

The Impacts of Welfare Reform on Children

The Indiana Welfare Reform Evaluation

Prepared for
Division of Family and Children
Indiana Family and Social Services Administration
402 W. Washington Street
Indianapolis, Indiana 46207

Prepared by
Erik Beecroft
Kevin Cahill
Barbara D. Goodson



This study was completed under a contract with the Indiana Family and Social Services Administration, and with funding from the U.S. Department of Health and Human Services, the Annie E. Casey Foundation, the David and Lucile Packard Foundation, and the Indiana Family and Social Services Administration.

Contents

Acknowledgements

Executive Summary	1
Chapter 1: Introduction.....	7
1.1 How Might Indiana’s Welfare Reform Program Affect Children?.....	10
1.2 Policy Differences Captured by the Random Assignment Design.....	14
1.3 Summary of Impacts on Adult Outcomes (Based on Administrative Records).....	17
1.4 Overview of Remaining Chapters.....	19
Chapter 2: Research Methods.....	21
2.1 Sample for the Child Report.....	21
2.2 Response Rates and Adjustments for Non-Response.....	24
2.3 Baseline Characteristics of the Sample	25
2.4 Assessing Impacts of Indiana’s Welfare Reform.....	27
Chapter 3: Impacts on Household Income and Material Well-Being	30
Summary of Key Findings	30
3.1 Impacts on Employment, TANF Receipt, and Income	31
3.2 Impacts on Material Hardship	34
3.3 Impacts on Family Structure.....	36
3.4 Impacts on Subgroups.....	39
3.5 Conclusion.....	39
Chapter 4: Impacts on Children.....	44
Summary of Key Findings	44
4.1 Impacts on Focal Children	45
4.2 Impacts on Adolescents	58
4.3 Impacts on Subgroups: Focal Children.....	62
4.4 Impacts on Subgroups: Adolescents.....	74
4.5 Conclusion.....	79
Chapter 5: Impacts on Children’s Environments: The Home, Stability, Father Involvement, and Child Care	81
Summary of Key Findings	82
5.1 Impacts on the Home Environment and Parenting.....	83
5.2 Impacts on Maternal Mental Health and Domestic Abuse.....	89
5.3 Impacts on Household Stability and Nonresident Father Involvement	92
5.4 Impacts on Child Care	96
5.5 Impacts on Subgroups.....	101
References.....	110

List of Exhibits

Exhibit 1.1	Outcomes Relevant to Assessing Impacts on Children’s Well-Being	12
Exhibit 1.2	Indiana Welfare Reform Policies, Compared With AFDC Policies.....	15
Exhibit 2.1	Sample Size for This Report and Its Relationship to the Full Sample for the Indiana Welfare Reform Evaluation	22
Exhibit 2.2	Selected Baseline Characteristics of Welfare Reform and Traditional Welfare Group Respondents at the Time of Random Assignment for Families of Focal Children.....	26
Exhibit 3.1	Impacts on Employment, TANF Receipt, and Income for Families of Focal Children	32
Exhibit 3.2	Impacts on Sources of Income for Families of Focal Children	35
Exhibit 3.3	Impacts on Material Hardship and Financial Strain for Families of Focal Children.....	37
Exhibit 3.4	Impacts on Family Structure for Families of Focal Children	38
Exhibit 3.5	Impacts on Selected Economic and Family Structure Outcomes for Subgroups Defined by Ongoing or Applicant Status for Families of Focal Children.....	40
Exhibit 3.6	Impacts on Selected Economic and Family Structure Outcomes for Subgroups Defined By Mother’s Employment History for Families of Focal Children.....	42
Exhibit 4.1	Impacts on Education Outcomes for Focal Children.....	47
Exhibit 4.2	Impacts on Social Behavior and Emotional Well-Being for Focal Children.....	52
Exhibit 4.3	Impacts on Health and Safety for Focal Children	56
Exhibit 4.4	Impacts on Child Outcomes for Adolescents (Ages 13 to 17)	59
Exhibit 4.5	Impacts on Child Outcomes for Subgroups Defined by Gender for Focal Children....	64
Exhibit 4.6	Impacts on Child Outcomes for Subgroups Defined by TANF Ongoing or Applicant Status for Focal Children	68
Exhibit 4.7	Impacts on Child Outcomes for Subgroups Defined by Mother’s Employment History for Focal Children.....	71
Exhibit 4.8	Impacts on Child Outcomes for Subgroups Defined by Gender for Adolescent Children	75
Exhibit 4.9	Impacts on Child Outcomes for Subgroups Defined by Ongoing or Applicant Status for Adolescent Children	77
Exhibit 4.10	Impacts on Child Outcomes for Subgroups Defined by Mother’s Employment History for Adolescent Children	78
Exhibit 5.1	Impacts on the Home Environment and Parenting for Families of Focal Children	84
Exhibit 5.2	Impacts on Maternal Mental Health and Domestic Abuse for Families of Focal Children.....	90
Exhibit 5.3	Impacts on Household Stability and Nonresident Father Involvement for Families of Focal Children	93

Exhibit 5.4	Impacts on Child Care Arrangements for Families of Focal Children	98
Exhibit 5.5	Impacts on Selected Home Environment, Parenting and Child Care Outcomes for Subgroups Defined by Ongoing or Applicant Status for Families of Focal Children	102
Exhibit 5.6	Impacts on Selected Home Environment, Parenting, and Child Care Outcomes for Subgroups Defined by Mother’s Employment History for Families of Focal Children	107

Acknowledgements

This study could not have been completed without years of commitment, support, and hard work from numerous staff at the Division of Family and Children (DFC) in Indiana's Family and Social Services Administration (FSSA). We thank everyone who helped, and would like to acknowledge a few individuals whose contributions were especially important.

From the beginning of the evaluation in December 1995 until he left DFC in December 2001, DFC's former Director, Jim Hmurovich, vigorously supported all aspects of the evaluation, helped us solve problems as they arose, and responded directly and thoughtfully on every issue. Char Burkett-Sims, FSSA's main TANF policy expert, has played a leading role in the evaluation since the beginning. Her knowledge of field operations and her ability to obtain assistance from DFC staff statewide was invaluable in administering the child survey. Kathy Koehler, the manager of DFC's Bureau of Program Evaluation during the first part of the child study, helped us clear obstacles and obtain needed data, was an effective liaison within FSSA and to other state agencies, and provided useful advice during the design and administration of the survey. Her successor, Sherisse Webb, provided critical assistance and helped ensure the successful conclusion of the survey. Ralph Jones, the current state project officer, provided needed support while this report was being drafted. Sharon Eichmann has been adept in providing help with contract management. David Webster supplied the administrative records necessary to select a sample for the survey and to examine baseline characteristics.

We are grateful to the U.S. Department of Health and Human Services (US DHHS) for their financial support of this evaluation, and to Howard Rolston and Alan Yaffe for their guidance on the survey sampling design, advice on the administration of the survey, and comments on the draft report.

We are grateful for financial support for the survey from the Annie E. Casey Foundation, and the David and Lucile Packard Foundation.

Participants in the Project on State Level Child Outcomes paved the way for Indiana's survey and helped guide the analysis and reporting. We are grateful to staff at Child Trends, Martha Moorhouse in the Office of the Assistant Secretary for Planning and Evaluation within US DHHS, other researchers, and staff from the other four states involved. At MDRC, Pamela Morris generously shared SAS code for developing analysis files, and she, Lisa Gennetian, and Barbara Goldman provided helpful advice based on their experience with the Florida and Minnesota surveys.

At Abt Associates, we thank Chris Hamilton for technical review, David Fein for substantive and editorial review, and Denise Young, Jeff Smith, and Margie Washington for producing this report. Nancy Walsh skillfully edited the report.

Finally, we are grateful to the survey respondents, who were willing to answer detailed and personal questions, and who had something important to say.

Executive Summary

The extensive federal and state welfare reforms of the 1990s increased the possibility that welfare-to-work programs targeted at adults would indirectly affect children. During the first half of the decade, prior to federal welfare reform, states shifted to a “Work First” approach aimed at moving adults quickly from welfare to work through employment-oriented activities and imposing stiff sanctions for noncompliance. Many states instituted “personal responsibility” requirements that broadened the scope of welfare policy to include parenting (for example, through school attendance and immunization requirements). A significant provision of the federal Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), in terms of the potential effect on children, was the imposition of a 5-year time limit on families’ receipt of cash assistance. In addition, the work participation requirements in PRWORA encouraged states to increase participation in welfare-to-work programs by narrowing exemptions.

Critics of welfare reform feared that children’s environments would deteriorate in some families, if benefit reductions from time limits and sanctions exceeded any gains in earnings. They also worried that the quality of parenting and amount of supervision children received might decline when single mothers spent more time at work.

Proponents of welfare reform believed that the reforms would have positive effects on children. Increased income from work would leave the family better off. Maternal employment also might help to regularize family routines and provide better role models that would be advantageous for children. Personal responsibility provisions would lead to better quality parenting.

