases.²⁷ However, approximately eighty percent of *new* cases opening each month are AFDC cases, nearly two-thirds of which require paternity establishment. In addition, AFDC cases typically have lower support orders and generally receive lower collections than non-AFDC cases.

²⁶ The family may retain eligibility for cash benefits if DHS determines that the existing level of current child support is not likely to be continuous.

²⁷ Given the dramatic drop in the welfare rolls in Texas since 1995, it is likely that non-AFDC cases will comprise an even larger share of the OAG caseload in future years.

III. Research Methods

A. Research Questions

This project investigated four primary research questions:

1. Which factors have the greatest influence on the award and collection of child support in Texas?
2. To what extent does child support influence AFDC exits in Texas?
3. To what extent does child support reduce AFDC recidivism in Texas?
4. What is the combined influence of child support and earnings of the custodial parent in removing families from poverty in Texas?

B. Data Sources and Sampling Plan

To answer these four questions, CSHR researchers selected a sample of 65,616 AFDC caretakers on the rolls in Texas as of September 1, 1992 and analyzed individual-level administrative data for these AFDC caretakers, their children, and the noncustodial parents of the children for a four-year period from September 1992 through August 1996. The longitudinal dataset used in the analysis was developed by linking AFDC demographic, spell, and benefits data from DHS; Job Opportunity and Basic Skills (JOBS) program participation data and Unemployment Insurance (UI) wage data from TWC; and child support award, collection, distribution, and demographic data from OAG. The data files provided by these agencies allowed researchers to analyze variables related to the demographics and JOBS participation of the AFDC caretaker, the employment and earnings of the caretaker and the noncustodial parent, and the attributes of each child support case associated with the caretaker and the noncustodial parent. A more complete description of the data sources and variables used for this study is included in Appendix A.

A stratified sampling plan was used so that each research question could be answered for the state as a whole and for each of the state's 28 local workforce development areas (LWDA). At least 2,000 caretakers from each LWDA were included in the sample. Since smaller workforce areas were oversampled, it was necessary to

statistically weight the observations when producing state-level results. A detailed description of the sampling plan is also contained in Appendix A.

C. Statistical Methods Applied

Two units of analysis were used—the AFDC case and the OAG case. The AFDC case, which consists of an AFDC caretaker and children, was the primary unit of analysis used to explore the demographics, JOBS participation, and employment and earnings of the caretaker, as well as patterns in the caretaker’s receipt of AFDC. The OAG case, which consists of one custodial parent, one noncustodial parent, and one or more of their children, was used to analyze events related to the establishment of a child support award and the collection and distribution of child support.²⁸ Since each AFDC caretaker can be associated with more than one noncustodial parent, it is possible to have one or more OAG cases for each AFDC case.

The analysis of most time-related variables was standardized to calendar quarters, instead of months, because UI wage data provided by TWC is available only by quarter.²⁹ The main exception to the quarterly periodicity standard was for collections of IRS intercept payments made by noncustodial parents. Because most of the payments of this kind were made in the second or third quarters of the year, any quarter-level analysis would be distorted by seasonal variation. For this reason, these payments were analyzed on an annual basis.

Some of the variables analyzed, such as race/ethnicity and gender, were constant over time. Other variables, such as the payment of child support, could vary every quarter. In addition, some variables increased over time in obvious ways. For example, children get one year older every year, and the lifetime number of months on AFDC increases by one month for every month the client spends on AFDC.

Two main statistical approaches were used in the analysis—descriptive statistics and statistical inference. Descriptive statistics were used to provide an understanding of the nature of the AFDC population in Texas, emphasizing the demographic and other AFDC- and child support-related variables thought to influence the award and collection

²⁸The AFDC caretaker and the custodial parent are usually the same person, and in general, these terms are used interchangeably throughout this document.

²⁹Standardization of the analysis to longer periodicity, such as semiannual or annual periods, was not used because it would have resulted in the loss of within-period variations in the data.

of child support and AFDC exits and recidivism. Using descriptive statistics, sums and averages of the variables were taken and tables and graphs were developed to show how the variables changed over time.

Statistical inference was used to measure the extent to which each of the AFDC- and child support-related attributes contributed to the probability of having a child support award, receiving child support collections, and exiting and returning to AFDC. The primary tool of statistical inference used was multiple regression. Details of the structure of these regressions are included in Appendix A.

D. Research Limitations

As is common with administrative data, differing procedures used in data processing by the various agencies, data entry errors, illegible archive tapes, and inaccurate information provided by clients caused difficulty in matching data records between agencies, missing values, and other kinds of gaps in the data. Every effort was made to ‘clean’ the data to achieve a combined file that contained accurate accounts of every client’s experience with AFDC and child support enforcement. The details of these data cleaning efforts are described in Appendix A.

Some gaps in coverage could not be overcome due to inherent limitations in the data source. For example, the coverage of UI wages is limited to covered employment in Texas. Out-of-state employment, as well as military, farm, non-legitimate, and self-employment could not be included in the analysis. In addition, UI wages could not be obtained for noncustodial parents whose Social Security numbers (SSNs) were invalid, inaccurate or missing from the file.

Some of the files received by CSHR researchers were periodic in their original form, such as the monthly records kept by DHS on each month’s caseload, or the quarterly wage records received from TWC. However, much of the OAG data was taken from a one-time snapshot of current case records in June 1997. OAG management information system procedures in effect during this time period routinely overwrote outdated information for some descriptive variables, such as the marital status of the custodial and noncustodial parent, and the address of the noncustodial parent. The absence of historical information describing changes in these items limited their usefulness in the construction of the time-varying database. Nevertheless, several of

these items were used for descriptive purposes. For example, the noncustodial address fields were used to construct descriptive statistics showing the number of noncustodial parents who lived out-of-state on the date the snapshot was taken, even though the date they moved out-of-state was unknown.

IV. Research Results

This section presents results obtained from the statistical analysis of the data. First, several demographic and case-related characteristics of AFDC caretakers in the sample and the noncustodial parents associated with those cases are presented to give the reader an understanding of the population being studied. Then, the factors which have the greatest influence on the award and collection of child support in Texas are explored, followed by an analysis of how the award and collection of child support influence AFDC exits and recidivism in Texas. Finally, the degree to which the combined influence of child support and caretakers' earnings enable Texas families to leave poverty is examined.

A. Characteristics of the Research Sample

Demographics of AFDC Caretakers

Table 1 displays selected characteristics of the sampled AFDC caretakers. The first column shows characteristics of the sample when it was taken in September 1992, while the second column provides statistics for only those members of the sample (35.9 percent of the original sample) who were still on the AFDC caseload during the last quarter of the research study (July 1996 to September 1996). All reported statistics are representative of the entire state.

A comparison of the statistics for the original sample to those still on the caseload at the end of the observation period offers insights to the characteristics related to welfare exits and dependency in Texas. First, with respect to race/ethnicity, blacks and Hispanics together comprised about 75 percent of the AFDC caseload at the time the sample was first drawn, with whites totalling less than 25 percent. Whites and individuals of "other" race/ethnicity were more likely to exit AFDC than blacks and Hispanics. Second, less than half of the caretakers in the sample at the beginning of the observation period reported that they had graduated from high school.³⁰ High school graduates were more

³⁰ This level of educational attainment is substantially below the 92.4 percent share who achieved this attainment among the state's over-25 population. *Texas Almanac 1996-1997*, 1995, p. 8. It should be noted that the education level for AFDC caretakers was computed from self-reported information provided to DHS when applying for benefits.

likely to exit the caseload than those with less educational attainment. Third, the majority of AFDC cases at the beginning of the period consisted of a caretaker and one or two children. At the end of the observation period, cases with more children living in the household were more likely to still be on AFDC.

More than half of the caseload had been on AFDC for 31 months or more at the time the sample was taken.³¹ Long-term recipients of AFDC were more likely to still be on the rolls at the end of the study period. Approximately 14 percent of caretakers were participating in the JOBS program, both at the beginning and end of the study. Given the relatively short time that AFDC caretakers participate in JOBS, these two figures generally represent different individual caretakers.

Child Support Cases of AFDC Caretakers

At the beginning of the study period, the OAG had received enough information to open a child support case for only 62.5 percent of the sampled AFDC caretakers; by September 1996, child support cases were opened for nearly 90 percent of the sample (Table 2). Because the OAG needed to file separate legal proceedings for each noncustodial parent, AFDC caretakers who had children by different fathers could have more than one child support case on file. On average, each of the sampled AFDC caretakers had 1.35 child support cases.

The table also documents the degree to which AFDC caretakers' children were born out of wedlock. At the beginning of the study, about one-third of the sampled caretakers had given birth to all of their children out of wedlock, one-third had some out of wedlock, and the remaining third had all of their children while married. By the end of the study, the share of caretakers with all children born out of wedlock had fallen, suggesting that some of these women had married prior to having additional children.

³¹ While this may seem a high percentage, this figure actually represents a “snapshot” of the caseload at a point in time, at which point most short-term stayers will be off the caseload and most long-term recipients on. If the figure would have reflected the entire population of people on AFDC during a year’s period or more, short-term cases would have comprised a much larger share of the statistic. This well-known enigma is often referred to as the “mover-stayer” phenomenon in the literature.

Table 1. Selected Characteristics of AFDC Caretakers

	Entire Sample Oct. - Dec. 1992	Sample on AFDC July - Sept. 1996
Race/Ethnicity		
Percent Black	36.4%	38.6%
Percent White	24.2	18.4
Percent Hispanic	38.2	41.9
Percent other	1.2	1.1
Educational Attainment		
Unknown	3.3%	1.7%
Grades 0-6	7.8	9.4
Grades 7-8	9.5	11.6
Grades 9-11	30.6	33.1
H.S. graduate or greater	48.9	44.1
Age		
<18	1.2%	0.0%
18-24	31.1	15.4
25-34	41.1	47.6
35-44	19.7	26.4
45 or more	6.9	10.6
Total Lifetime Months on AFDC		
<6 months	13.9%	8.3%
7-12 months	10.5	7.6
13-24 months	16.3	13.7
25-30 months	6.3	6.0
31-60 months	21.4	23.3
>60 months	31.6	41.1
Number of Children on AFDC Grant		
1	39.2%	30.5%
2	31.2	32.1
3	18.2	22.4
4 or more	11.4	14.9
Percent Participating in JOBS	13.9%	13.4%

Source: CSHR tabulation of DHS administrative data

Table 2. Child Support Statistics

	Entire Sample Oct. - Dec. 1992	Entire Sample July - Sept. 1996	Sample remaining on AFDC July - Sept. 1996
AFDC Caretakers with OAG Case	62.5%	89.8%	89.8%
Number of Opened OAG Cases per Custodial Parent	1.35	1.35	1.54
Marital Status of AFDC Caretaker at Children's Birth			
All children born while married	33.4%	33.3%	27.4%
Some children born out of wedlock	34.2	37.9	45.0
All children born out of wedlock	32.4	28.8	27.6

Source: CSHR tabulation of OAG administrative data

When the paternity of a child is unclear, the OAG is authorized to arrange for medical tests to determine paternity. Over the course of the study period, paternity tests were conducted to identify the noncustodial parents for four percent of the sampled caretakers. Paternity was established in 88 percent of the administered tests.

Employment and Earnings of AFDC Caretakers and Noncustodial Parents

Table 3 summarizes employment and earnings of AFDC caretakers in the sample and the noncustodial parents associated with those caretakers based on UI wage records provided by TWC. While UI wage records cover 98 percent of all employment in Texas, these records do not include farm employment, self employment, military employment, out-of-state employment, religious organizations and “underground” employment.³² Nevertheless, with the exception of military and out-of-state employment, most of the kinds of employment that could realistically be expected to raise a caretaker or noncustodial parent to self-sufficiency are covered by the records.

More than a quarter of the caretakers were employed (in UI-covered work) when the sample was taken. This fraction rose to almost a third of the caretakers for those still on AFDC at the end of the observation period. In addition, more than two-fifths of the

³²Out-of-state residence is a major barrier to the collection of child support. Of the noncustodial parents located in this study, 6.3 percent had mailing addresses outside of Texas at the end of the study period. Out-of-state status could not be tracked for the entire period of study because address fields were overwritten as new addresses were entered. Employment for out-of-state noncustodial parents could not be computed because employment data were only available for Texas.

full sample of caretakers were employed at the end of the period. However, the attainment of employment is usually not enough to induce self-sufficiency for caretakers since their earnings are so low—almost all were earning less than 155 percent of poverty (the Food Stamp eligibility threshold) throughout the period.