To measure welfare reform’s impacts on children, in 1997 the U.S. Department of Health and Human Services augmented ongoing welfare reform evaluations in five states to conduct surveys focusing on children’s outcomes. The resulting collaboration—the Project on State-Level Child Outcomes—provides thorough and rigorous measures of welfare reform’s impacts on children. Reforms in the five states—Connecticut, Florida, Indiana, Iowa, and

Minnesota—represent a range of policies, and the research designs all used random assignment and consistent outcome measures. This report presents the results of the Indiana child survey.¹

This report addresses the following research question: **How has Indiana’s welfare reform program affected children?** The findings are based on an in-home survey conducted between March and November 2000. The survey, which generated a 70-percent response rate, was administered to a representative statewide sample of single-parent families with children, on average 5 years after the families entered Indiana’s welfare reform program. Most of the results in this report are based on a sample of 1,679 families who had a child between 5 and 12 years old at the time of the survey. Findings based on a smaller set of outcomes are presented for 1,126 adolescent children who were between 13 and 17 years old at the time of the survey. The survey measured numerous child outcomes relating to educational performance, social and emotional adjustment, and health. In addition, the survey measured a number of other aspects of children’s environments that could be affected by welfare reform, including the home environment and parenting practices, family stability and turbulence, maternal mental health and domestic abuse, absent parent involvement, and child care.

This study measured impacts as the difference in outcomes between two groups, one randomly assigned to participate in Indiana’s welfare reform program, and the other assigned to a “traditional” welfare environment. Because random assignment ensures that the two groups are alike in all respects, statistically significant differences in outcomes can be attributed to the different policies applied to the two groups or, in other words, to welfare reform.

The Welfare Reform group was subject to a vigorous “Work First” environment in which adults were encouraged to find a job quickly. The State has also sought to increase work participation by narrowing exemptions from work requirements and providing child care subsidies. These policies led to higher rates of participation in mandatory employment and

¹ The child impact results for Minnesota are presented in Gennetian and Miller (2000). Child impact results for Florida are presented in Chapters 5 and 6 of Bloom *et al.* (2000). Connecticut’s results were released in Bloom *et al.* (2002). Iowa’s results are presented in Fraker *et al.* (2002).

training activities and higher sanction rates for the Welfare Reform group than for the Traditional Welfare group. The Welfare Reform group was also subject to a 24-month time limit on adults' receipt of TANF and a family cap policy that provided no additional grant for children conceived while a mother was receiving cash assistance. In addition, adults in the Welfare Reform group were required to comply with a number of personal responsibility provisions.

The Traditional Welfare group operated under pre-welfare reform rules. They were not subject to a time limit or family cap or personal responsibility requirements, and for much of the study period they were not required to participate in Indiana's welfare-to-work program.

Indiana's time limit and sanction policies are relatively lenient. Unlike most states, Indiana has no sanctions or time limits that could automatically terminate benefits for an entire family. The 24-month time limit applies to only adult recipients and does not affect children's receipt of cash assistance. Until April 2002 Indiana elected under section 415 of the Social Security Act not to apply the federal 5-year time limit, on the grounds that it was inconsistent with the state's waiver authority under section 1115.

Findings for elementary school-age children. Overall, analyses of the survey data suggest that Indiana's welfare reform program did not have large impacts on elementary school-age children (those between 5 and 12 years old at the time of the survey). Welfare reform had no statistically significant impacts on education or health outcomes. For outcomes involving social behavior and emotional well-being, the study found only one statistically significant impact: an increase in arrest rates for the subset of elementary school-age children who were 10 to 12 years old at the time of the survey. Among children in this age group, 2.2 percent of those in the Welfare Reform group had been arrested, compared to 0.5 percent of those in the Traditional Welfare group. It is not clear, however, whether this is a real effect of welfare reform or only a chance artifact of multiple significance tests.

One reason why Indiana's program did not have large impacts on children may be that the program did not affect average household income.² A synthesis of five recent random assignment evaluations found few effects on young children for welfare-to-work programs such as Indiana's that mandate work but that do not provide earnings supplements to increase household income (Morris et al. 2001). The same synthesis, however, found some positive effects on young children in programs that did increase household income. From this standpoint, Indiana's introduction of generous financial supports to working recipients beginning in July 2000 (not reflected in this report) could bode well for children. Under the new policy, working families receiving TANF in Indiana now continue to receive their full TANF grant until their income reaches the poverty line.

Indiana's program did increase adults' employment, which was accompanied by a small increase in the use of child care. These changes, however, did not lead to effects on survey measures of children's well-being.

Even in the absence of impacts for the full sample of elementary school-age children, certain subgroups may have been affected. The study examined impacts for subgroups defined by welfare receipt history, mothers' employment history, and child gender and found few significant differences in impacts across subgroups.

If the lack of clear positive effects on young children is disappointing to those who had hoped that welfare reform would benefit children, the lack of clear negative effects should provide some reassurance to those who were concerned that welfare reform would harm children. It is possible that impacts of welfare reform on children will materialize after families reach the federal 5-year time limit, although the majority of families will leave welfare before they reach the 5-year time limit.

Findings for adolescents. Although Indiana's child survey focused primarily on 5- to 12-year-old children, it did include a subset of questions pertaining to adolescents, defined as children who were 13 to 17 years old at the time of the survey. For all but one of the small

² Total income remained unchanged (on average) because the increased earnings brought about by welfare reform were offset by decreases in TANF and food stamp payments.

number of outcomes available for adolescents, the study found no statistically significant impacts of welfare reform. The exception was a small adverse effect on adolescents' school performance. On a scale of 1 to 5, with 1 representing "not well at all" and 5 representing "very well," parents in the Welfare Reform group gave their adolescents an average school performance score of 3.5, compared to 3.7 for parents of adolescents in the Traditional Welfare group, a small but statistically significant difference. This finding is consistent with other recent studies showing some adverse effects of welfare reform on adolescents.

The status of families 5 years after welfare reform. In addition to providing evidence on how welfare reform has affected children, this study is useful for what the survey data reveal about the status of Indiana families 5 years after being exposed to welfare reform. The overall finding that welfare reform did not adversely affect children does not mean that these children are doing well. The survey data show that a large proportion of these families, perhaps most, remain financially insecure and face family problems.

Most survey respondents had very low income. More than half of the families had income below the poverty line, a level generally regarded as insufficient to meet a household's basic needs. Only about 16 percent of families had household income at least 150 percent of the poverty line, a more reasonable but still conservative measure of income sufficient to meet basic needs. Consistent with their low incomes, about 40 percent of families met the U.S. Department of Agriculture's definition of being food insecure, and 20 percent of respondents reported using food banks in the 12 months prior to the survey.

In addition to having low household income, respondents and their families faced other challenges. Nearly 40 percent of mothers were at risk of clinical depression, and more than 25 percent reported being abused by their partner in the 12 months prior to the survey. Less than 10 percent of the children in the surveyed families had their biological father living in their household, and 35 percent of the children had *no* contact with their father in the preceding 12 months.

Consistent with these economic and family disadvantages, the few child outcomes measured for adolescents suggest difficulties in and out of school. Parents reported that close to 20

percent of their adolescents were performing poorly in school (more than twice the rate reported for younger children), 33 percent had been suspended or expelled since random assignment, and 7 percent had dropped out of school (even though most of the adolescents in the sample were under 16). In addition, about 20 percent of the adolescents in the sample had some involvement with police.

These multiple disadvantages are not due to welfare reform. Our study found very little evidence that Indiana's program affected any of these outcomes. The problems also are not unique to welfare recipients in Indiana; evidence from other states suggests similar levels of disadvantage among single-parent families on welfare. Improving these families' situations will take a broader effort than welfare reform, and time. Increasing household income, whether through earnings disregards or other approaches, may help.

Chapter 1

Introduction

At both the federal and state levels, welfare reform initially focused on adult recipients. Welfare policies were designed to influence the behavior of adult recipients, and the early research accordingly examined the policies' impacts on such adults.

Nevertheless, many policy makers and researchers recognized early the potential for welfare reform to affect the *children* in families receiving welfare. Some were concerned that children would be harmed by work requirements and time limits, if terminating welfare payments meant reduced family income. Others were concerned that increasing the employment of mothers in single-parent families could be bad for children if it decreased parental supervision. On the other hand, some analysts expected that children in welfare families would be better off overall if their mothers worked, reasoning that incomes would be higher and that working parents might serve as better role models than parents on welfare. Although expectations differed, policy makers and researchers agreed that welfare reform must be judged not only on how it affects adults, but on how it affects children.

Research questions addressed in this report. This report uses detailed data from an in-home survey of Indiana families receiving welfare to answer the following question: How has welfare reform in Indiana affected the well-being of children in families that have received welfare? To answer this question, the report estimates the effects of Indiana's welfare reform program on a broad range of outcomes for children, including educational performance, health and safety, and social and emotional adjustment.

An assessment of welfare reform's impacts on children should examine not only direct effects on children but indirect indicators of children's well-being, such as economic outcomes and changes in home environment and family functioning. The specific goals of welfare reform are to increase parents' employment and decrease their reliance on welfare. If such impacts occur, families may experience consequent effects on household income, living situations, child care use, and mothers' psychological well-being. These outcomes, in

turn, can influence the home environment and ultimately affect the well-being of children in families receiving welfare. Examining such a sequence of outcomes may offer researchers evidence on *how* and *why* various impacts on children occurred. Therefore, in addition to presenting findings on child outcomes, this report presents information on welfare reform's impacts on outcomes for families, including:

- Total household income, sources of income, material hardship, and parents' employment;
- Families' use of various types of government assistance and access to medical care;
- Parents' marital status and family living arrangements;
- The home environments of families receiving welfare, including stability and turbulence in children's environments;
- Parenting practices, mothers' psychological well-being, and involvement of absent parents; and
- Parents' use of child care and the quality of that care.