Table 3. Employment and Earnings Statistics

	Entire Sample Oct. - Dec. 1992	Entire Sample July - Sept. 1996	Sample on AFDC July - Sept. 1996
Employment Rates (within Texas)			
Custodial parents	26.7%	43.7%	29.4%
Noncustodial parents (includes only cases with NCP located)	44.9	45.1	42.1
Mean Quarterly Earnings (for persons employed)			
Custodial parents	\$1,298	\$2,185	\$1,171
Noncustodial parents	3,216	3,968	3,433
Median Quarterly Earnings (for persons employed)			
Custodial parents	\$959	\$1,866	\$814
Noncustodial parents	2,751	3,525	3,019
Earnings as a Share of Poverty (employed custodial parents only)			
<50% of poverty	73.3%	56.3%	70.6%
51% - 100% of poverty	17.1	19.5	21.9
100% - 155% of poverty	8.9	20.4	7.2
>155% of poverty	0.8	3.8	0.3

Source: CSHR tabulation of UI wage data from TWC. Poverty levels from HHS,

Of the noncustodial parents for whom SSNs were known (64 percent of all noncustodial parents in the OAG files), approximately 45 percent were employed in Texas at the beginning of the observation period. This rate fluctuated little during the four-year period. While an additional number of noncustodial parents were probably employed outside of Texas, this rate could not be determined to the inadequacy of the earnings and residency data used for this study.³³

³³ In most cases, when the SSN was missing for the NCP it was missing because no NCP had yet been identified, and paternity in the case had not yet been established.

Although earnings for noncustodial parents were somewhat higher than those for custodial parents, these median quarterly earnings by the end of the study period were only \$3,525, or approximately \$14,000 if annualized. Noncustodial parent earnings rose 28 percent over the four-year study period.

B. Award and Collection of Child Support

The first research question in this study seeks to identify the factors having the greatest influence on the award and collection of child support for Texas AFDC caretakers. To answer this question, first, the administrative actions needed to establish and collect child support and the status of each child support case are summarized. Then, descriptive statistics are presented describing the amounts of child support awarded and collected throughout the study period. Finally, results are presented from the regression analysis used to identify factors influencing the award and collection of child support.

Process Used to Obtain Child Support Award and Collect Child Support

To begin the process of establishing a child support order for AFDC caretakers, DHS forwards information about the AFDC case to the OAG. Once the case is in the OAG files, it can be opened for enforcement. Enforcement actions include the establishment of paternity, location of a noncustodial parent, establishment of a child support order, establishment of wage withholding, and the partial or full collection of support. Depending on the circumstances of a particular case, these actions may not happen in the usual order. For example, it is not unusual for the noncustodial parent's payments to be made and recorded in a case for which wage withholding has not been established. Furthermore, it is possible for a custodial parent to have more than one OAG case open at a time, resulting in the possibility that each of these cases may be in a different stage of processing.³⁴

Table 4 shows the various steps in the enforcement process leading to the collection of support, as defined by CSHR researchers. Table 5 displays where each OAG case was in the child support award and collection process at the beginning and end

³⁴ This may occur if the caretaker has children from more than one noncustodial parent, or if a female caretaker has identified more than one male as the possible father of a child.

of the four-year study period.³⁵ At the time the sample was taken, the OAG had not received any information from DHS for 39 percent of the AFDC cases. For some of these cases, the caretaker left AFDC before information could be transmitted to the OAG, or there was some other administrative impediment that prevented the case from being opened. For another 55 percent of the cases, the OAG was performing the steps necessary to establish a child support order. Only six percent of the AFDC caretakers in the study were receiving any payments from the noncustodial parent.

Table 4. Hierarchical Order Steps to Establish Child Support

1.	OAG Case Not Opened
2.	OAG Case Opened
3.	Noncustodial Parent Located
4.	Child Support Court Order Established
5.	Wage Withholding Initiated
6.	Cases with Partial Collections
7.	Payments Received in Full

Source: CSHR

Table 5. OAG Cases by Highest Case Status

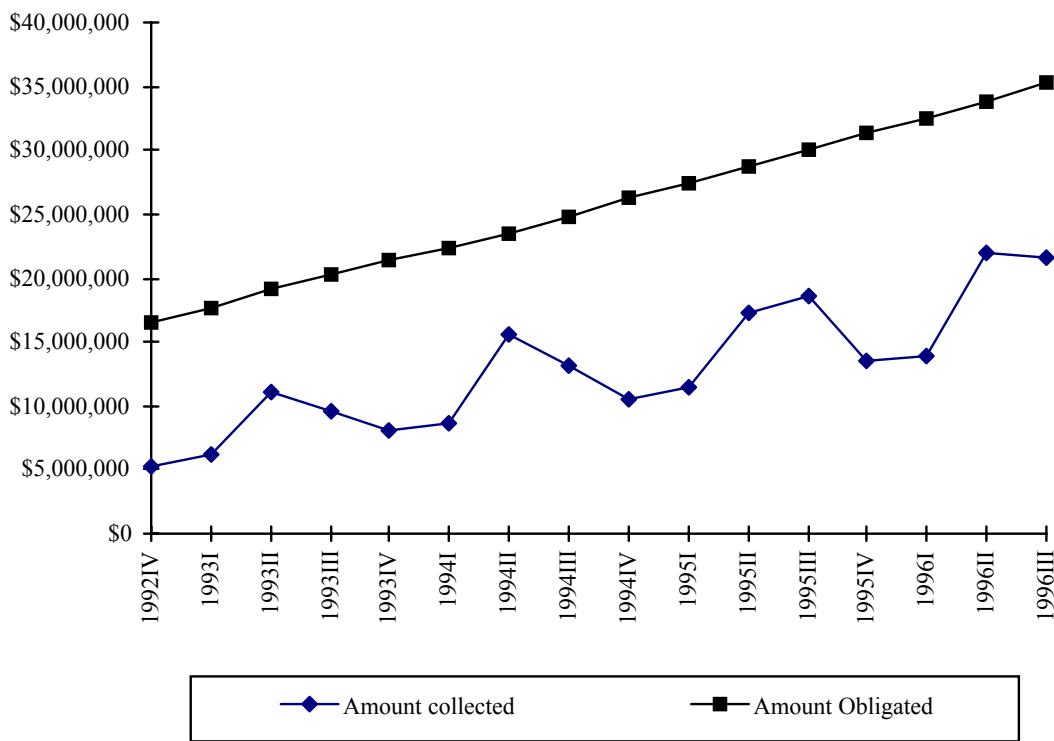
	Entire Sample Oct. - Dec. 1992	Entire Sample July - Sept. 1996	Sample on AFDC July - Sept. 1996
Payments Received in Full	2.9%	12.3%	8.8%
Partial Collection of Child Support	3.0	3.8	4.8
Wage Withholding Initiated	3.8	13.9	15.3
Child Support Order Established	7.5	4.8	4.8
NCP Located	27.5	27.7	29.1
OAG Case Opened	16.3	28.0	28.2
OAG Case Not Opened	38.9	9.5	8.9

Source: CSHR tabulation of OAG administrative data

³⁵ Each case is classified according to its highest status in the process. For example, if a case is opened, but nothing else has been done, it will be classified as an open case. If a case is opened, and the noncustodial parent is found and paying in full, the case will be classified as paying in full, even if wage withholding or any of the other earlier steps have not been completed.

By the end of four years, more than 90 percent of the sample cases had been acted upon by the OAG. Sixteen percent of the cases were receiving payments, and all but 9.5 percent had made progress toward that goal. Of the OAG cases in which the caretakers were still on AFDC at the end of the observation period, progress toward payment was noticeably less than for all cases in the study.

**Figure 1. Aggregate Child Support Collections
(for Entire Sample)**



Source: CSHR tabulation of OAG administrative data

Amount of Child Support Orders and Collections During the Study Period

Once a child support order is established, the next step in the child support enforcement process is the collection of support. However, as illustrated in Figure 1, there is a considerable gap between the amount of a child support order and the amount

that is actually collected. At the time the sample was taken, the amount of child support obligated for all sample members, weighted to represent statewide values, was approximately \$16.5 million per quarter. At that time, only about \$5.2 million was collected. By the last quarter of the observation period, total obligations had climbed to \$35.3 million per quarter and collections had increased to \$21.6 million per quarter.

The spikes in the collections line in Figure 1 are due to the collection of support through the intercept of noncustodial parents' federal income tax refunds. Because most of these IRS intercepts arrive in the second and third quarters of the year, it is more appropriate to compare annual values of total obligations to total collections, rather than quarterly values. Total obligations and collections for the first and last years of the observation period are summarized in Table 6.

**Table 6. Aggregate Obligations and Collections
(Annual Basis)**

	Year 1	Year 4
Collected	\$32,035,750	\$70,874,290
Obligated	73,544,077	132,853,580
Percent Paid	43.6%	53.3%

Source: CSHR tabulation of OAG administrative data

Results from Statistical Inference

CSHR researchers developed a series of regression equations to statistically analyze the factors which have the greatest influence on the award and collection of child support in Texas. Specifically, the equations examined:

- the probability that a caretaker with an OAG case had a child support award established;
- factors influencing the award amount;
- the probability that a collection was made in the case; and
- factors influencing the amount of the collection.

In interpreting results from these regressions, it should be noted that several of the desired demographic attributes of noncustodial parents that could influence award and

collection of child support (such as education level, marital status, or out-of-state residence throughout the four-year study period) could not be included in these regressions.³⁶ Omission of these variables could cause some of the remaining variables to carry a disproportionate share of influence. Complete regression results are included in Appendix Tables A-3 through A-9.

Probability of Award Establishment

The probability of an AFDC caretaker with an OAG case having an established child support award in place during any given quarter of the observation period was 47.7 percent. As shown in Table 7, the variables increasing the probability of a child support award being established were: more cumulative effort expended by the OAG in processing cases over time; more than one noncustodial parent per AFDC case; older age of the youngest child in an AFDC case; Black or Hispanic race/ethnicity of noncustodial parent; and higher earnings of the noncustodial parent. Factors decreasing the probability of an award being established include: more than one child on the AFDC grant; male AFDC caretaker; noncustodial parent younger than 25 or 45 and older; the AFDC caretaker's education being less than high school or unknown, and having children born out of wedlock.

Some of the variables that one might expect to have a strong effect on this measure, (e.g., the amount of the noncustodial parent's earnings)—had statistically significant but rather small effects. For example, every additional \$100 of earnings for those noncustodial parents whose wages could be measured increased the probability of having an award by only 0.056 percentage points, an increase of only 0.1 percent relative to their 47.6 percent probability.³⁷

³⁶ Some of these variables were not included in the available administrative data files, while others could not be used in the regressions because their values had been overwritten and were only available as of the date that the file was drawn (October 1997). See Appendix A for a more complete discussion of the structure of the variables available for the analysis.

³⁷ Because the language of mathematics is ambiguous when talking about the percentage change of a percentage, we will refer to the increase in the probability of award as a change of "0.056 percentage points." Alternatively, the increase in the probability of award could be called a "0.1 percent change" because .00056 divided by .477 equals .00117, or 0.117 percent. In order to avoid ambiguity, we will standardize the description of changes in percentage variables to the "percentage point" syntax.

Table 7. Factors Influencing the Establishment of a Child Support Order and Amount of the Order

Characteristics	Probability of Award Being Established	Amount of Obligation	
		Current	Arrears
Noncustodial Parent Characteristics			
Age less than 18	-	+	
Age 18 - 24	-	-	-
Age 35 - 44		-	+
Age 45 - 59	-	-	+
Age 60 and up	-	-	-
Black	+	-	-
Hispanic	+	-	-
Other non-White		-	-
Female	-	-	-
Amount of quarterly UI wages	+	+	
OAG Case Characteristics			
Cumulative effort expended by OAG	+	+	-
Multiple OAG cases	+	-	+
3 person family	-	+	+
4 person family	-	+	+
5 person family or more	-	+	+
Age of youngest child	+	-	+
Some children born out of wedlock	-	-	-
All children born out of wedlock	-	-	-
Custodial and noncustodial parents of different race/ethnicity		+	
AFDC Caretaker Characteristics			
Education unknown	-	-	
Education grade 7	-	-	-
Education grade 7-8	-	-	
Education grade 9-11	-	-	-

Notes: " + " indicates that coefficient was positive and statistically significant at .01 alpha level
 " - " indicates that coefficient was negative and statistically significant at .01 alpha level
 " " indicates that variable was not statistically significant

Source: Appendix Tables A-3 through A-5

Factors Influencing the Award Amount

Child support awards can include two components—an obligation to pay current support and an obligation to pay support that is past due. While all cases with awards include an obligation to pay current support, only cases with arrears would include obligations for past support. Regressions were developed to explore which factors influence the amount of each type of obligation.