Data source for this report. The findings in this report are based on an in-home survey of 1,679 families who received welfare during the first year of Indiana's welfare reform program (May 1995 to April 1996) and who had at least one child of elementary school age (5 to 12 years old) at the time of the survey. Survey interviews were conducted between March and November of 2000, on average 5 years after the families became subject to the State's welfare reform policies.

The survey is based on an experimental design. At the time survey respondents entered the evaluation in 1995 or 1996, approximately half were randomly assigned to the Welfare Reform group, which was subject to Indiana's welfare reform policies. The other half were randomly assigned to the Traditional Welfare group, which was subject to traditional AFDC (Aid to Families with Dependent Children) policies. Although random assignment is the most accurate way to estimate program impacts, the impacts presented in this report likely underestimate the full effects of Indiana's welfare reform policies on children, because the Traditional Welfare group was not fully insulated from all of the State's welfare reform policies.¹

¹ In large-scale social experiments it is difficult to completely isolate the control group from exposure to the program, and some amount of control group exposure is common. Experiments still produce unbiased impact estimates of the actual treatment-control difference in program experiences, but those impacts will generally be smaller than if there had been no control group exposure. Even with this risk, a well-executed random assignment design is the only approach that can guarantee unbiased impacts.

Most questions in the survey referred to a single elementary school-age child in each family (the “focal child”).² Focusing on one child in a family allowed us to collect more in-depth information than otherwise would have been possible. Certain questions, however, were asked about *each* child in the family, making it possible to examine a subset of outcomes for adolescents. Although most questions in the survey pertained to the children in a family, only parents were interviewed.

This report’s relationship to the broader evaluation. This report, and the survey on which it is based, are part of the broader Indiana Welfare Reform Evaluation (IWRE), a 6-year statewide random assignment study. In addition to the study of child well-being, the IWRE includes an impact analysis of adult outcomes, a process study that examines the program’s evolving implementation, and a cost-benefit analysis that shows whether the program’s benefits have exceeded its costs. The impact analysis measures outcomes over time for approximately 70,000 adults, using State administrative records and two follow-up surveys. The 1,679 families in the child survey are a subset of the full sample for the impact analysis. The final report on adult outcomes, which will present impacts for 5 years, is scheduled for release in summer 2002.

This report’s relationship to the Project on State-Level Child Outcomes. The child well-being survey on which this report is based is very similar to those administered in four other states as part of the Project on State-Level Child Outcomes, initiated and sponsored primarily by the Administration for Children and Families in the U.S. Department of Health and Human Services. Like Indiana, the other four states—Connecticut, Florida, Iowa, and Minnesota—administered the child well-being survey in respondents’ homes using a random assignment design and as part of a broader welfare reform evaluation.³

The remainder of this chapter. The next section of this chapter examines hypotheses about how welfare reform might affect children. Following that section is a discussion of what

² When a family had more than one child in the 5- to 12-year age range, one child was randomly selected to be the focal child.

³ The child impact results for Minnesota are presented in Gennetian and Miller (2000). Child impact results for Florida are presented in Chapters 5 and 6 of Bloom *et al.* (2000). Connecticut’s results are in Bloom *et al.* (2002). Iowa’s results are presented in Fraker *et al.* (2002).

Indiana's experiment tests—that is, the differences in policies and experiences of the Welfare Reform and Traditional Welfare groups. A subsequent section briefly summarizes impacts on adults based on the full statewide sample. The chapter concludes by describing how the remaining chapters of this report are organized.

1.1 How Might Indiana's Welfare Reform Program Affect Children?

The expected effects on children of Indiana's welfare reform program are unclear. They could be positive, negative, or nonexistent. If the program increases family income, children could benefit directly. If the program improves parents' psychological well-being by increasing their employment and decreasing their reliance on welfare, better home environments and stronger parenting practices could result, which would also be good for children.

On the other hand, welfare reform could lower income for families in which the adults are sanctioned or reach the time limit on welfare receipt. Such income losses could lead to more severe material hardship for children. Increases in employment might also lead to stress, especially for single parents trying to meet the demands of work and family. Added stress could adversely affect parenting practices, which would negatively affect children. Effects could also vary for different types of families on welfare. A reform, for example, may result in positive impacts on children for certain types of families and negative impacts on children for other types of families.

Yet a third possibility is that welfare reform could have *no impact* on children. The policies are targeted at adults, not children, and the impacts on adults may not be large enough to cause secondary effects on children.

Given these very different but plausible scenarios, it is difficult to predict how Indiana's welfare reform program might affect children. This section describes various ways that welfare reform may affect children, lists the outcomes measured by the survey, and summarizes the results of recent research examining welfare reform's effects on children.

Pathways by which welfare reform might affect children. Although welfare reform policies do not apply directly to children, they can affect children by influencing their

parents' behavior or other aspects of the family's situation. Exhibit 1.1 shows a variety of outcomes that might be affected by welfare reform, arranged in columns to show possible sequences of changes.⁴ Column 1 shows the direct targets of welfare reform policies: income, employment, and family formation. Columns 2 and 3 show family and child outcomes that might be indirectly affected by welfare reform policies, and column 4 shows the child outcomes that could ultimately be affected. For example, if welfare reform increases mothers' employment (column 1), mothers' psychological well-being could improve (column 2), which, in turn, could lead to better parenting practices (column 3). Such better parenting might improve children's social and emotional adjustment (column 4). The potential pathways between columns 1 and 4 are numerous. Impacts on children need not be mediated through columns 2 and 3; for example, a change in family income (column 1) might have a direct effect on a child's hunger or nutrition (column 4), without any intermediate effect on other variables or aspects of the child's environment.

Even though the possible pathways from the targets of reforms to child impacts are numerous, the path diagram is useful in attempting to understand reasons for the observed impacts on children, if any. If welfare reform has no effect on its major targets (column 1) or on column 2 and 3 outcomes, it is unlikely to have effects on children (column 4). Conversely, if impacts on children *are* observed, researchers may be able to identify possible reasons for those impacts by examining the pattern of impacts for intermediate outcomes.

Indiana's child well-being survey measures all of the outcomes listed in the four columns of Exhibit 1.1. Chapter 3 of this report presents impacts on column 1 outcomes, Chapter 4 discusses impacts on column 4 outcomes, and Chapter 5 presents impacts on column 2 and 3 outcomes.

⁴ Child Trends developed the framework for Exhibit 1.1 through a collaborative process with participants in the Project on State-Level Child Outcomes. For more information about the development of the constructs in Exhibit 1.1, see Child Trends (1999).

Exhibit 1.1
Outcomes Relevant to Assessing Impacts on Children’s Well-Being

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>	<u>Column 4</u>
TARGETS OF WELFARE POLICIES	OTHER VARIABLES LIKELY TO BE AFFECTED BY STATE POLICIES	ASPECT OF CHILD’S ENVIRONMENT AFFECTED BY PREVIOUS COLUMNS	CHILD OUTCOMES
<p><u>INCOME</u></p> <ul style="list-style-type: none"> • Receiving TANF • TANF amount received • Total income • Income as a percent of federal poverty line • Sources of income (earnings of all household members, food stamps, SSI, EITC, child support, TANF, family and friends, other) • Material hardship and financial strain • Sources of financial assistance • Homelessness <p><u>EMPLOYMENT</u></p> <ul style="list-style-type: none"> • Employment status • Earnings <p><u>FAMILY FORMATION</u></p> <ul style="list-style-type: none"> • Marital status • Living arrangements • Total household size • Fertility • Housing status 	<p><u>MATERNAL MENTAL HEALTH AND DOMESTIC ABUSE</u></p> <ul style="list-style-type: none"> • Depression • Abuse by partner <p><u>STABILITY AND TURBULENCE</u></p> <ul style="list-style-type: none"> • Number of moves of residence • Number of jobs • Change in marital status or cohabitation • Foster care • Number of school changes <p><u>ABSENT PARENT INVOLVEMENT</u></p> <ul style="list-style-type: none"> • Presence of father in the home • Paternity establishment • Financial support provided • Frequency of contact with child 	<p><u>CHILD CARE</u></p> <ul style="list-style-type: none"> • Extent • Type • Safety • Stability • Extracurricular or after-school activities <p><u>HOME ENVIRONMENT AND PARENTING PRACTICES</u></p> <ul style="list-style-type: none"> • Emotional support and cognitive stimulation provided to child • Family support for learning • Family routines • Parenting (warmth, harshness, aggravation, monitoring) 	<p><u>EDUCATION</u></p> <ul style="list-style-type: none"> • School performance • School engagement • Grade retention • Special education • School attendance <p><u>HEALTH AND SAFETY</u></p> <ul style="list-style-type: none"> • Rating of child’s health • Accidents and injuries • Medical and dental care (access and use) • Hunger <p><u>SOCIAL AND EMOTIONAL ADJUSTMENT</u></p> <ul style="list-style-type: none"> • Positive behaviors/Social competence • Behavior problems • School disciplinary actions (suspensions or expulsions) • Arrests and convictions (ages 10-12) <p><u>ADOLESCENT OUTCOMES (AGES 13 TO 17)</u></p> <ul style="list-style-type: none"> • School performance • School dropout • School disciplinary actions • Involvement with police • Teen births

Source: Abt Associates Inc. modification of a framework developed by Child Trends Inc., as part of the Project on State-Level Child Outcomes.