Current Support

On average, the current obligation to pay child support was \$467 per quarter. This amount varied depending on the characteristics of the custodial and noncustodial parents and the number and status of children for whom support was due.

Obligations for AFDC caretakers who were racial/ethnic minorities tended to be smaller than those of whites. Obligations were also smaller if some or all the children affected by the award were born out of wedlock. Cases in which a custodial parent had two children had a higher obligation than those with one child by about \$109. However, when the custodial parent had three or more children on the case, the marginal increments for each additional child were somewhat smaller.

Obligations were lower than the average if the custodial parent had less education. Relative to noncustodial parents aged 25 to 34, older noncustodial parents and those aged 18 to 24 also had smaller obligations.

For each additional \$100 of the noncustodial parent's annual wages, the amount of the obligation increased by only \$1.76. This finding is rather surprising given that a child support order is based on a percentage of the noncustodial parent's income. One possible explanation is that not all noncustodial parents' earnings are covered by the UI wage data. Another reason the marginal contribution of NCP income to child support is so small may be related to the fact that out-of-state income and certain minor kinds of in-state income are excluded from the UI wage data that was available for this analysis.³⁸

³⁸ The lack of complete information on NCP earnings leads to the econometric problem known as "errors-in-the-variable." When this problem affects an independent variable, it biases the regression coefficient of the variable toward zero. Thus if these errors had not been present, the estimated marginal income contribution coefficient would probably have been much larger. As an informal test of this idea, a person-quarter tabulation was made that included only NCP's who were present in the UI wage records during any quarter, and who owed child support for the quarter being tabulated. For this subset of NCP's, 81 percent of them had actually paid child support, and the amount paid averaged approximately 8.9 percent of their wages.

Past Support

Of all the equations analyzed, the amount of the obligation for past support was the least predictable. The fit of the equation was markedly worse than other similarly-structured equations, and many more of the variables were statistically insignificant. The amount of the obligation was higher for families in which the youngest child was older or those with older noncustodial parents. These may have occurred because of the longer time period in which arrears would accumulate. Unlike the figures for current support obligations, having multiple child support cases also increased the amount of child support obligations in arrears. Except for these few differences, the effects of the independent variables on the obligation for past support were generally in the same direction as the effects on the current obligation, but the magnitudes were smaller and less likely to be statistically significant.

Probability of Collection and Factors Influencing the Amount Collected

To analyze the probability that a collection was made and the factors influencing the amount of the collection, the analysis was divided into two components—one for collections obtained through IRS intercepts and one for collections made through other enforcement methods. Regression equations for non-IRS payments were computed on a quarterly basis while equations for IRS intercepts were analyzed annually. Results are summarized in Table 8.

Collections Other Than IRS Intercepts

For collections made through methods other than IRS intercept, a collection occurred for 38.3 percent of the cases in which there was a child support award. The probability of collection was affected by many factors, the most important being the noncustodial parent's earnings. For every additional \$100 earned by the noncustodial parent in a quarter, the probability of collection increased by 0.81 percentage points. In addition, the probability of collection increased with the cumulative effort spent on the cases by the OAG, the age of the noncustodial parent, if the noncustodial parent was Hispanic, and if all children on the case were born out of wedlock. The probability of

collection was reduced if the noncustodial parent was Black, the caretaker had multiple child support cases or had more children, or the youngest child was older.

Table 8. Factors Influencing Collection of Child Support

Characteristics	Non-IRS Collections		IRS Collections	
	Probability of Collection	Amount	Probability of Collection	Amount
Noncustodial Parent Characteristics				
Ages less than 18	-	+	-	
Age 18 - 24	-	-	+	-
Age 35 - 44	+	+	-	-
Age 45 - 59	+	+	-	-
Age 60 and up	+		-	-
Black	-	-	+	+
Hispanic	+	-	+	+
Other non-White		-	+	+
Female	+	-		
Amount of quarterly UI wages	+	+	+	+
OAG Case Characteristics				
Cumulative effort expended by OAG	+	+	+	+
Multiple OAG cases	-	-	+	
3 person family	-	+	+	+
4 person family	-	+		+
5 person family or more	-	+		+
Age of youngest child	-	-		
Some children born out of wedlock		-	+	-
All children born out of wedlock	+	-	+	
CP/NCP different race/ethnicity		+	-	
AFDC Caretaker Characteristics				
Education unknown	-			
Education less than grade 7	+	-	+	+
Education grade 7-8	-	-	+	+
Education grade 9-11	-	-		+

Notes: “+” indicates that coefficient was positive and statistically significant at .01 alpha level
“-” indicates that coefficient was negative and statistically significant at .01 alpha level
“ ” indicates that variable was not statistically significant

Source: Appendix Tables A-6 through A-9

The average quarterly amount of child support collected (for quarters in which the noncustodial parent made payments) was \$472. The most important influence on the amount of the collection was the noncustodial parent's earnings. For every additional \$100 earned by the noncustodial parent in a quarter, the collection increased by \$3.52. The collection also increased with the age of the noncustodial parent (except for the anomalous group of noncustodial parents under age 18), with increased accumulation of OAG effort spent on processing cases, and for families with more than one child. Factors contributing to smaller collections were: female noncustodial parents or those from minority race/ethnic backgrounds, the older age of youngest child, a custodial parent with less than a high school education, and some or all children being born out of wedlock.

IRS Intercept Collections

An IRS intercept was made in approximately one out of five years in which a noncustodial parent had an obligation.³⁹ The fit of the IRS intercept equations was much poorer than the corresponding equation for other types of collections, suggesting that IRS intercepts are less predictable than regular payments. The most important influence on the probability of collection through IRS intercept was the positive effect of the noncustodial parent's earnings. For every \$100 earned per year by the noncustodial parent, the probability of collection through IRS intercept increased by 0.05 percentage points. Other influences contributing to the probability of an IRS intercept included: cumulative effort by the OAG to process cases, noncustodial parents less than 24 years old, multiple child support cases, minority status of the noncustodial parent, and having children born out of wedlock. None of these influences were as strong as they were in the analysis of other collections, and most had the opposite effect on IRS intercepts. This suggests that IRS intercepts are a substitute for regular payments.

The average annual amount collected from IRS intercepts was \$936 per case. The amount collected via IRS intercepts was less predictable than it was for other collection methods. The most important influence on the amount collected was the earnings of the noncustodial parent. For every additional \$100 earned by the noncustodial parent in a year, the amount of the IRS intercept increased by \$0.46. Another important positive

³⁹ Since IRS intercepts generally occur in the second and third quarters of the calendar year, the analysis of IRS intercept collections was made using annualized data instead of quarterly data.

influence on the amount of IRS intercept collected was the number of children on the OAG case. Relative to a case with a custodial parent and one child, each additional child increased the collection by approximately \$100. Minority ethnicity of the noncustodial parent, noncustodial parents between the ages of 25 and 34, and cumulative OAG effort to process the child support case tended to increase the amount collected, but these influences were less predictable than similar influences on the amount collected through other methods. Most of the other influences were insignificant or ambiguous.

C. AFDC Exits

The second research question explores the extent to which the award and collection of child support influence AFDC exits in Texas. First, descriptive statistics are presented displaying the amount of child support which goes to the family, as well as the overall rate of exits from AFDC throughout the period of study. Then, regression results identify the relative influence of child support and other factors on AFDC exits.

Descriptive Statistics

In order to answer this question, it was necessary to examine how much of the collected child support was distributed to the family, as collections made on behalf of AFDC families are in part retained by the state as recovered AFDC expenditures. Overall, during the four-year observation period, noncustodial parents paid approximately \$206.4 million in child support, of which \$109.9 million was sent to the custodial parents and \$96.5 million (47 percent) was retained by the state as recovered AFDC expenditures.⁴⁰

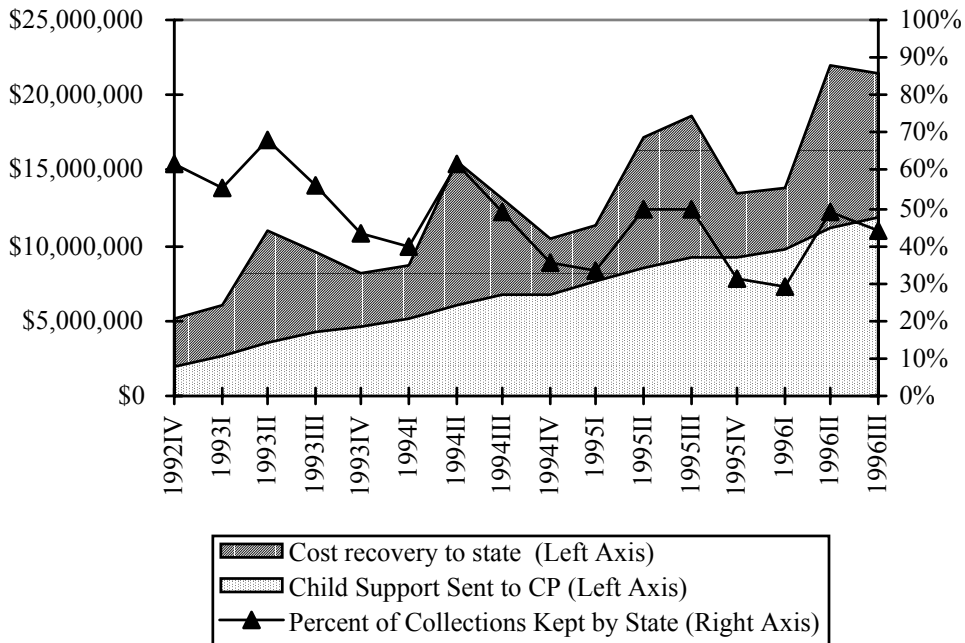
Figure 2 shows the distribution of collections on a quarterly basis. Two things are interesting to note. First, the percentage of collections kept by the state spikes during quarters when IRS intercepts are collected. This occurs because noncustodial parents whose refund checks are intercepted often make no other periodic payments. Because they have large arrears, less of the intercepted funds are passed through to the custodial parent. Second, over time, the state tends to retain less of the collections because many of the individuals for whom child support is being collected have left AFDC. Once a

⁴⁰ Since 1990, recovered AFDC expenditures have been retained as earned revenue by the OAG to help finance its program operations.

family leaves the caseload, all collections up to the amount of the current obligation are given to the family. If the collection exceeds the current support order, all or some of the remaining funds can be retained by the state if assigned arrears exist.

An AFDC exit, for the purpose of this statistical analysis, is deemed to have taken place at the end of a given quarter if the client was present on the AFDC rolls in any month of that quarter, and was not present on the rolls in any month of the following quarter. These exits may occur for several reasons, including a failure to follow rules, a move out of state, a change in income or family status, or the receipt of child support.

Figure 2. Distribution of Child Support Collections



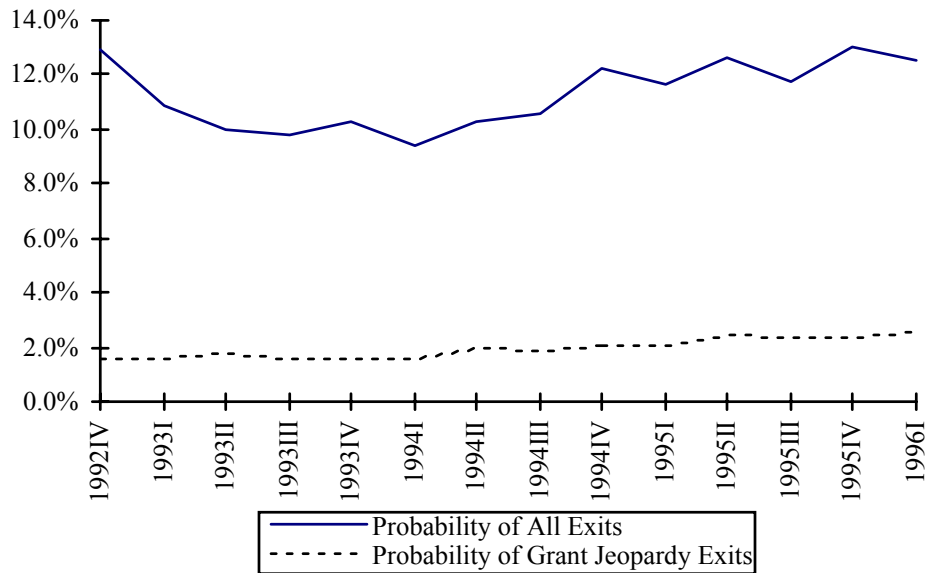
Source: CSHR tabulation of administrative data from DHS and OAG

A caretaker may be placed into ‘grant jeopardy’ status when the family’s monthly child support collection exceeds the amount of the AFDC grant plus the \$50 child support disregard. Since child support payments are often irregular, a family may find itself in grant jeopardy status one month and not the next. Often, an IRS intercept will put a family temporarily into grant jeopardy. Since the child support data did not include a variable with which to differentiate grant jeopardy exits from other types of exits,

CSHR researchers defined a ‘grant jeopardy exit’ as any AFDC exit occurring during a quarter in which the client experienced one or more months of grant jeopardy.

Figure 3 describes the quarterly probability of exit from AFDC and the probability of grant jeopardy exits from AFDC during the observation period. The figure shows that between 10 and 15 percent of the AFDC caseload will exit in any given quarter.⁴¹ The average probability of exit during any given quarter is 11.7 percent. Grant jeopardy exits averaged about 16.7 percent of all exits during the entire observation period.

Figure 3. Quarterly Probability of Exit from AFDC



Source: CSHR tabulation of administrative data from DHS and OAG

Factors Influencing AFDC Exits

A regression equation was developed to identify the factors influencing AFDC exits of any type. While many demographic variables describing the sampled AFDC caretakers were available for this analysis, it should be noted that it was not possible to determine from the data the extent to which a caretaker may have left the rolls due to marriage or a move out of state. Omission of these variables could cause some of the

⁴¹ The generally upward trend of exits from the sample over the later part of the observation period can be attributed to the fact that since 1994, welfare caseloads have been dropping throughout most of the U.S.

other variables in the analysis to carry a disproportionate share of influence. Results are summarized in Table 9 and complete results are presented in Table A-10 of Appendix A.

Table 9. Factors Influencing AFDC Exits and Recidivism

Characteristics	AFDC Exits	Recidivism
AFDC Caretaker/Case Characteristics		
Age less than 18	+	+
Age 18 - 24	+	+
Age 45- 59	-	-
Age 60 and up	+	-
Black	-	+
Hispanic	-	+
Other non-White	-	-
Male		-
Education unknown		+
Education less than grade 7	-	-
Education grade 7-8	-	+
Education grade 9-11	-	+
Age of youngest child	+	-
Youngest child less than 1 year old	-	-
On AFDC for more than 60 months	-	+
Currently enrolled in JOBS activity	-	n.a.
Amount of quarterly UI wages	+	-
Amount of children's wages	+	-
OAG Case Characteristics		
Multiple OAG cases	-	+
3 person family	-	+
4 person family	-	+
5 person family or more		+
Some children born out of wedlock		-
All children born out of wedlock	-	+
Total non-IRS child support received by custodial parent	+	-
Total IRS child support received by custodial parent		
Economic/Geographic Factors		
Rural location	-	
Urban location	-	-
Rate of population growth		
Unemployment rate	-	+

Notes: “+” indicates that coefficient was positive and statistically significant at .01 alpha level
“-” indicates that coefficient was negative and statistically significant at .01 alpha level
“ ” indicates that variable was not statistically significant

“n.a.” means variable was not included in regression.
Source: Appendix Tables A-10 through A-11

Not surprisingly, wages earned by the caretaker contributed strongly to the probability that the caretaker would exit AFDC. Specifically, for every additional \$100 per quarter earned by the caretaker, the probability of exit increased by about 0.84 percentage points. Since the average probability of exit is 11.7 percent, the increase of income by \$100 would increase the probability of exit to 12.5 percent. Over the course of a year, if every caretaker experienced such an increase in income, the AFDC caseload would decrease by an additional 2.3 percent, given that other variables remain constant.

Child support received by the custodial parent had a stronger influence on exits than the wages of the custodial parent. Specifically, a \$100 per quarter increase in regular child support collections induced a 2.5 percentage point increase in the probability of exit, raising the quarterly probability of exit from 11.7 percent to 14.2 percent. Since the comparable effect of \$100 of the custodial parent's own wages on exits was only 0.84, the receipt of child support had approximately three times as much power as an equal amount of caretaker wages in inducing exits from AFDC. This unexpected result may be partially explained by a subtle difference between the earnings and child support data. The earnings data measures the before-tax earnings of the custodial parent while the data on the amount of child support measures the amount of money actually received by the custodial parent. Also, the rules governing AFDC exits due to earnings enable certain expenses to be deducted prior to counting a custodial parent's earnings against the AFDC grant.⁴² Since the regression variable in the exits equation is gross earnings, whereas the actual influence on exits would be net earnings after offsets, the coefficient of the earnings variable will be biased downwards. This bias may be a partial explanation for the unexpected result that a given amount of child support money has more exit-inducing power than a like amount of the custodial parent's earnings.

The analysis also examined how other economic and demographic factors influence the probability of AFDC exit. The findings indicate that, other things being equal, individuals with a long history of past AFDC dependence, minority caretakers, caretakers with many children, multiple OAG cases, or all children born out of wedlock

⁴² Earnings disregards of \$90 per month for work-related expenses and up to \$200 for child care are allowed before the AFDC grant is reduced. In addition, \$30 plus one-third of the remainder are allowed as earnings for the first four months after employment so as to encourage AFDC recipients to leave AFDC for employment.

are less likely to leave the AFDC rolls. Caretakers with high school or higher educational attainment are more likely to exit than those with lesser educational attainment, caretakers with young children are less likely to exit than caretakers whose children are older, and caretakers who are participating in JOBS activities are less likely to exit while they are in these activities.

D. AFDC Recidivism

The third research question explores the extent to which the award and collection of child support reduces AFDC recidivism in Texas. For this analysis, recidivism is defined as occurring if the caretaker returned to the AFDC rolls within a year of exiting. By this definition, many of the caretakers in the sample exited and re-entered AFDC several times during the observation period. Approximately 34.9 percent of all exits were followed by recidivism within a year.

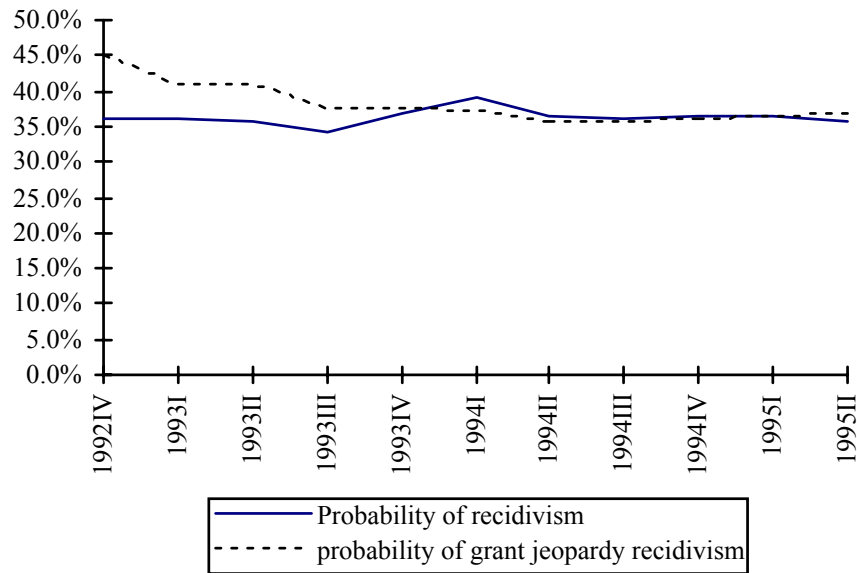
Figure 4 shows the one-year recidivism rate for caretakers in the sample who exited the caseload at some point during the four-year period. The figure displays the rate both for all exits and grant jeopardy exits. During the first few quarters of the observation period, for reasons which are not clear, the rate of recidivism is somewhat higher for grant jeopardy exits than it is for all exits.⁴³ By the end of the observation period, the recidivism rates for grant jeopardy exits are about the same as the rates for all exits. Together, these findings suggest that while the collection of child support may induce grant jeopardy exits, it does not seem to induce long-term self-sufficiency.

For the purposes of statistical inference, recidivism is defined as occurring if the caretaker exited from AFDC in one quarter, and returned to the rolls in any of the following three quarters. While the descriptive analysis showed that approximately 34.9 percent of all exits are followed by recidivism within a year, the statistical procedure used in the multivariate analysis estimated the probability that recidivism occurs in a single quarter.⁴⁴ Results are summarized in Table 9, with complete results included in Appendix Table A-11.

⁴³ In order to analyze recidivism rates, the observation period had to end in the second quarter of 1995.

⁴⁴ The Boskin-Nold procedure was used to analyze recidivism using person-quarter observations of the off-AFDC caseload. An alternative approach would be to analyze the one year rate of recidivism using data as of the time of exit. The Boskin-Nold approach has the advantage that data for the off-AFDC time is used, whereas the alternative approach ignores this extra information.

Figure 4. One Year Recidivism Rate for Exits and Grant Jeopardy Exits



Source: CSHR tabulation of administrative data from DHS and OAG

Receipt of child support reduces a family’s probability of returning to AFDC. For every \$100 of child support received per quarter, the probability of recidivism was reduced by 1.0 percentage points. Receipt of child support through IRS intercept, however, did not have a statistically significant influence on the probability of recidivism. As with exits, the receipt of child support had a larger effect on recidivism than the equivalent dollar amount of the caretaker’s own earnings. For every \$100 of quarterly earnings, the custodial parent’s probability of recidivism was reduced by only 0.31 percentage points.

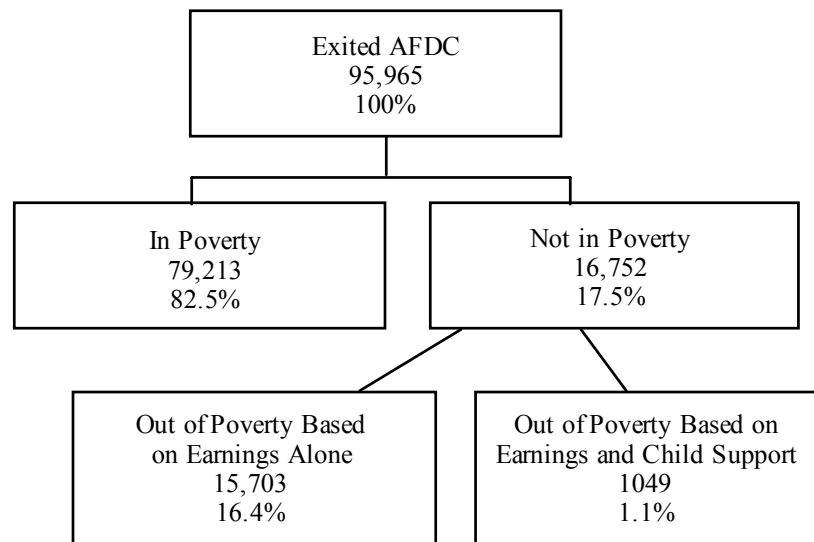
Most of the other demographic and economic variables that reduced exits also increased the probability of recidivism. Younger caretakers, persons of Black or Hispanic race/ethnicity, those with younger children, persons who had received AFDC for five or more years, caretakers with larger families, or those with all children born out of wedlock were all more likely to return to AFDC. Having multiple child support cases was associated with a 5.9 percentage point increase in the probability of recidivism.

E. Exits from Poverty

The final research question examined in this study explored the extent to which the combined influence of child support and the earnings of the AFDC caretaker enables an AFDC family to escape poverty. To answer this question, CSHR researchers determined whether the amount of child support received by each AFDC caretaker's family, combined with the caretaker's own earnings, was sufficient to raise the family out of poverty (given the caretaker's family size).