Potential for impacts on subgroups. If Indiana’s welfare reform program does affect child well-being, the impacts may be larger for some types of children and families than for others. This report examines impacts on two age groups of children: elementary school-age children and adolescents. It also separately considers impacts for boys and girls. In addition, it compares impacts for subgroups of *families*, defined by recent work history and welfare receipt status at the time of random assignment. Previous analyses from the Indiana evaluation have shown differences in adult impacts across these family subgroups, which could lead to differences in child impacts.⁵ These subgroups also reflect differences in the degree of disadvantage. It is important to know whether welfare reform has larger effects on the most disadvantaged children.

Results of other recent research. Within the past 2 years, results have been released from several random assignment studies of the impacts of welfare reform programs on children, the first such studies available.⁶ For most of the programs studied, results show no systematic impacts on elementary school-age children. Some programs, however, produced positive impacts on school achievement and behavior for elementary school-age children. These programs all included earnings supplements that increased parents’ employment and raised family income.

For adolescents, on the other hand, impacts were more consistent and more likely to be negative than positive. The adverse impacts included lower school achievement and increases in behavior problems.⁷ For the most part, these impacts were small.

The early evidence, therefore, suggests that welfare reform may not dramatically affect young children but that it may affect adolescents. A limitation of the studies released to date is that they examined only two states (Connecticut and Florida) whose reform included a time limit for welfare receipt. A key question for future research, therefore, is whether impacts on children grow as families reach time limits.

⁵ Generally, adult impacts were larger for new applicants than for clients in ongoing cases, and larger for clients with no recent work history than for clients who had worked just before random assignment.

⁶ The studies include three of the states (Connecticut, Minnesota, and Florida) in the Project on State-Level Child Outcomes, the Canadian Self-Sufficiency Project, the National Evaluation of Welfare-to-Work Strategies, and the New Hope project. Morris *et al.* (2001) synthesizes the results of most of these studies.

⁷ See Brooks, Hair, and Zaslow (2001).

1.2 Policy Differences Captured by the Random Assignment Design

The impacts presented in this report are the differences in outcomes between the Welfare Reform group and the Traditional Welfare group. Because random assignment ensures that the two groups are, on average, alike in all respects, any significant differences in outcomes can be attributed to the different policies applied to the two groups. The Welfare Reform group, for example, had higher rates of participation in mandatory employment and training activities and higher sanction rates than the Traditional Welfare group. The Welfare Reform group was also subject to time limits on TANF receipt for adults and a family cap policy that restricted TANF grant amounts.

Exhibit 1.2 lists the specific policy differences (Indiana Welfare Reform Policy versus AFDC Policy) that are responsible for the impacts presented in this report. The column titled “Indiana Welfare Reform Policy” shows the policies that applied to the Welfare Reform group, and the column titled “AFDC Policy” shows the policies that applied to the Traditional Welfare group.

For families that enrolled in Indiana’s welfare reform program during its first year (the subject of this report), the policy environment changed somewhat over time. Initially, between May 1995 and May 1997, most of the program’s welfare reform policies applied only to the most job-ready clients, who were assigned to a “Placement Track.” These clients were identified through the use of a standardized client assessment and comprised about one-fourth of the adults in the Welfare Reform group. Effective June 1997, Indiana made all work-mandatory clients subject to Placement Track policies and narrowed the exemption from work requirements. These changes more than doubled the proportion of the caseload subject to the full set of welfare reform policies. However, the policies applying to clients randomly assigned to the Traditional Welfare group have not changed since the program began in May 1995.

What follows is a description of individual welfare reform policies as they applied to the first-year cohort.

Exhibit 1.2
Indiana Welfare Reform Policies, Compared With AFDC Policies

<i>Policy Area</i>	<i>Indiana Welfare Reform Policy</i>	<i>AFDC Policy</i>
Amount of earned income disregarded in calculating cash grant	Traditional AFDC disregard, as at right. “Fixed grant” for Placement Track clients: after reducing the TANF grant based on initial earnings, the TANF grant was fixed at that level.	Traditional AFDC disregard: \$120 and one-third of the remainder for 4 months. \$120 for the next 8 months. \$90 in subsequent months.
Income eligibility ceiling for recipients	“Zero grant” policy: retain TANF (and thereby Medicaid) eligibility as long as income is below the federal poverty level. Cash grant goes to zero, however, when countable income exceeds the maximum cash grant (e.g., the cash grant for a one-parent family of three goes to zero when earnings are greater than or equal to \$378 per month). Zero grant policy applied only to Placement Track clients until June 1997, when it was extended to all clients.	Retain eligibility only if countable income (gross income minus certain deductions) is less than the maximum cash grant (e.g., a one-parent family of three retains eligibility only if earnings are less than \$378 per month).
Exemptions from work requirements for parents with young children	Until June 1997, parents were exempt if caring for a child under age 3. Lowered to age 2 in June 1997, and to age 1 in December 1997.	Parent exempt if caring for a child under age 3.
Work participation: rates, activities, and required hours	Work requirement increased from 20 to 25 hours per week in June 1997. Primary activities are unsubsidized employment and job search.	Low work participation rates. For unemployed adults, the main employment and training activities before welfare reform were vocational training and education. Hours of participation were not strictly monitored.
Sanctions for noncompliance with work requirements	Grant is reduced by adult’s portion (\$90 per month) for 2, 12, or 36 months, depending on whether first, second, or third sanction. No full-family sanctions.	Rarely enforced.
Time limit	24-month lifetime limit for eligible adults; benefits continue indefinitely for children. Time limit applied only to Placement Track clients until June 1997, when it was extended to all clients. Federal 5-year time limit not in effect (due to waiver inconsistency).	None
Family cap	No increase in grant for a child born 10 months or more after family begins receiving TANF (if child is conceived while mother is receiving TANF).	None
Personal Responsibility Agreement (PRA)	Parents must ensure that preschool children are immunized and that school-age children attend school regularly. PRAs also include several other provisions.	None
Sanctions for noncompliance with PRA	Sanction is generally \$90 per month until compliance.	None

Work requirements and sanctions. The majority of adults on TANF are required to participate in work activities (primarily working or looking for employment). The exemption from work requirements to care for a young child initially applied to parents with children under 3 years old and was narrowed in December 1997 to apply only to parents with children younger than age 1. Most clients met the work participation requirements by working. For those not working, the main work activity was job search.

Compared to most states, Indiana has a mild sanction policy for noncompliance with work requirements. For the first violation, the TANF grant is reduced by the adult's portion (\$90 per month) for 2 months; for the second and third violations, it is reduced (by the same amount) for 12 and 36 months, respectively.⁸ Indiana's sanction is milder than most states' sanctions in two respects: it has no full-family sanction (most states do), and the sanction amount never exceeds \$90 per month.

Adults randomly assigned to the Traditional Welfare group generally are not required to participate in work activities.

Time limit. Indiana has a 24-month lifetime limit on TANF receipt for adults who are required to participate in work activities. The time limit affects only adults' portion of the grant; children can continue to receive assistance.

Initially, Indiana defined the number of months an adult was receiving TANF as the number of calendar months that elapsed after an individual was assigned to the Placement Track. That is, the "clock" started running immediately upon assignment to the Placement Track and did not stop, regardless of the number of months the client was on welfare during the 24-month period. Upon reaching the time limit, the adult's portion of the grant was eliminated for 36 months (although the adult retained eligibility for Medicaid).

In June 1997, Indiana expanded the time limit to apply to all mandatory clients, not just those assigned to the Placement Track, and changed the calculation of the time limit by counting

⁸ A separate \$90-per-month sanction is imposed for 6 months on adults who quit their jobs.

only months in which a client *received* TANF benefits. In addition, the time limit became a *lifetime* limit, so adults could no longer resume TANF eligibility after 36 months.

Indiana has chosen not to implement the federal 5-year time limit, at least until its federal waiver expires in 2002.⁹

Clients in the Traditional Welfare group are not subject to a time limit.

Family cap and personal responsibility requirements. Like many states, Indiana requires all eligible adult TANF recipients to sign a Personal Responsibility Agreement (PRA) that includes a number of provisions. The most important provision, in terms of the number of families affected, is the family cap policy: No additional TANF benefits are paid for children who are born more than 10 months after a family begins receiving TANF. Other PRA policies require that:

- Preschool children be immunized;
- School-age children attend school regularly;
- Parents raise children in a safe and secure home; and
- Parents not use illegal drugs.

The sanction for noncompliance with a PRA requirement is a \$90 per month reduction in TANF benefits until compliance.

Traditional Welfare group members are subject to neither the family cap policy nor other PRA requirements.

1.3 Summary of Impacts on Adult Outcomes (Based on Administrative Records)

Although the results presented in this report are based exclusively on the in-home survey of 1,679 families (described earlier), other reports in this evaluation include estimated impacts

⁹ Prior to the 1996 federal welfare reform law, states could implement welfare reform policies if they received a waiver of the AFDC law from the U.S. Department of Health and Human Services. Under the federal welfare reform law, states are allowed to continue preexisting waivers, even if they are inconsistent with the federal law. Such “waiver inconsistencies” are limited to the duration of the waiver. Indiana’s waiver expired in April 2002.

on adult outcomes for a much larger sample based on data from State administrative records. A forthcoming report will present impacts over 5 years for this larger sample, which includes all 66,440 single-parent families who enrolled in Indiana’s welfare reform program during its first year. Despite the different data sources and sample, the pattern of adult impacts based on administrative records data is similar to the pattern revealed in the survey results.