The results of this comparison are shown in Figure 5. By the end of the four-year study period, 8.5 percent of the original sample and 17.5 percent of families no longer on AFDC had left poverty through a combination of caretaker earnings and child support received.⁴⁵ Of the families no longer on AFDC, 16.4 percent left poverty through custodial parent earnings alone, while the addition of child support enabled an additional 1.1 percent to leave poverty. No families left poverty due to child support alone.

Figure 5. Exits from Poverty



Source: Tabulation of administrative data from DHS, OAG, and TWC. Poverty levels from HHS.

⁴⁵ While other AFDC caretakers may have left poverty through marriage, it was not possible to calculate that statistic from the data available for this analysis.

Thus, although each dollar of child support has a stronger impact than custodial parent earnings in removing families from AFDC and keeping them from returning to the rolls, the total amount of child support received by these families is so low that it does little to raise them above the poverty level. This suggests that increasing efforts to collect child support should be only one of a number of strategies used to enable AFDC families to leave poverty.

V. Conclusions and Future Research Agenda

Even with Texas' strong commitment to child support enforcement, child support was collected for only 16 percent of sampled caretakers by the end of the study period. Processing child support cases is a difficult and lengthy process. Major impediments to successfully completing this process appear to be the absence of identifying information and current addresses for noncustodial parents. The development of the National Case Registry and National Directory of New Hires required under PRWORA should improve collections from those noncustodial parents with the ability to pay.

The findings from this study indicate that child support strongly influences Texas AFDC exits and recidivism. However, while each dollar of child support received by an AFDC family has a three times stronger impact than an equal amount of custodial parent earnings in removing families from AFDC and keeping them from returning to the rolls, the total amount of child support received by these families is so low that it does little to raise them above the poverty level. The low amounts of child support occur primarily because noncustodial parent earnings, while above the poverty level, average less than \$14,000 per year. For more AFDC families to leave poverty, attempts to increase child support collections should be coupled with strategies to increase the earnings capacity of both AFDC caretakers and noncustodial parents.

As with many exploratory research studies, this analysis has raised as many new research questions as it answers. While this research initiative satisfactorily demonstrated the strong influence of child support collections on AFDC exits and recidivism, the analysis of the factors contributing to the award and collection of child support was limited due to unanticipated gaps in the administrative data files available for this research. Even the limited data, however, make it clear that employment rates of these Texas noncustodial parents are far lower than the norm. Further research is needed to explore how noncustodial parent attributes such as education level, current marital status, incarceration status, and out-of-state earnings could be included in the analysis. Exploration of such factors, along with further analysis of the employment and earnings patterns of noncustodial parents, could greatly enhance our understanding of the degree to which these parents have the ability to pay regular child support.

This study has contributed to the existing literature by analyzing the influence of child support on welfare dynamics in a low-benefit state in the post-FSA era, thus providing an opportunity to compare these findings with those from both high-benefit states and other low-benefit states during a similar time period. Since the time period of the study, the policy arena has changed once again with the passage of PRWORA, producing major changes in the child support program and eliminating AFDC in favor of TANF. At some future date, this study could provide an excellent baseline from which to examine the effects of the new law on the award and collection of child support for welfare families

Finally, while some rules governing child support and welfare receipt have changed in the post-PRWORA environment, reliance upon child support as a means of financial support for very poor families has assumed even greater importance than it had before the passage of the current law. For these new policies to be effective, knowing which factors contribute to or inhibit the collection of stable child support for families on public assistance is essential.

Bibliography

- Bane, M. and Ellwood, D. *Welfare Realities: From Rhetoric to Reform*. Cambridge, MA: Harvard University Press, 1994.
- Bane, M. and Ellwood, D. *The Dynamics of Dependence: The Routes to Self-Sufficiency*. Cambridge, MA: Urban Systems Research and Engineering, 1983.
- Blank, R. "Analyzing the Length of Welfare Spells." *Journal of Public Economics*, v39, 1989, 245-273.
- Blank, R. and Ruggles, P. "Short Term Recidivism Among Public Assistance Recipients." *American Economic Review*, v84, 1994, 49-53.
- Boisjoly, J., Harris, K., and Duncan, G. "Initial Welfare Spells: Trends, Events, and Duration, With Implications for Welfare Reform." Presented at the Eighteenth Annual Research Conference of the Association for Public Policy Analysis and Management, Chicago, October 1996.
- Boskin, M. and Nold, F.C. "A Markov Model of Turnover in Aid to Families With Dependent Children." *Journal of Human Resources*, 1975.
- Brandon, P. "Vulnerability to Future Dependence among Former AFDC Mothers." Institute for Research on Poverty, Discussion Paper 1055-95, January 1995.
- Cao, J. "Welfare Reciprocity and Welfare Recidivism: An Analysis of the NLSY Data." Institute for Research on Poverty, Discussion Paper 1081-96, March 1996.
- Caputo, R. "The Effects of Race and Marital Status on Child Support and Work Effort." *Journal of Sociology and Social Welfare*, v23, n3, September 1996, 51-68.
- Dion, M. R., Braver, S., Wolchik, S., and Sandler, I. "Alcohol Abuse and Psychopathic Deviance in Noncustodial Parents as Predictors of Child-Support Payment and Visitation." *American Journal of Orthopsychiatry*, v67, n1, January 1997, 70-78.
- Dubey, S. "A Study of Reasons for Non-Payment of Child Support by Non-Custodial Parents." *Journal of Sociology and Social Welfare*, v22, n4, 1995, 115-131.
- Edin, K. "Single Mothers and Child Support: The Possibilities and Limits of Child Support Policy." *Children and Youth Services Review*, v17, n1/2, 1995, 203-230.

- Ellwood, D. "Targeting 'Would-Be' Long Term Recipients of AFDC." Report prepared for the U.S. Department of Health and Human Services. Princeton, NJ: Mathematica Policy Research, Inc., 1986.
- Fitzgerald, J. "Local Labor Markets and Local Area Effects on Welfare Duration." *Journal of Policy Analysis and Management*, v14, 1995, 43-67.
- Folse, K. "Factors Affecting Compliance with Orders for Support." In *SB84 Report to the 74th Legislature*. Austin: Texas Office of the Attorney General, March 1995.
- Gritz, R. and McCurdy, T. "Patterns of Welfare Utilization and Multiple Program Participation Among Young Women." Stanford University, 1991.
- Harris, K. "Work and Welfare Among Single Mothers in Poverty." *American Journal of Sociology*, v99, 1993, 317-352.
- King, C. et al. *Texas JOBS Evaluation: Final Report*. Austin: Center for the Study of Human Resources, The University of Texas at Austin, 1994.
- King, C. and Schexnayder, D. *Welfare Dynamics in Texas: An Exploratory Analysis of AFDC Turnover and Program Participation*. Austin: Center for the Study of Human Resources and Bureau of Business Research, University of Texas at Austin, 1988.
- Klawitter, M., Plotnick, R., and Edwards, M. "Determinants of Welfare Entry and Exit by Young Women." Institute for Research on Poverty, Discussion Paper 1099-96, July 1996.
- Luttrell, C. "Child Support and the Transition from Welfare to Work: Massachusetts Evidence." Massachusetts Department of Revenue, Child Support Enforcement Division. Presented at the Eighteenth Annual Research Conference of the Association for Public Policy Analysis and Management, November 2, 1996.
- _____. "Simulating Cost Avoidance for Massachusetts Using Results from a Labor Supply Model." Massachusetts Department of Revenue, Bureau of Analysis Estimation and Research, June 1994.
- _____. "Child Support Collections and Labor Supply of Former Welfare Recipients." Massachusetts Department of Revenue, Bureau of Analysis Estimation and Research. Presented at the Midwestern Economics Association Meeting, March 1994.
- Madalla, G.S., *Limited and Qualitative Variables in Econometrics*, Econometric Society Monograph Number 3, Cambridge University Press, 1983, p23.
- McCoy, J. "Is Child Support Enforcement an Effective Strategy for Helping Poor, Single-Parent Families?" M.P.A. Professional Report, LBJ School of Public Affairs, The University of Texas at Austin, May 1998.

- Meyer, D. and Bartfeld, J. "Patterns of Child Support Compliance in Wisconsin." Institute for Research on Poverty, Discussion Paper 1130-97, April 1997.
- _____. "Are There Really Deadbeat Dads? The Relationship Between the Ability to Pay, Enforcement, and Compliance in Non-Marital Child Support Cases." *Social Service Review*, v68, n2, June 1994, 219-235.
- Meyer, D. "Child Support and Welfare Dynamics: Evidence from Wisconsin." *Demography*, v30, n1, February 1993, 45-62.
- Meyer, D. and Cancian, M. "Life After Welfare: The Economic Well-Being of Women and Children Following an Exit from AFDC." Institute for Research on Poverty, Discussion Paper 1101-96, August 1996.
- O'Neill, J., Wolf, D., Bassi, L. and Hannan, M. "An Analysis of Time on Welfare." Washington, D.C.: The Urban Institute, 1984.
- Pavetti, L. "Time on Welfare and Welfare Dependency." Statement Before the House of Representatives Committee on Ways and Means, Subcommittee on Human Resources, 104th Congress, May 23, 1996.
- _____. "The Dynamics of Welfare and Work: Exploring the Process By Which Young Women Work Their Way Off Welfare." Cambridge, MA: Harvard University, Kennedy School of Government, 1993.
- Perloff, J. and Buckner, J. "Fathers of Children on Welfare: Their Impact on Child Well-Being." *American Journal of Orthopsychiatry*, v66, n4, October 1996, 557-571.
- Schexnayder, D., King, C., and Olson, J. *Baseline Analysis of the Factors Influencing AFDC Duration and Labor Market Outcomes*. Austin: Center for the Study of Human Resources, University of Texas at Austin, 1991.
- Schexnayder, D. and Olson, J. *Texas JOBS Program Evaluation Second Year Impacts*. Austin: Center for the Study of Human Resources, University of Texas at Austin, 1995.
- Teachman, J. "Who Pays? Receipt of Child Support in the United States." *Journal of Marriage and the Family*, v53, n3, August 1991, 759-772.
- Texas Almanac 1996-97*. Dallas: *The Dallas Morning News*, 1995.
- Texas Department of Human Services. *DHS At a Glance*. Austin: 1992, 1994, 1996.
- Texas Office of the Attorney General. "Child Support Resource Packet." Austin: October 1996.

Texas Office of the Attorney General. "Child Support Program Performance: Fiscal Year 1995 Annual Report" [Online, April 11, 1997]. Available at <http://www.oag.state.tx.us/WEBSITE/CHILDSUP/perform.htm#Welfare>.

U.S. Department of Health and Human Services, Office of Child Support Enforcement. "Texas Child Support At-a-Glance." Washington, D.C.: November 1996.

Appendix A: Technical Appendix

Overview

To complete the analysis, Texas AFDC program participation data from DHS, JOBS and UI wage data from TWC, and child support data from OAG were linked to create a longitudinal dataset covering the four-year period from September 1992 through August 1996. To accomplish this linking of data, a sample of caretakers receiving AFDC in September 1992 was selected (see Sampling Plan below) and then linked with the JOBS database to collect JOBS participation data for members of the sample. The sample was also matched against OAG child support files to retrieve various identifying and child support payment information on any noncustodial parents and children associated with members of the sample. This entire list of AFDC caretakers, noncustodial parents, and their children was then matched against the UI wage database to gather information on the wage histories of all three groups. These data were combined, as described below, to create two longitudinal datasets appropriate for different levels of analysis. The AFDC case-level dataset, containing one record per AFDC case per quarter, tracks the histories of every originally sampled AFDC client and their families. The OAG case-level dataset tracks individual child support cases.⁴⁶

The remaining sections of this appendix describe the sampling plan and the data processing details for each data source.

Sampling Plan

The sampling plan was designed to satisfy two criteria. First, a sample of at least 2,000 clients per local workforce development area (LWDA) was selected to ensure that statistical inferences could be made at the sub-state level.⁴⁷ Second, to keep the size of the longitudinal datasets manageable, the overall statewide sample was limited to approximately 70,000 clients.

⁴⁶ There can be more than one OAG case per AFDC caretaker if the caretaker has children from more than one noncustodial parent, or if a female caretaker has identified more than one male as the possible father of a child.

⁴⁷ The local workforce area analysis is a requirement of a contract between CSHR and TWC.