Key findings from the analysis of administrative data. For the full sample of 66,440 single-parent families enrolled in Indiana’s welfare reform program during its first year, the program substantially reduced clients’ reliance on welfare and increased employment and earnings. In the fourth year of follow-up, for example, average TANF payments for Welfare Reform group members were 34 percent lower than those for Traditional Welfare group members. Although the impacts were smaller than those on TANF receipt, the program also increased employment and earnings. Over 4 years of follow-up, average earnings for the Welfare Reform group were 9 percent higher than earnings for the Traditional Welfare group. These impacts were widespread and not confined to particular subgroups. Earnings and employment impacts, however, were larger for two subgroups: clients with no recent work history (as of random assignment) and new applicants.

Although administrative data confirm that Indiana’s welfare reform program led many recipients to replace TANF payments with a paycheck, they show no program impact on recipients’ average income, which includes earnings, TANF payments, and food stamps. This is because higher earnings for many clients were offset by lower TANF and food stamp payments. The analysis of administrative data showed no evidence of income impacts for any of the single-parent subgroups examined.¹⁰

The size and pattern of impacts resulting from Indiana’s program are similar to results from other recent random assignment welfare reform evaluations. Indiana’s impacts on TANF receipt are somewhat larger than those found in several other states, probably because, unlike the other states, Indiana did not significantly change its TANF earnings disregard until July

¹⁰ The program, however, did produce positive impacts on income for two-parent families, which account for only about 5 percent of Indiana’s TANF caseload.

2000, late in the follow-up period. Indiana's impacts on employment and earnings are roughly in the middle of the range of impacts found in other states.

Comparing results from administrative records with results of the child survey. The findings from the child survey are consistent with the findings based on administrative records data. As detailed in Chapter 3 of this report, the survey data show modest increases in employment, sizeable decreases in TANF payments, and no significant impact on total income. The similarity in findings from the two data sources is consistent with the fact that the survey sample is a subset of the administrative data sample. The similarity in findings also provides some confidence in the validity of the survey results and the representativeness of the respondents.

What do the findings on adult impacts imply for expected effects on children? The lack of impact on family income and modest impacts on adult employment suggest that effects on children are unlikely to be large. The findings on adult impacts also suggest that, if impacts on children do exist, they may result from changes in family circumstances as mothers work more and not from changes in income.

1.4 Overview of Remaining Chapters

Chapter 2. This chapter describes the research methods used to evaluate impacts on children's well-being resulting from Indiana's welfare reform program. The chapter describes the survey sample, discusses response rates and adjustments for non-response, and details the survey's statistical approach to estimating impacts, statistical significance, and effect sizes.

Chapter 3. This chapter presents impacts on economic outcomes, including income (by source), employment, material hardship, educational attainment, and families' use of various health and human services.

Chapter 4. Chapter 4 is the chapter of primary interest for this report because it shows how Indiana's welfare reform program has affected direct measures of children's well-being,

including educational performance, social and emotional adjustment, and health and safety. Impacts are presented for elementary school-age and adolescent children.

Chapter 5. The report's final chapter presents impacts on a variety of outcomes concerning the home environment, parenting practices, and child care arrangements. These are not direct measures of children's well-being, but can be thought of as intermediate outcomes. Impacts on these outcomes can lead to impacts on direct measures of children's well-being.

Chapter 2

Research Methods

This chapter describes the survey sample selected and the research methods used to measure, calculate, and report the impacts of Indiana’s welfare reform program on children and families. The first section of the chapter describes the sample of families on which this report is based and identifies subgroups of interest. Section 2.2 describes the response rates and adjustments for non-response. Section 2.3 presents the baseline characteristics of survey respondents. The final section of the chapter details the analytic approach to estimating program impacts, statistical significance, and effect sizes.

2.1 Sample for the Child Report

The findings in this report are based on a statewide survey of 1,679 families. These families are representative of all single-parent families who entered Indiana’s welfare reform program during its first year and who had a child between 5 and 12 years of age at the time of the survey.¹

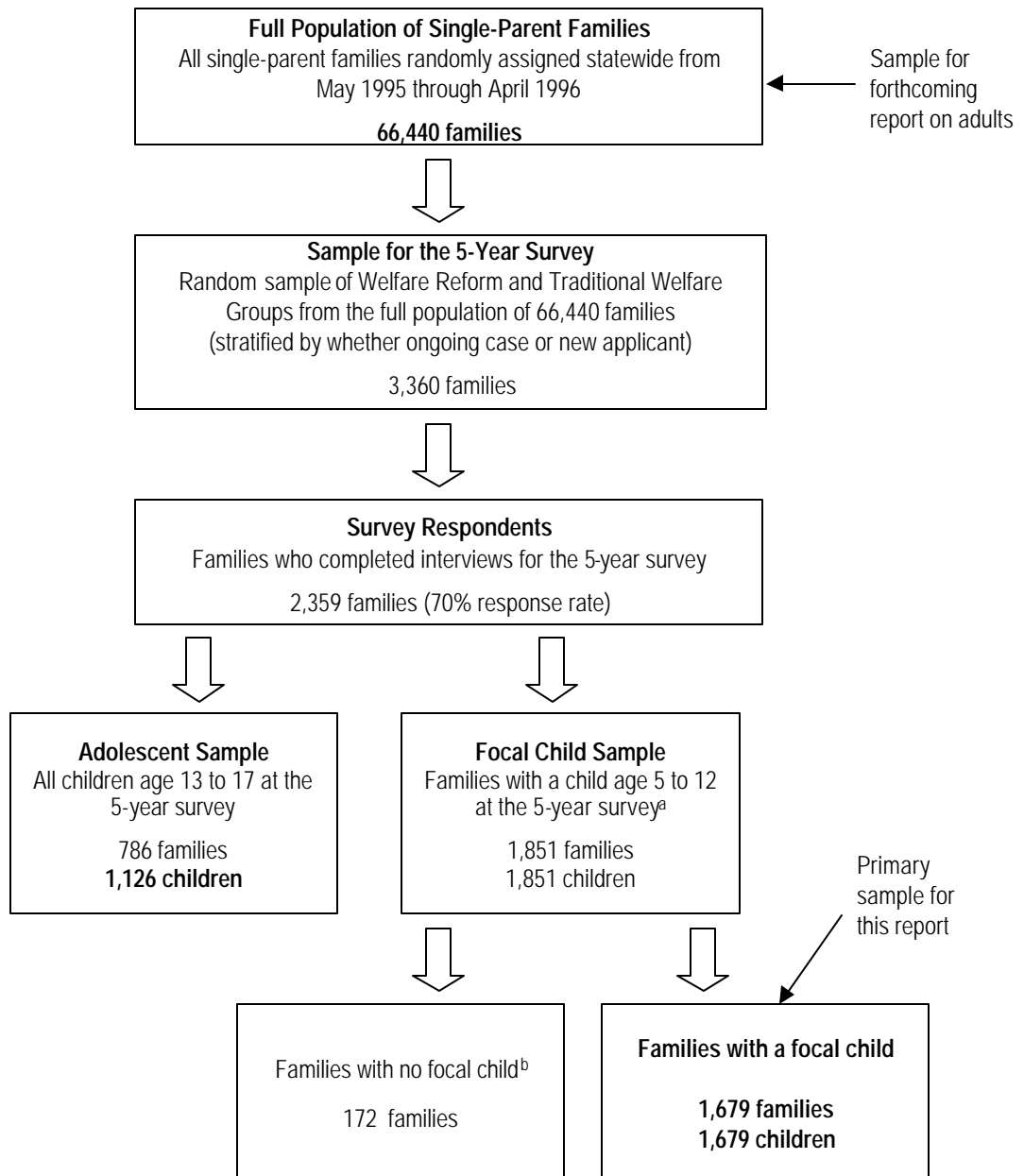
Selecting the sample. Exhibit 2.1 shows how the sample for this report was selected. The starting point was the full statewide population of 66,440 single-parent families who received welfare during the first year of Indiana’s program, between May 1995 and April 1996.² From this population we selected a random sample of 3,360 families for the 5-year survey. The survey sample was divided evenly between the Welfare Reform and the Traditional Welfare groups. The survey sample was also stratified to ensure that the ratio of ongoing to applicant families within the Welfare Reform and the Traditional Welfare groups would be the same as in the full population of 66,440 families.³ The sample for the 5-year survey is representative of the full statewide population of 66,440 single-parent families who received welfare during the first year of Indiana’s welfare reform program.

¹ The evaluation excludes child-only families—that is, families with no adult eligible for TANF at the time of random assignment—because most welfare reform policies did not apply to these families.

² A forthcoming report will present impacts on adults for the full population of 66,440 families.

³ It was necessary to stratify the random sample because Indiana used different random assignment ratios for ongoing families—defined as those receiving welfare in May 1995—and applicant families—those who began receiving welfare after May 1995.

Exhibit 2.1
Sample Size for This Report and Its Relationship to the Full Sample for
the Indiana Welfare Reform Evaluation



Notes:

^a In families with more than one child age 5 to 12, one child was randomly selected as the focal child.

^b Of the 172 families in the focal child sample who were excluded from the analysis of focal children, 145 had a focal child whose date of birth did not match administrative records, 24 had a focal child outside the target age range, and 3 had a focal child living elsewhere and not in contact with the survey respondent.

We completed interviews with 2,359 sample members, representing 70 percent of the 5-year survey sample of 3,360 families. Of the 2,359 respondents, 1,851 were part of a “focal child” sub-sample. The focal child sub-sample was made up of all families who (according to FSSA administrative records) had a child between 5 and 12 years old at the time of the survey.⁴

Of the 1,851 respondents in the focal child sample, 172 were excluded from the analysis because we could not verify that the focal child lived with the respondent at the time the interview was conducted. In most cases, this was because the survey respondent refused to provide a date of birth for the focal child that could be matched against administrative records. The remaining 1,679 families in the focal child sample (each with one focal child) are the primary sample for this report.⁵ The focal child sample is representative of all single-parent families receiving welfare during the first year of Indiana’s program who had a child between 5 and 12 years old at the time of the survey. (Approximately three-fourths of the population of 66,440 families met this criterion.)

The adolescent sample. This report also presents impact estimates for a sample of adolescent children. The adolescent sample includes all families in the full survey sample of 2,359 respondents who had a child between 13 and 17 years old at the time of the survey. Unlike the analysis of the focal child sample, which is based on one child per family, the analysis of the adolescent sample includes all adolescents in families with an adolescent. The resulting sample includes 1,126 children in 786 families.⁶ The sample of adolescents is representative of all adolescents in single-parent families receiving welfare during the first year of Indiana’s program.

Subgroups. In addition to presenting impacts on all families, this report includes impacts on subgroups defined by child’s gender, mother’s history of welfare receipt, and mother’s employment history at the time of random assignment. Specifically, the report compares impacts

⁴ The total sample size of 3,360 is the sum of the focal child sub-sample (2,644 families) and the sub-sample of families with no child in the 5 to 12 age range (716 families). The response rate was 70 percent for the focal child sub-sample (1,851 of 2,644) and 71 percent for the other sub-sample (508 of 716).

⁵ For families with more than one child age 5 to 12, one child was randomly selected as the focal child.

⁶ The standard errors of the impact estimates take into account the clustering of adolescents within families.

for ongoing recipients—defined as clients receiving welfare in May 1995, the month Indiana began its welfare reform program—and applicants, defined as clients who began receiving welfare in any month after May 1995 (June 1995 to April 1996). The report also compares impacts for clients according to three levels of work history: clients who were employed in zero, one to three, or four to five of the five quarters preceding random assignment. Previous analyses of Indiana’s program have shown that adult impacts vary across these subgroups. In addition, these subgroups may serve as proxies for different levels of disadvantage. Welfare reform’s impacts on children may differ for families who are relatively more or less disadvantaged.

Data collection. With the exception of this chapter’s exhibit showing baseline characteristics from administrative data, the results in this report are based on responses to the in-home child survey. The survey covered the family’s financial status, home environment, parenting practices, and a broad array of child outcomes. Researchers interviewed the adult who headed the family’s TANF case, almost always the mother of the focal child. Interviews were conducted using computer-assisted personal interviewing (CAPI) software. Especially sensitive questions, however, such as those relating to domestic abuse or maternal depression, were asked by having the respondent fill in a paper, self-administered questionnaire on his or her own. The median length of the interview was approximately 2 hours.

Follow-up interval. The survey was administered between March and November 2000. Because nearly two-thirds of respondents were randomly assigned in May 1995, and the remainder between June 1995 and April 1996, the average length of time that elapsed between random assignment and the interview date was 60 months. The relatively long follow-up interval is advantageous because it provides more opportunity for any impacts of welfare reform to materialize.

2.2 Response Rates and Adjustments for Non-Response

The response rate for the child survey, calculated by dividing the number of completed interviews by the total sample size, was 70 percent. The response rate was slightly lower for Welfare Reform group members than for Traditional Welfare group members, a difference that was statistically significant at the 10-percent level.

Survey respondents were compared with non-respondents to determine differences between the two groups. To the extent that survey *respondents* differ from the survey *sample*, the results may not be representative of all single-parent families with focal children. For most characteristics examined, we found no significant differences between respondents and non-respondents. The chief differences were in race (respondents were more likely than non-respondents to be black) and geography (respondents were more likely than non-respondents to be from Marion County).

Based on the comparison of characteristics for respondents and non-respondents, we constructed weights to adjust for non-response. The weights were created, in particular, to equalize response rates across cells defined by random assignment status (Welfare Reform or Traditional Welfare); race/ethnicity (white, black, or other); and geography (Marion County, Lake County, or remainder of the State).

2.3 Baseline Characteristics of the Sample

Exhibit 2.2 presents characteristics at the time of random assignment for respondents to the child survey. Nearly all of the survey respondents are women, and most are white. The median age at the time of random assignment was 25 (implying that median age at the time of the survey was about 30), and most of the women had first given birth as teens. Respondents had an average of two children, with one of those 3 years old or younger. Most respondents were either currently or formerly married. Most respondents also had a high school degree or GED and had worked during the five quarters preceding random assignment.

A sizeable proportion of respondents had characteristics suggesting relatively large barriers to self-sufficiency, including no high school credential (42 percent), no recent work experience as of random assignment (38 percent), and no experience with marriage (44 percent).

Exhibit 2.2
Selected Baseline Characteristics of Welfare Reform and Traditional Welfare
Group Respondents at the Time of Random Assignment
for Families of Focal Children

Outcome	Welfare Reform Group	Traditional Welfare Group	All Families
Participant Age			
Under 25 years (%)	49.8	46.3	48.0
25 to 34 years (%)	40.3	45.1	42.7
35+ years (%)	10.0	8.7	9.3
Nonwhite** (%)	42.1	47.1	44.7
Female (%)	98.7	98.5	98.6
Age at First Birth			
Under 20 years (%)	69.3	68.2	68.8
Average Number of Children	2.0	2.0	2.0
Age of Respondent's Youngest Child			
Under 3 years (%)	60.2	56.8	58.5
3 to 5 years (%)	30.2	33.3	31.8
6 to 12 years (%)	9.6	9.9	9.8
13 years or older (%)	0.0	0.0	0.0
Marital Status			
Never married (%)	41.9	45.6	43.8
Separated (%)	10.6	10.4	10.5
Divorced or widowed (%)	24.3	20.8	22.5
Married and living with spouse (%)	23.2	23.2	23.2
Years of Education			
Less than 10 (%)	13.2	17.0	15.1
10 to 11 (%)	31.5	33.1	32.3
12 (%)	43.1	38.9	41.0
More than 12 (%)	12.2	11.0	11.6
High School Degree or GED* (%)	60.3	56.1	58.2
Quarters Worked, in the 5 Quarters			
Preceding Random Assignment			
None (%)	37.6	39.0	38.3
1 to 3 (%)	35.1	36.5	35.8
4 to 5 (%)	27.2	24.6	25.9
Welfare Status at Random Assignment			
Applicant (%)	33.8	34.6	34.2
Ongoing client (%)	66.2	65.5	65.8
Sample size	819	860	1,679

Source: Abt Associates Inc. tabulations from Indiana administrative records.

Note: The statistical significance of differences between the groups is determined via chi-square test in the case of categorical values and via two-sided t-test in the case of continuous variables or simple proportions. Significance levels are indicated as: * = 10 percent, ** = 5 percent, and *** = 1 percent.

Exhibit 22 also shows that respondents in the Welfare Reform and Traditional Welfare groups had similar characteristics at the time of random assignment. The two exceptions are that Welfare Reform group respondents were more likely to be white, and more likely to have a high school credential. Given the number of characteristics examined, however, these two differences are about what would be expected by chance. In the impact analyses for both the focal child and the adolescent child samples, we used statistical methods to adjust for differences at baseline. These methods are discussed in the section that follows.

2.4 Assessing Impacts of Indiana’s Welfare Reform

This section describes the methodology used to estimate impacts for this report.

Model for Assessing Group Differences

Participants in Indiana’s welfare reform program were randomly assigned to either the Welfare Reform group or the Traditional Welfare group. Random assignment means the two groups are expected to have the same characteristics on average, so that any differences between the groups at the time of the follow-up survey can be attributed to Indiana’s program. Nonetheless, in any experiment it is possible (and even likely) that some differences between the groups will exist at baseline (that is, at the time of random assignment). In estimating program impacts, we used regression models to adjust for such baseline differences, providing more accurate impact estimates.

The program *impact* is the difference in the (regression-adjusted) average outcomes of the Welfare Reform and the Traditional Welfare groups. The magnitude of program impacts is tested for *statistical significance* to determine whether program differences likely result from chance or indicate a true program impact. Welfare Reform and Traditional Welfare group differences are also expressed (see Chapters 4 and 5) in terms of *effect sizes*, which are computed by dividing the program impact by the standard deviation of the outcome. The effect sizes presented in the exhibits show the absolute value of the effect size associated with each impact. Effect sizes provide a standardized measure of program impact that can be used to compare outcomes measured on very different scales. A larger effect size (in absolute value) indicates a larger program impact, and a smaller value indicates a smaller effect.

There is no objective scale by which to determine whether an effect size is large or small. The convention in the field was established by Cohen (1988), who set criteria of 0.2, 0.5, and 0.8 as indicating small, medium, and large effects, respectively. In a meta-analysis of meta-analyses examining the distribution of effect sizes across many studies in different fields of the social sciences, Lipsey (1990) reached a similar conclusion. More recently, other researchers have suggested that a different set of standards may be appropriate for randomized studies and, in particular, that smaller effect sizes may be meaningful in a random assignment design.⁷ The importance of a particular program impact depends not just on the effect size, but also on the importance of the outcome itself. For example, a program impact on teen birth rates may be more important than a program impact on visits to the dentist, even if the effect size is larger for the latter outcome than the former.