To implement this plan, data were gathered from AFDC spells (see AFDC Spell Data description below) to determine the number of eligible caseheads who were on active AFDC cases in each of the 28 LWDAs as of September 1, 1992. Eligible caseheads were defined as those who were on either AFDC-Basic or AFDC-Unemployed Parent (AFDC-UP) assistance programs. On AFDC-UP cases, only the primary caretakers were sampled. The four LWDAs with populations smaller than the 2,000-client target size were sampled at a rate of 100 percent (see sampling fractions in Table A-1). The sampling fractions for the 24 remaining LWDAs were computed as follows. First, 2,000 slots were allocated to each. This yielded a total sample of approximately 54,000. Next, the remaining slots were allocated to the LWDAs in proportion to their share of the unsampled clients in the state, to yield a final sample of approximately 70,000 clients.

Because of this over-sampling of clients in the smaller LWDAs, it was necessary in various statistical analyses to apply a weighting factor in order to permit inferences about the statewide client population. These weighting factors were computed as the inverse of the sampling fractions of the respective LWDAs, and are listed in the final column of Table A-1.

Data Sources and Processing

AFDC Data

AFDC program data were compiled from two distinct sources, with each source having different strengths and weaknesses. The annually-produced AFDC caretaker *spell data* contain the most accurate records of beginning and end dates of AFDC spells for every casehead. However, these data do not contain information on monthly benefit amounts, nor on which children were associated with which cases in any given month. Thus, the spell data were taken as the authority for when individuals were on or off of AFDC, but these were supplemented by information from monthly *snapshot*, or ‘strip-file’ data, to gather other important information not contained in the spell data.

Table A-1. Sample Weights

LWDA no.	LWDA name	Eligible Population	Target Sample	Sampling Fraction	Weighting Factor
1	Panhandle	3333	2138	64.15%	1.56
2	South Plains	4557	2265	49.70%	2.01
3	North Texas	1749	1749	100.00%	1.00
4	North Central	6706	2489	37.12%	2.69
5	Fort Worth/Tarrant Co.	10234	2855	27.90%	3.58
6	Dallas/Dallas Co.	23248	4207	18.10%	5.53
7	North East Texas	2882	2091	72.55%	1.38
8	East Texas	7550	2576	34.12%	2.93
9	West Central Texas	2659	2068	77.77%	1.29
10	Upper Rio Grande	9205	2748	29.85%	3.35
11	Permian Basin	4330	2242	51.78%	1.93
12	Concho Valley	1214	1214	100.00%	1.00
13	Heart of Texas	3700	2176	58.81%	1.70
14	Austin/Travis Co.	5476	2361	43.12%	2.32
15	Rural Capital	2193	2020	92.11%	1.09
16	Brazos Valley	2153	2015	93.59%	1.07
17	Deep East Texas	4015	2209	55.02%	1.82
18	South East Texas	4394	2248	51.16%	1.95
19	Golden Crescent	1931	1931	100.00%	1.00
20	Alamo Area	21332	4008	18.79%	5.32
21	South Texas	3419	2147	62.80%	1.59
22	Corpus Christi/Rural Coastal Bend	8803	2706	30.74%	3.25
23	Hidalgo/Willacy	8334	2658	31.89%	3.14
24	Cameron Co.	4761	2286	48.02%	2.08
25	Texoma	1407	1407	100.00%	1.00
26	Central Texas	3079	2112	68.59%	1.46
27	Middle Rio Grande	2632	2065	78.46%	1.27
28	Gulf Coast	50085	6996	13.97%	7.16
	Total	205381	69987		

Source: CSHR

AFDC Spell Data

The AFDC spell data consist of annual summaries of the participation of all caseheads who had been on an active AFDC case in the prior year. These data summarize not only the previous year's spells, but the entire history of these clients' participation as caseheads in the AFDC program (that is, the entire history since program records were automated in the late 1960s). The data contain client-level records with beginning and end dates for every unbroken spell of AFDC receipt, as well as the type-program code associated with each spell.⁴⁸ The major key, or identifying, variables in this data source include AFDC client number, a unique 9-digit number assigned by DHS, and Social Security number (SSN). Although client number is arguably the best key variable within DHS databases, SSN was the primary variable used to accurately link with other agencies' data.

For the present study, four annual spell data files were used, covering the period of state fiscal years 1993 through 1996 (September 1992 through August 1996). The original sample was drawn, as described above, from the 1992 file. This sample was then linked to the three remaining annual files. A small proportion of clients were discarded from the original sample due to their SSNs changing over time (113 clients, or less than 0.2 percent). An additional 84 clients (or about 0.1 percent) were discarded due to duplication of their SSNs either within or between the annual files.

The spell data were summarized by first removing non-AFDC spells. Of the remaining spells, those which occurred during the period of study were converted into 48 Boolean indicator variables, with one representing each month in the study period. To convert monthly data to quarterly data, clients who were on AFDC for any month in a quarter were considered to be on AFDC for that quarter. The spells that occurred prior to the study period were summarized differently through the computation of a number of 'history' variables. These included the number of spells and the average spell length before the study period; the number of months of AFDC receipt out of the prior 60 or 120 months; and the date of first AFDC receipt.

⁴⁸ The type-program codes allow AFDC-Basic or AFDC-UP spells to be distinguished from medical-only or other non-cash-assistance programs.

AFDC Snapshot (Strip File) Data

The snapshot, or strip-file, data consist of monthly ‘images’ of the AFDC caseload. Records in these files are client-based, with one for each individual associated with every AFDC case that is active or ‘on-hold’ for a given month.

This snapshot dataset was used as the source of a number of demographic and other variables describing the case and/or casehead. Of these, only the gender and ethnicity of the casehead were constant across time. The remaining variables were allowed to vary over time. These included monthly grant (benefit) amount and age, education level, and county of current residence of the casehead (used to determine in which LWDA the case resided in a given month). Additional time-varying case descriptors were calculated by aggregating the snapshot files from the client-month to the case-month level. These included the total number of children on the case, and the ages of the youngest and oldest children on the case. These time-varying data were summarized in a manner similar to that described for spell data above, with one output variable for each of the 16 quarters in the study period. For purposes of converting monthly to quarterly data, grant amounts were taken as the average over the period, and for the rest the last non-missing data element was taken.

For various reasons related to difficulties with their archiving process, DHS was not able to provide six of the 48 monthly snapshot files needed to fully cover the study period. The missing files included effective dates of September 1992, November 1992, April 1993, July 1993, October 1993, and January 1994. Generally, the missing data were filled-in by substituting values from the prior month or, for cases that opened in the ‘missing’ month, from the subsequent month. It was problematic, however, that the snapshot file for the target month of the sample, September 1992, was missing. To avoid having extensive missing data on major outcome variables, we had to further restrict the original sample to those clients who were in the AFDC snapshot files in either the month before or the month after September 1992. Application of this restriction caused the removal of 3,773 clients, or about 5.4 percent of the original sample. Although this is a sizable reduction, it affects the sample primarily by removal of short-term assistance cases. Despite this and the other sample reductions mentioned above, the sample still is representative of those clients with valid SSNs who were on AFDC for at least two consecutive months including September 1992.

OAG Child Support Data

Child support data were compiled from three source files received from the OAG: a master file containing case-level data; a children file containing information on the individual children and the cases with which they were associated; and a distribution file containing child support payment and disbursement information at the case-month level.

Master File

The child support master file contains numerous case-level data elements. A *case* is defined as a unique combination of a custodial parent (CP) and a noncustodial parent (NCP), together with one or more of their children. Thus, one parent can have multiple child support cases for which (s)he is the CP, and even multiple cases for the same child (especially if paternity is in dispute). A NCP can also be associated with more than one case when a father, for example, has children with different mothers.

The master file received by CSHR researchers was compiled by OAG programmers from both current records as well as records that had been recently ‘purged’ due to case closure. As such, the master file is essentially a snapshot of the case records, taken around June 1997. Because the information it contains can be updated or corrected, it does not provide a complete picture of how the cases changed over time. However, a number of fields in the file document the date that important transitions occurred. These were used to construct time-varying indicators that show, for example, when a case opened. This was done by creating a variable that would take a value of zero for time periods before the date of the event, and a value of one for periods that included or followed the event. Several indicators were created from the master file in this manner, representing whether a case had been opened by a given point in time, whether the NCP had been located, whether child support was due, and whether wage withholding had been established. Child support payment-due amounts, for both current and past-due support, were also represented in a time-varying manner by setting amounts to zero for periods before the date the payment plan became effective, and to the monthly dollar amount for periods after this date.

The master file also contains a number of descriptive variables including the type and status of the case, the marital status of the CP and NCP, and the type of support

agreement. In the absence of dates associated with changes in such status, the usefulness of these variables in the construction of a longitudinal database was limited. However, several of the variables were used for descriptive purposes. For example, the NCP address fields were used to determine which noncustodial parents live out-of-state, even though the date they moved out-of-state was unknown.

Children File

The children file contains information at the level of the individual child, as well as a case number identifier that allows it to be linked with the master file. As discussed above, there can be more than one child per case, provided they are offspring from the same two parents. A child can also appear on more than one case, particularly in situations in which paternity is questionable.

The children file contains demographic information such as sex and date of birth, as well as identifying information such as SSN and AFDC client number. Like the master file, the children file is essentially a ‘snapshot’ taken from the OAG records around June 1997. It does, however, contain extensive paternity testing information, including test and results dates, which allow the construction of time-varying indicators. The first indicates whether a paternity test has been conducted for a given child. It takes a value of zero before and one on or after the paternity test results date. The remaining three variables indicate the results of such a test: either paternity has been established, excluded, or was inconclusive. These four indicators are then aggregated via summation to the OAG case level, so that they represent the number of children on each case for whom paternity tests have been done and for whom paternity has either been established, excluded, or is inconclusive. One additional variable is computed to represent the number of children on each OAG case.

Distribution File

The distribution file contains monthly child support payment and distribution information at the OAG case level for every month in the study period. Separate records were included for each payment type that occurred in a given month. Payment types are identified by distribution codes, which for present purposes were classified as either IRS refund intercepts or other types of payments. These were maintained separately because

of a large seasonal component to the IRS intercepts. The regular or periodic payments were summed to yield monthly totals for the amount paid, the amount forwarded to the CP, and the amount retained by the state. IRS intercepts were summed in a similar manner to give a total of six monthly payment indicators.

TWC Data

TWC provided two major data sources: JOBS program data, which tracks individual clients' JOBS activities on a monthly basis; and UI wage data, which contains records of individuals' quarterly wages earned in UI-covered employment.

JOBS Program Data

The JOBS program data are contained in yearly activity files in a client-year-month format, with records for all clients for every month in which they were participants in the JOBS program. The records list total numbers of scheduled and actual hours of JOBS participation for each of 21 JOBS components (16 components in the 1993 file). These data were first summarized by adding all actual hours within each component across 3-month intervals to arrive at quarterly totals. They were then collapsed across components into eight categories: assessment, education, English as a second language, job search, job training, life skills, employment, and unpaid work experience. In addition to the eight variables representing *current* JOBS hours, eight more were computed to represent *cumulative* JOBS hours to date in each of the categories.

While measuring the influence of the JOBS program was not the purpose of this study, prior research has shown that, while prior participation in JOBS increases the probability of leaving AFDC, *current* participation in JOBS activities can reduce the probability of AFDC exit.⁴⁹ Therefore, several additional variables were created to describe states of JOBS participation. These included a flag for JOBS assessment only, indicating that the client had been assessed but had no other JOBS activities; a flag representing those currently engaged in JOBS activities, to distinguish these people from those who had completed their activities; and a flag for a JOBS exit, indicating either a coded exit or the client's last appearance in the JOBS activity files.

⁴⁹ King, et al, 1994; Schexnayder and Olson, 1995.

UI Wage Data

The UI database contains quarterly wages for every individual holding UI-covered jobs in Texas. The UI program covers 98 percent of all employment in Texas, with notable exceptions being the self-employed and farm laborers. Separate records are kept for every person-employer combination. UI wage data were retrieved for all individuals in the study: custodial parents, noncustodial parents, and children. These data were summarized by computing total quarterly wages across employers for every individual.

In prior research using Texas UI wage data, CSHR researchers found it useful to ‘clean’ the UI wage data by removing unreasonable wage amounts. These instances of very high wages in a single quarter could indicate an incorrect SSN on one of the datasets. For the present study, we defined as unreasonable any quarterly wages greater than \$10,000 for custodial parents and their children, and greater than \$20,000 for noncustodial parents.