Statistical Methods

As mentioned above, the means of the outcomes for the Welfare Reform and Traditional Welfare groups are regression adjusted. Outcomes were adjusted using the following baseline characteristics: age; gender; ethnicity; education; county of residence (Lake, Marion, or other); number and age of children; family size; marital status; employment status and earnings prior to random assignment; begin date of respondents' most recent welfare spell; and whether or not respondents were required to participate in work activities.

Each observation is assigned a sampling weight, and the data are stratified by Welfare Reform versus Traditional Welfare group status and by applicant versus ongoing recipient status. The impact estimates take into account this stratification.

Impact estimates are obtained by including a dichotomous indicator for assignment to the Welfare Reform Group in the multivariate model described above. In this framework, the relationships between the covariates and the outcome measure are set to be identical for the Welfare Reform and the Traditional Welfare groups, and the impact measure is given by the coefficient on the dichotomous indicator. Differences across subgroups of the main sample,

⁷ The authors of a report on the evaluation of the Canadian Self-Sufficiency Project (SSP) suggest that "While benchmarks of 0.1, 0.3, and 0.5 may be reasonable for nonexperimental research, 0.1, 0.2, and 0.3 may be more reasonable estimates of small, medium, and large effects for an experimental evaluation like SSP" (Morris and Michalopoulos, 2000, p. 33).

such as previous participation in the welfare program or employment status prior to random assignment, are computed similarly, using interactions between indicators for subgroup status prior to random assignment and indicators for Welfare Reform and Traditional Welfare group status.

Welfare Reform and Traditional Welfare group differences at the 10-percent level are considered statistically significant, and significance levels are indicated at the 1-, 5-, and 10-percent levels. P values—which indicate the probability that the estimated impact occurred by chance—are also shown in the tables. The statistical analyses were based on two-tailed tests, because for most outcomes there was no clear hypothesis about whether impacts would be positive or negative.

This report also presents analyses of child-level outcomes for *all* adolescents in the families that were interviewed. Unlike the analysis described above, however, observations at the child level are not necessarily independent of one another, because children in the same family are subject to many of the same unobservable influences (that is, family-specific effects). The impact estimates account for such clustering at the family level.

Chapter 3

Impacts on Household Income and Material Well-Being

If Indiana's welfare reform program affects children, it is likely to do so through its impacts on families' economic self-sufficiency. For example, by making families better off financially, welfare reform could lead to improvements in children's home environments or child care situations. Higher employment rates could improve parents' self-esteem and thereby lead to better parenting practices. Welfare reform's effects on families' financial and living situations are therefore important to understanding the impacts on children presented in the next two chapters.

This chapter presents impacts on economic outcomes for the 1,679 survey respondents with focal children (i.e., children between the ages of 5 and 12 at the time of the survey). These outcomes include changes in employment and earnings, total household income, income by source, measures of material hardship, and families' living arrangements.

Summary of Key Findings

Indiana's welfare reform program increased employment. At the time of the survey, the employment rate for Welfare Reform group respondents was approximately 5 percentage points higher than that for Traditional Welfare group respondents. Although the survey showed no impact on earnings, data from administrative records (UI quarterly wage files) showed a sizeable positive impact on earnings for families with focal children.

Welfare reform did not affect total income. It did, however, affect the sources of income, reducing respondents' income from TANF and food stamps. Welfare reform caused substantial reductions in families' income from TANF and smaller decreases in income from food stamps. Because these reductions were offset, in part, by increases in other sources of income, no impact on total income resulted.

Welfare reform did not have clear effects on families' material well-being. Welfare Reform group members were less likely than Traditional Welfare group members to receive government help with utility payments or prescription drug payments. These impacts could possibly indicate less financial hardship for members of the Welfare Reform group. Alternatively, however, the impacts might simply reflect less willingness among eligible families in the Welfare Reform group to apply for heating assistance programs and Medicaid. One indication that Indiana's program did not reduce material hardship is that Welfare Reform group members were more likely than Traditional Welfare group members to report having been hungry at some point in the previous 12 months.

Indiana's program had no impacts on family structure. The study found no statistically significant impacts on marital status, living arrangements, or fertility.

The remainder of this chapter presents impacts on a range of economic outcomes. The first section examines impacts on employment and income, including sources of income. Section 3.2 presents impacts on indicators of material hardship and financial strain. Section 3.3 looks at impacts on family structure, including marriage and fertility. The final section discusses impacts for subgroups of survey respondents.

3.1 Impacts on Employment, TANF Receipt, and Income

Indiana's welfare reform program significantly increased employment rates for families with focal children. At the time of the survey, 58 percent of Welfare Reform group members were employed, close to 5 percentage points higher than the employment rate for members of the Traditional Welfare group (see Exhibit 3.1). The employment rate for the Welfare Reform group is similar to rates found in comparable studies in other states.

Although approximately 40 percent of respondents in the Welfare Reform group were not employed at the time of the survey, close to half of the unemployed respondents lived in households in which another adult was working. Therefore, three-fourths of the respondents in the Welfare Reform group were living in a household in which at least one adult was employed.¹

¹ See Exhibit 3.2, which shows that 74 percent of respondent households in the Welfare Reform group received some income from earnings in the month before the survey.

Exhibit 3.1
Impacts on Employment, TANF Receipt, and Income for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact
Employment and Earnings			
Employed at the time of the survey (%)	58.4	53.7	4.7**
Respondent earnings in the month before the survey, annualized	\$8,140	\$8,040	\$100
TANF Receipt			
Receiving TANF at the time of the survey (%)	22.8	28.8	-6.0 ***
Amount received from TANF in the month before the survey, annualized	\$685	\$1,082	-\$396 ***
Income			
Total household income in the month before the survey, annualized	\$19,923	\$20,390	-\$467
Income as a percent of Federal Poverty Line			
Percent of families with annual income:			
Less than 50% of poverty line	23.9	27.6	-3.7 *
50-99% of poverty line	34.4	32.5	1.9
100-149% of poverty line	25.5	22.2	3.3
150-199% of poverty line	8.9	8.7	0.3
200% or more of poverty line	7.4	9.0	-1.7
Sample size (total = 1,679)	819	860	

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, and *** = 1 percent.

Despite welfare reform's positive impact on employment, the study found no statistically significant impact on respondents' earnings (Exhibit 3.1). Respondents in both the Welfare Reform and the Traditional Welfare groups reported earnings of just over \$8,000 on an annual basis.²

Welfare reform reduced TANF receipt and payments considerably. At the time of the survey, on average 5 years after random assignment, 23 percent of the Welfare Reform group was still receiving TANF, compared with 29 percent of the Traditional Welfare group (Exhibit 3.1). The impact on TANF payments was larger (proportionately) than the impact on TANF receipt, with members of the Welfare Reform group receiving about \$400 (approximately 37 percent) less per year in TANF payments than members of the Traditional Welfare group at the time of the survey.

Although it had positive impacts on employment, welfare reform did not increase total household income. Average annual household income was about \$470 lower for members of the Welfare Reform group than for members of the Traditional Welfare group, a difference that was not statistically significant (Exhibit 3.1).

Average household income was approximately \$20,000 per year for both groups at the time of the survey, which is above the Federal poverty line for a family of four. Most families, however, were below the poverty line. The apparent discrepancy results because the distribution of income is skewed; a small proportion of families with high incomes pull up the average. At the time of the survey, about 60 percent of respondents had household incomes below the poverty line (Exhibit 3.1, bottom panel, sum of first two rows).³

The bottom panel of Exhibit 3.1 also shows a small beneficial impact that welfare reform has had on the distribution of income. Welfare reform reduced the proportion of families in the lowest

² In contrast to the survey data, UI quarterly wage data for survey respondents show a positive and statistically significant impact on earnings for the calendar quarter in which the survey interview took place. The lack of impacts on average earnings in the survey data results from differences between the Welfare Reform and Traditional Welfare groups in the highest percentiles of the earnings distribution. The survey data revealed a positive and statistically significant impact on *median* earnings.

³ Total household income includes income from all adults, except when that income was not used to help support the respondent or her children.

income category (those with incomes below 50 percent of the poverty line). This result may be due to an increase in employment among adults in the most disadvantaged families.

Exhibit 3.2 shows the sources of total household income, both in dollars and in percentage terms. Welfare reform had two statistically significant impacts on sources of income in dollars: a reduction in TANF payments (-\$396) and a reduction in food stamp payments (-\$198). In percentage terms, welfare reform significantly reduced the proportion of households receiving TANF (Exhibit 3.2 bottom panel). It also led to an increase in the proportion of households receiving the Earned Income Tax Credit, reflecting the higher employment rate caused by welfare reform.

In addition to revealing the impacts of welfare reform, Exhibit 3.2 indicates the primary sources of income for survey respondents. On average, respondents' earnings dwarf all other sources of income combined. Three out of four households in the Welfare Reform group were receiving income from earnings (either from the respondent or another household member), and earnings accounted for about \$14,000 of the \$20,000 in average total income for such households. In contrast, the second largest source of income (food stamps) accounted for only about \$1,500 per year. TANF was the sixth largest source of income in dollar terms, not surprising given the low receipt rates and low benefit payments. Most of these clients had clearly replaced public assistance with earnings.

3.2 Impacts on Material Hardship

In addition to measuring total income, the survey included several measures of material hardship, as another way to determine whether welfare reform made some families better or worse off financially. An overall measure of material hardship was based on responses to four survey questions about money worries and sufficiency of financial resources. An overall measure of financial strain was computed using a seven-item scale taken from the Survey of Income and Program Participation, which asked respondents about problems paying for essentials such as rent and utilities. The survey also included five questions about the adequacy of food in the household, taken from a U.S. Department of Agriculture scale designed to measure food security.⁴

⁴ See, for example, Nord *et al.* (2002).