If the custodial parent or child had quarterly earnings in excess of \$10,000, the earnings for that quarter were set to missing. We felt this action was appropriate because individuals with annual earnings of \$40,000 or more are not eligible for AFDC. Therefore, either the AFDC observation represents a fraud case, or the UI wage observation is a case of mistaken identity. In either case, the entire observation will be excluded from any statistical procedures that include UI wages as a variable. If the NCP had earnings over \$20,000, the earnings were set to \$20,000. We felt this action was appropriate because there is no income limit set on the NCP that is analogous to the AFDC eligibility income limit set on the CP. While it is unlikely that the NCP of an AFDC CP would earn \$80,000 per year, it is not impossible. We judged that the harm of wrongly setting these large outliers to zero or missing would be greater than the harm of setting them to the 20,000 limit.

The UI wage edits affected 0.02 percent of the CP wage observations and 0.08 percent of the NCP wage observations. The use of the edited variables improved the fit of the regression equations, and caused the coefficients of wage-related variables to become larger in absolute value.

Statistical Methods Applied

The Boskin-Nold approach was applied for all event probability regressions.⁵⁰ Using this approach for determining the probability of an event occurring, the data are arranged so that each observation in the regression represents a person at risk for the event during a specific period of time. For all regressions except those related to IRS intercepts, each observation represents one person-quarter. For regressions related to IRS intercepts, in order to deal with the seasonal component of IRS intercept collections, the observations represent person-years. The Boskin-Nold approach was applied to:

1. the probability of an exit from AFDC (AFDCEXIT),
2. the probability of recidivism (AFDCENTR),
3. the probability that a case became obligated (CSDUE),
4. the probability that the NCP paid child support other than an IRS intercept (PAID1), and
5. the probability that the NCP paid child support through an IRS intercept (PAID2).

An approach similar to the Boskin-Nold approach was used in fitting models for the amount of obligations and collections (PP1QTR, PP2QTR, IRSPAID, PAIDNIRS). In the regressions for the amount of obligation, all person-quarters during which an individual was obligated were included in the regressions. For regressions of to the amount actually paid by NCP's, the observations included all person-quarters (person-years for IRS intercepts) during which a payment was made.

All regressions in which the dependent variable is continuous (PP1QTR, PP2QTR, PAIDNIRS, IRSPAID) were performed using ordinary least squares (OLS). Regressions on categorical variables (CSDUE, PAID1, PAID2, AFDCEXIT, AFDCENTR) were performed using OLS, LOGIT, and PROBIT. For the categorical variables, only the PROBIT regression results are reported. The OLS and LOGIT procedures produced results that were almost identical to the PROBIT results, and are not reported because to do so would be a redundant waste of space.

In addition to reporting the PROBIT coefficients, the partial derivatives of the probability of the event with respect to a change in an independent variable are reported.

⁵⁰ Michael J. Boskin and Nold, F.C., "A Markov Model of Turnover in Aid to Families with Dependent Children," *Journal of Human Resources*, 1975

The derivatives are evaluated at the sample mean. These derivatives are the source of statements in the text that relate changes in the probability of events to changes in the independent variables. For further information on why this transformation is necessary, see the footnoted reference. The formula for the derivatives is:⁵¹

$$\frac{\partial \Phi(x' \beta)}{\partial x_k} = \phi(x' \beta) \beta_k$$

Where:

$\Phi(\bullet)$ =the cumulative normal distribution function

$\phi(\bullet)$ =the normal probability density function

β =the PROBIT coefficient vector

β_k =the PROBIT coefficient of the k^{th} independent variable

x' =the transpose of the vector of means of the independent variables

x_k =the k^{th} independent variable

⁵¹ Madalla, G.S., *Limited and Qualitative Variables in Econometrics*, Econometric Society Monograph Number 3, Cambridge University Press, 1983, p23.

Table A-2. Definitions of Variables Used in Regression Analysis

Category	Variable Name	Description
Demographics of Caretaker		
	AFDC60	Number of months custodial parent has been on AFDC/TANF out of latest 60 months
	AGLT18	Caretaker is less than 18 years of age
	AG1824	Caretaker is 18 to 24 years of age
	AG2534†	Caretaker is 25 to 34 years of age
	AG3544	Caretaker is 35 to 44 years of age
	AG4559	Caretaker is 45 to 59 years of age
	AG60UP	Caretaker is 60 or more years of age
	MALE	AFDC Caretaker is of male gender
	BLACK	Caretaker is Black
	HISP	Caretaker is Hispanic
	WHITE†	Caretaker is White
	OTHRACE	Caretaker is other race/ethnicity, or unknown
	EDUNK	Educational attainment of caretaker is unknown
	EDLT7	Caretaker highest grade completed seventh grade or less
	ED78	Caretaker highest grade completed seventh or eighth grade
	ED911	Caretaker highest grade completed ninth to eleventh grade
	EDHSUP†	Caretaker completed high school or higher
Demographics of Noncustodial Parent		
	NCPLT18	NCP is under 18 years of age
	NCP1824	NCP is 18 to 24 years of age
	NCP2534†	NCP is 25 to 34 years of age
	NCP3544	NCP is 35 to 44 years of age
	NCP4559	NCP is 45 to 59 years of age
	NCP60UP	NCP is 60 or more years of age
	NCPFEMAL	NCP is a woman
	NCPBLACK	NCP is Black
	NCPHISP	NCP is Hispanic
	NCPWHITE†	NCP is White
	NCPOTHR	NCP is other race/ethnicity, or unknown
AFDC Case Characteristics		
	AFDCEXIT	Caretaker is on AFDC for at least one month in current quarter, and is off AFDC for all months of following quarter.
	AFDCENTR	Former AFDC Caretaker is off AFDC for all months in current quarter and returns to AFDC during any month in the following quarter.
	HHSIZ_3	AFDC/TANF Household size is three individuals
	HHSIZ_4	AFDC/TANF Household size is four individuals
	HHSIZ_5	AFDC/TANF Household size is five or more individuals
	YOUNGKID	Age of youngest child on current AFDC case

	RCNTBIRTH	Age of youngest child is less than one. (i.e. caretaker has had a recent birth of a child)
--	-----------	--

Table A-2. Definitions of Variables Used in Regression Analysis (cont.)

Category	Variable Name	Description
JOBS Participation		
	INJACTS	Dummy variable for currently in JOBS activities
UI Wages		
	CPWAGE	Caretaker wages in current QTR
	NCPWAGE	NCP wages in QTR
	NCEMPLD	Dummy variable for NCP had positive wages in current quarter
	KIDSWAGE	Sum of wages in current quarter for all children on AFDC case
OAG Case Attributes		
	AGHH_2†	OAG case consists of CP and one child
	AGHH_3	OAG case consists of CP and two children
	AGHH_4	OAG case consists of CP and three children
	AGHH_5	OAG case consists of CP and four or more children
	IRSPAID	NCP IRS refund intercepted as child support
	IRSTOCP	IRS refund intercepts forwarded to CP
	CSDUE	Dummy variable for whether child support is due
	PP1QTR	Quarterly amount of current child support obligation
	PP2QTR	Quarterly amount of past due child support obligation
	WDLOCK1†	Dummy variable for no children on case born out of wedlock
	WDLOCK2	Dummy variable for some children on case born out of wedlock
	WDLOCK3	Dummy variable for all children on case born out of wedlock
	MIXRACE	CP and NCP are not of the same race
	MULTCSES	CP has more than one OAG case
	PAID1	NCP made a periodic payment (i.e. a payment other than an IRS intercept)
	PAIDNIRS	Amount of periodic payments the NCP paid in this quarter (i.e. all payments excluding IRS intercept payments)
	PAID2††	NCP made a payment through IRS intercept
	IRSPAID††	Amount the NCP paid through IRS intercept
	OAGEFFORT	Cumulative per case effort expended by OAG
Economic Geographic Variables		
	POPGROW	Population growth rate 1980-1990 in CP's county of residence
	RURAL	1990 Population density was greater than 595 persons per square mile in CP's county of residence
	UNEMP	Unemployment rate in CP's county of residence
	URBAN	1990 Population density was greater than 595 persons per square mile in CP's county of residence

NOTES: † indicates that variable was omitted from regression to prevent perfect multicollinearity when other dummy variables in categorical group were mutually exclusive and exhaustive.
†† Variable is defined on annual rather than quarterly basis to counteract seasonality.

Regression Results

Table A-3. Probability of Award Being Established

Dependent Variable: CSDUE

Number of Observations: 621,915

Mean of Dependent Variable: 0.477

Logarithm of Likelihood Function: -411,834.49

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate	Change in Probability $d(\text{prob}(y))/dx$ (See text)
Intercept***	-0.39361546	0.0062780	-0.1566515
AGEFFORT***	0.005134	0.000054	0.0020432
NCPLT18***	-0.67453424	0.015771	-0.2684519
NCP1824***	-0.14661226	0.004918	-0.0583489
NCP3544	0.0009471	0.004171	0.0003769
NCP4559***	-0.02376033	0.00692	-0.0094562
NCP60UP***	-0.17644997	0.028338	-0.0702237
NCPWAGE***	0.000014	6.196E-07	0.0000056
NCPBLACK***	0.1016892	0.004552	0.0404704
NCPHISP***	0.1534596	0.00442	0.0610740
NCPOTHRC	-0.01276308	0.02135	-0.0050795
MIXRACE	0.0081468	0.00568	0.0032423
NCPFEMAL ***	-1.09162093	0.010901	-0.4344445
MULTCSES***	0.1752691	0.003507	0.0697538
EDUNK***	-0.05638068	0.009633	-0.0224384
EDLT7***	-0.16565339	0.008193	-0.0659269
ED78***	-0.11796487	0.005935	-0.0469478
ED911***	-0.09539686	0.003717	-0.0379661
AGHH_3***	-0.05919951	0.00432	-0.0235603
AGHH_4***	-0.09287895	0.00584	-0.0369641
AGHH_5***	-0.09236776	0.007724	-0.0367606
YOUNGKID***	0.0221799	0.000457	0.0088272
WDLOCK2***	-0.19486445	0.007111	-0.0775524
WDLOCK3***	-0.20167789	0.004101	-0.0802640

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level

Table A-4. Amount of Obligation for Current Support

Dependent Variable: PP1QTR

Number of Observations: 297,449

Mean of Dependent Variable: 467.466

Coefficient of Determination (R Squared): 0.130

Coefficient Estimates:

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate
Intercept***	486.937325	1.92053809
AGEFFORT***	0.307545	0.01644680
NCPLT18***	22.311294	5.99100691
NCP1824***	-45.627077	1.58938682
NCP3544***	-8.614290	1.22024914
NCP4559***	-34.406754	1.98433753
NCP60UP***	-66.411064	8.43436162
NCPWAGE***	0.017619	0.00018458
NCPBLACK***	-58.833977	1.39188057
NCPHISP***	-61.812686	1.33307810
NCPOTHRC***	-72.897294	6.55805806
MIXRACE***	10.236150	1.71166364
NCPFEMAL***	-145.381364	4.70696482
MULTCSES***	-21.682625	1.04482405
EDUNK***	-27.274203	2.96018450
EDLT7***	-74.138405	2.46515902
ED78***	-57.823472	1.79464508
ED911***	-32.258562	1.11565185
AGHH_3***	109.191448	1.28788203
AGHH_4***	179.698214	1.76301571
AGHH_5***	235.767361	2.32405103
YOUNGKID***	-5.854991	0.13630040
WDLOCK2***	-86.776171	2.22376383
WDLOCK3***	-19.700673	1.22048994

*indicates coefficient is significant at 10 percent alpha level
 **indicates coefficient is significant at 5 percent alpha level
 ***indicates coefficient is significant at 1 percent alpha level

Table A-5. Amount of Obligation for Arrears

Dependent Variable: PP2QTR

Number of Observations: 297,449

Mean of Dependent Variable: 119.207

Coefficient of Determination (R Squared): 0.027

Coefficient Estimates:

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate
Intercept***	107.327820	1.13644722
AGEFFORT***	-0.051437	0.00973213
NCPLT18	-5.084157	3.54508103
NCP1824***	-7.022577	0.94049384
NCP3544***	14.042671	0.72206261
NCP4559***	7.713812	1.17419951
NCP60UP**	-12.273595	4.99089649
NCPWAGE	-0.000013053	0.00010922
NCPBLACK***	-10.358739	0.82362272
NCPHISP***	-9.660618	0.78882731
NCPOTHRC***	-40.039770	3.88062434
MIXRACE	0.845687	1.01284916
NCPFEMAL***	-60.588188	2.78526998
MULTCSES***	6.260824	0.61825766
EDUNK	-1.261049	1.75164110
EDLT7***	-16.287142	1.45871781
ED78	-1.486483	1.06195208
ED911***	-2.013340	0.66016886
AGHH_3***	13.655249	0.76208327
AGHH_4***	15.298658	1.04323591
AGHH_5***	21.117786	1.37521945
YOUNGKID***	3.769599	0.08065355
WDLOCK2***	-10.527934	1.31587613
WDLOCK3***	-12.992772	0.72220510

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level

**Table A-6. Probability of Collecting Payments
Other than IRS Intercepts**

Dependent Variable: PAID1

Number of Observations: 297,450

Mean of Dependent Variable: 0.383

Logarithm of Likelihood Function: -169,514.33

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate	Change in Probability d(prob(y))/dx
Intercept***	-0.77318988	0.0099110	-0.2928807
AGEFFORT***	0.0020893	0.000085	0.0007914
NCPLT18***	-0.14119672	0.031451	-0.0534847
NCP1824***	-0.04667597	0.008153	-0.0176806
NCP3544***	0.0522816	0.00628	0.0198040
NCP4559***	0.1772628	0.010174	0.0671463
NCP60UP***	0.4914133	0.041567	0.1861451
NCPWAGE***	0.000213	0.000001007	0.0000807
NCPBLACK***	-0.0585343	0.007183	-0.0221725
NCPHISP***	0.1279253	0.006831	0.0484575
NCPOTHR	-0.05368777	0.034521	-0.0203367
MIXRACE	-0.00771463	0.008756	-0.0029223
NCPFEMAL**	0.0580361	0.024121	0.0219838
MULTCSES***	-0.19432295	0.005382	-0.0736086
EDUNK***	-0.0666457	0.015254	-0.0252451
EDLT7***	0.0353814	0.012519	0.0134023
ED78***	-0.07225678	0.009203	-0.0273705
ED911***	-0.0840317	0.005752	-0.0318308
AGHH_3***	-0.07005494	0.006625	-0.0265365
AGHH_4***	-0.14285758	0.009128	-0.0541138
AGHH_5***	-0.24092811	0.012211	-0.0912625
YOUNGKID***	-0.01145085	0.000704	-0.0043375
WDLOCK2	0.0110089	0.011632	0.0041701
WDLOCK3***	0.109158	0.006256	0.0413485

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level

**Table A-7. Amount Collected other than IRS Intercepts
(if a collection has been made)**

Dependent Variable: PAIDNIRS

Number of Observations: 144,863

Mean of Dependent Variable: 472.457

Coefficient of Determination (R Squared): 0.114

Coefficient Estimates:

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate
Intercept***	340.480866	3.86008971
AGEFFORT***	0.848460	0.03259285
NCPLT18***	111.441710	11.31178847
NCP1824***	-46.055431	3.24625558
NCP3544***	21.906154	2.38991324
NCP4559***	24.708463	3.75423116
NCP60UP	-4.010321	14.79658410
NCPWAGE***	0.035187	0.00033403
NCPBLACK***	-55.415727	2.75261256
NCPHISP***	-36.543146	2.59860179
NCPOTHRC***	-52.349799	12.94167201
MIXRACE***	16.651584	3.30892526
NCPFEMAL***	-129.457983	8.93208883
MULTCSES***	-25.273660	2.07279634
EDUNK	-8.802969	5.85057780
EDLT7***	-61.091316	4.72019067
ED78***	-45.476156	3.58166888
ED911***	-25.078575	2.22516795
AGHH_3***	70.270975	2.57120368
AGHH_4***	116.035732	3.58156508
AGHH_5***	179.156173	5.00188552
YOUNGKID***	-1.568077	0.26861930
WDLOCK2***	-63.595924	4.65471575
WDLOCK3***	-14.312740	2.38690451

*indicates coefficient is significant at 10 percent alpha level
 **indicates coefficient is significant at 5 percent alpha level
 ***indicates coefficient is significant at 1 percent alpha level

Table A-8. Probability of Collecting IRS Intercepts

Dependent Variable: PAID2

Number of Observations: 92,264

Mean of Dependent Variable: 0.207

Logarithm of Likelihood Function: -45,759.68

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate	Change in Probability d(prob(y))/dx
Intercept***	-1.14118904	0.0195390	-0.3214046
AGEFFORT***	0.0005401	0.000155	0.0001521
NCPLT18***	-0.0926854	0.025667	-0.0261039
NCP1824*	0.029705	0.015666	0.0083661
NCP3544***	-0.05184157	0.012087	-0.0146007
NCP4559***	-0.06980564	0.019084	-0.0196601
NCP60UP***	-0.23795746	0.082128	-0.0670184
NCPWAGE***	0.0000178	0.00000041	0.0000050
NCPBLACK**	0.0272992	0.013496	0.0076885
NCPHISP***	0.1176104	0.012948	0.0331238
NCPOTHR***	0.1979225	0.058992	0.0557429
MIXRACE*	-0.02893975	0.0164	-0.0081506
NCPFEMAL	-0.03769282	0.034388	-0.0106158
MULTCSES***	0.0908167	0.010498	0.0255776
EDUNK	0.0256885	0.028709	0.0072349
EDLT7**	0.0522421	0.02357	0.0147135
ED78**	0.0346385	0.017333	0.0097556
ED911	-0.00867236	0.010967	-0.0024425
AGHH_3**	0.0232013	0.0115	0.0065344
AGHH_4	-0.01538311	0.015732	-0.0043325
AGHH_5	-0.03231628	0.020969	-0.0091016
YOUNGKID	0.0013064	0.001306	0.0003679
WDLOCK2***	0.1067008	0.02183	0.0300512
WDLOCK3***	0.0328425	0.011722	0.0092498

Note: this regression was performed on an annual basis to counteract seasonality.

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level

**Table A-9. Amount Collected through IRS Intercepts
(if a collection has been made)**

Dependent Variable: IRSPAID

Number of Observations: 22,066

Mean of Dependent Variable: 935.512

Coefficient of Determination (R Squared): 0.032

Coefficient Estimates:

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate
Intercept***	498.499483	24.42624771
AGEFFORT***	2.640425	0.19664470
NCPLT18	39.730245	32.36185315
NCP1824***	-66.932009	19.08455229
NCP3544**	-31.124404	15.04813500
NCP4559***	-80.871750	23.97360693
NCP60UP**	-268.628796	107.76671294
NCPWAGE***	0.004637	0.00049710
NCPBLACK***	119.063265	16.93339809
NCPHISP***	142.865182	16.09298764
NCPOTHRC*	125.187621	70.22830372
MIXRACE	-5.692635	20.21523675
NCPFEMAL	-35.704373	42.26178617
MULTCSSES	-8.486019	12.97265397
EDUNK	-38.155507	34.49996733
EDLT7**	62.429998	29.00828874
ED78***	75.606456	21.11103060
ED911***	50.328350	13.53874612
AGHH_3***	117.652613	14.20443361
AGHH_4***	227.351391	19.51357478
AGHH_5***	302.218597	26.05715596
YOUNGKID	1.655845	1.62660292
WDLOCK2*	-46.317160	26.38640903
WDLOCK3	5.334512	14.47042623

Note: this regression was performed on an annual basis to counteract seasonality.

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level

Table A-10. Probability of Exit from AFDC

Dependent Variable: AFDCEXIT

Number of Observations: 602,485

Mean of Dependent Variable: 0.117

Logarithm of Likelihood Function: -188,083.02

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate	Change in Probability d(prob(y))/dx
Intercept***	-1.10248915	0.0108650	-0.1882469
IRSTOCP	0.0001665	0.000111	0.0000284
PAIDNIRS***	0.0014474	0.000026	0.0002471
AFDC60***	-0.00669109	0.00013	-0.0011425
AGLT18**	0.0836919	0.033931	0.0142902
AG1824***	0.0246099	0.006359	0.0042021
AG4559***	-0.07126193	0.009435	-0.0121678
AG60UP***	0.1540653	0.032306	0.0263062
BLACK***	-0.07206906	0.006361	-0.0123056
HISP***	-0.06814488	0.006259	-0.0116355
OTHRACE**	-0.06048612	0.025824	-0.0103278
MALE	0.010966	0.011778	0.0018724
MULTCSES***	-0.12108442	0.005508	-0.0206748
EDUNK	-0.00422431	0.013879	-0.0007213
EDLT7***	-0.14704381	0.00996	-0.0251073
ED78***	-0.04603862	0.008165	-0.0078610
ED911***	-0.02681228	0.005348	-0.0045781
HHSIZ_3***	-0.02237991	0.006672	-0.0038213
HHSIZ_4***	-0.02073535	0.007969	-0.0035405
HHSIZ_5	-0.01121285	0.009507	-0.0019146
YOUNGKID***	0.0174511	0.000673	0.0029797
RCNTBRTH***	-0.0445923	0.008203	-0.0076140
CPWAGE***	0.0004905	0.000002434	0.0000838
KIDSWAGE***	0.0000323	0.000007186	0.0000055
RURAL***	-0.01608365	0.005543	-0.0027462
URBAN***	-0.06784118	0.005819	-0.0115837
POPGROW	0.0267052	0.036383	0.0045598
UNEMP***	-0.38913227	0.052724	-0.0664432
WDLOCK2	-0.00184141	0.006113	-0.0003144
WDLOCK3***	-0.06132282	0.006559	-0.0104707
INJACTS***	-0.27482876	0.007745	-0.0469262

*indicates coefficient is significant at 10 percent alpha level
 **indicates coefficient is significant at 5 percent alpha level
 ***indicates coefficient is significant at 1 percent alpha level

Table A-11. Probability of Return to AFDC (Recidivism)

Dependent Variable: AFDCENTR

Number of Observations: 200,028

Mean of Dependent Variable: 0.113

Logarithm of Likelihood Function: -66,490.55

Name of Independent Variable	Coefficient Estimate	Standard Error of Coefficient Estimate	Change in Probability d(prob(y))/dx
Intercept***	-1.29749477	0.0180590	-0.2255847
IRSTOCP	-0.00018974	0.000197	-0.0000330
PAIDNIRS***	-0.0005854	0.000025	-0.0001018
AFDC60***	0.0038177	0.000224	0.0006638
AGLT18***	0.2266637	0.071912	0.0394082
AG1824***	0.1178738	0.010613	0.0204937
AG4559***	-0.28722335	0.018343	-0.0499372
AG60UP***	-0.88719162	0.084272	-0.1542487
BLACK***	0.1502811	0.010599	0.0261281
HISP***	0.0901445	0.010514	0.0156727
OTHRACE***	-0.18857705	0.051136	-0.0327863
MALE***	-0.13630529	0.0215	-0.0236983
MULTCSES***	0.3375692	0.009241	0.0586904
EDUNK*	0.0428816	0.022603	0.0074555
EDLT7***	-0.05792842	0.018754	-0.0100715
ED78***	0.0398602	0.014163	0.0069302
ED911***	0.0310931	0.008956	0.0054059
HHSIZ_3***	0.0918207	0.011248	0.0159641
HHSIZ_4***	0.0840507	0.013518	0.0146132
HHSIZ_5***	0.0730135	0.016273	0.0126943
YOUNGKID***	-0.01309151	0.001129	-0.0022761
RCNTBRTH***	-0.06889914	0.013692	-0.0119789
CPWAGE***	-0.00017896	0.000003426	-0.0000311
KIDSWAGE***	-0.00006458	0.000012	-0.0000112
RURAL	-0.01294072	0.009337	-0.0022499
URBAN**	-0.02171411	0.009756	-0.0037753
POPGROW	0.0554641	0.06103	0.0096431
UNEMP***	0.3077477	0.092688	0.0535056
WDLOCK2***	-0.06925248	0.010359	-0.0120404
WDLOCK3***	0.1010413	0.011008	0.0175672

*indicates coefficient is significant at 10 percent alpha level

**indicates coefficient is significant at 5 percent alpha level

***indicates coefficient is significant at 1 percent alpha level