Exhibit 3.2
Impacts on Sources of Income for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact
Total Household Income ^¾ month before the survey, annualized	\$19,923	\$20,390	-\$467
Income by Source, Annualized			
Earnings (all household members)	\$14,048	\$13,968	\$80
Food stamps	\$1,540	\$1,738	-\$198**
SSI	\$1,168	\$1,059	\$110
EITC	\$1,071	\$979	\$92
Child support	\$1,028	\$1,063	-\$35
TANF or Township trustee assistance	\$685	\$1,082	-\$396***
Family or friends	\$202	\$267	-\$65
Other sources	\$180	\$234	-\$53
Percent Receiving Income from:			
Earnings (all household members)	74.0	70.8	3.2
Food stamps	45.7	48.4	-2.7
SSI	16.7	15.6	1.1
EITC	66.1	58.7	7.4***
Child support	28.2	29.3	-1.1
TANF/Township trustee assistance	23.1	30.6	-7.5***
Family/friends	11.6	11.9	-0.3
Other sources	2.3	3.8	-1.5*
Sample size (total = 1,679)	819	860	

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed ttest was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, and *** = 1 percent.

Indiana's program had no impacts on the overall measures of material hardship and financial strain (Exhibit 3.3, top panel). Although the study found no impacts on these measures, it did reveal hardship among a sizeable proportion of respondents, unrelated to welfare reform. More than one of three respondents said they usually did not have enough money to make ends meet, and half said they had borrowed money to pay bills within the 12 months preceding the survey.

Based on the food security measure, welfare reform apparently increased the proportion of families experiencing hunger, as defined by the U.S. Department of Agriculture (Exhibit 3.3, middle panel). Eleven percent of Welfare Reform group families met the criteria for being food insecure with hunger, compared with 8 percent of Traditional Welfare group families, a statistically significant difference.

Indiana's program decreased the proportion of families who received help to pay for utilities or prescription drugs. These impacts could be due to Welfare Reform group respondents' lower rates of participation in energy assistance and Medicaid programs. They may mean that respondents were less likely to participate in other assistance programs after leaving TANF. Alternatively, the impacts could reflect less need for assistance because of welfare reform. The study found no significant impacts on other sources of financial assistance.

Overall, the results in Exhibit 3.3 show no clear evidence that welfare reform had an effect—either positive or negative—on material hardship or financial strain. The results do show, however, that a sizeable proportion of surveyed families are in precarious financial situations, independent of welfare reform. In addition to the indicators discussed above, close to 40 percent of families met the definition of being food insecure (with or without hunger), and one in five families had used food banks in the 12 months preceding the survey.

3.3 Impacts on Family Structure

Welfare reform had no statistically significant impacts on survey measures of family structure, including respondents' marital status, living situations, fertility behavior, or housing status (Exhibit 3.4). The lack of impacts on these outcomes is consistent with welfare reform's limited effects on income and other financial outcomes.

Exhibit 3.3

Impacts on Material Hardship and Financial Strain for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact
Material Hardship and Financial Strain			
Material Hardship scale ^a	2.6	2.6	0.0
SIPP Financial Strain scale ^b	1.8	1.9	0.0
Usually not enough money to make ends meet (%)	36.9	38.5	-1.6
Borrowed money to pay bills—past 12 months (%)	53.0	49.6	3.4
Food Security (USDA Scale)^c			
Food secure (%)	60.8	64.5	-3.8
Food insecure without hunger (%)	28.1	27.2	1.0
Food insecure with hunger (%)	11.1	8.3	2.8*
Sources of Financial Assistance--past 12 months			
Received rental assistance (%)	9.9	11.4	-1.4
Received help paying utilities (%)	22.8	26.8	-4.1*
Used food banks (%)	21.5	23.5	-1.9
Used soup kitchens (%)	2.6	3.5	-0.9
Received help paying for prescription drugs (%)	6.2	8.7	-2.5**
Used places that sell second-hand clothes (%)	35.5	35.7	-0.2
Homelessness			
Ever homeless in previous 2 years (%)	3.2	2.7	0.5
Sample size (total = 1,679)	819	860	

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Notes: A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as:
* = 10 percent, ** = 5 percent, *** = 1 percent.

- a Material Hardship Scale = 4 items each rated on a 4-point scale from strongly agree to strongly disagree: my financial situation is better than it has been in a long time; I worry about having enough money in the future; I can generally afford to buy things we need; and there never seems to be enough money to buy something or go somewhere just for fun. Responses were coded so that a higher total score indicates greater hardship.
- b SIPP Financial Strain Scale = 7 items, each rated on a 0/1 scale: did not pay full amount of mortgage; was evicted from home for not paying the rent or mortgage; did not pay the full amount of the gas, oil, or electricity bills; had service turned off by the gas or electric company, or oil company would not deliver oil; had service disconnected by the telephone company because payments were not made; (2 items) had someone who needed a doctor (dentist) but couldn't go because there was not enough money.
- c The food security scale is based on five questions about the preceding 12 months: how often respondents cut the size of meals or skipped meals because there was not enough money for food; whether respondents ever ate less than they felt they should because there was not enough money to buy food; whether respondents were ever hungry but did not eat because they could not afford enough food; whether the food respondents bought did not last, and there was not money to get more; and whether respondents' families could not afford to eat balanced meals. Respondents were classified as: food secure (0 or 1 affirmative responses); food insecure without hunger (2 to 4 affirmative responses); or food insecure with hunger (5 affirmative responses).

Exhibit 3.4
Impacts on Family Structure for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact
Marital Status			
Never married (%)	43.5	44.1	-0.6
Married and living with spouse (%)	22.5	23.9	-1.4
Divorced (%)	22.0	19.9	2.1
Separated (%)	10.6	10.4	0.3
Widowed (%)	1.4	1.7	-0.3
Living Situation			
Living with no other adults (%)	49.0	46.9	2.0
Living with spouse (%)	22.5	23.9	-1.4
Living with partner (%)	15.4	15.1	0.3
Living with other adults (%)	13.1	14.1	-1.0
Total Household Size			
Number of adults, including respondent	1.6	1.6	0.0
Number of children	2.6	2.6	0.0
Total household size	4.2	4.3	0.0
Fertility			
Gave birth since random assignment (%)	38.1	40.4	-2.3
Currently pregnant (%)	4.2	4.4	-0.3
Housing Status			
Own home (%)	19.0	20.6	-1.5
Rent house or apartment (%)	66.9	65.1	1.8
Living with others (%)	12.5	11.8	0.6
Other housing arrangement (%)	1.6	2.5	-0.9
Sample size (total = 1,679)	819	860	

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Notes: A two-tailed t-test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

In addition to reporting impacts, Exhibit 3.4 provides some information about respondents' marital status and living situations. Close to one-fourth of the respondents were currently married, and more than half had ever been married. Approximately half of the respondents lived with no other adults, and the other half reported living with a spouse (23 percent), a partner (15 percent), or some other adult (13 percent). Average household size was just over four persons, of whom 2.6 were children. Close to 40 percent of the respondents had given birth to another child in the 5 years since random assignment. At the time of the survey, about one in five respondents owned their home.

3.4 Impacts on Subgroups

For the two types of subgroups examined (ongoing clients versus applicants and subgroups defined by prior work history), the study found few statistically significant differences in program impacts across subgroups. For ongoing clients compared to applicants, the only impact that differed across subgroups was the material hardship scale. Welfare reform produced a more favorable impact on material hardship for ongoing clients than for applicants (Exhibit 3.5). For subgroups defined according to work experience prior to random assignment, welfare reform had different impacts on food security and living situations (Exhibit 3.6). Indiana's program had more positive impacts on food security for clients with the least work history. This subgroup also experienced the largest positive impact on living with a partner and the largest negative impact on living with an adult other than a spouse or partner. In other words, for clients with the least work history, welfare reform increased their likelihood of living with a partner and decreased their likelihood of living with an adult other than a spouse or partner.

3.5 Conclusion

On most outcome measures, Indiana's welfare reform program had little or no impact on adults. The program increased rates of employment and decreased respondents' use of TANF and food stamps. However, it did not affect total household income, had few effects on material hardship, and had no impacts on family structure. The absence of large impacts on adults suggests that welfare reform's impacts on children are also unlikely to be large.

Exhibit 3.5
Impacts on Selected Economic and Family Structure Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Families of Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Employment and Earnings					
Employed at the time of the survey (%)	52.2	0.5	54.5	6.8**	
Respondent's earnings in the month before the survey, annualized	\$7,072	0	\$8,543	\$150	
TANF Receipt					
Receiving TANF at the time of the survey (%)	31.1	-5.2	27.7	-6.5**	
Amount received from TANF in the month before the survey, annualized	\$1,272	-\$310**	\$983	-\$440***	
Income					
Total household income in the month before the survey, annualized	\$19,494	-\$780	\$20,855	-\$309	
Material Hardship and Financial Strain					
Material Hardship scale ^d	2.6	-0.1**	2.6	0.0	†
Food Security (USDA Scale)					
Food secure (%)	1.3	0.0	1.4	0.2*	
Food insecure without hunger (%)	67.7	-2.4	62.9	-4.4	
Food insecure with hunger (%)	23.0	0.9	29.3	1.0	
	9.3	1.5	7.8	3.5**	
Marital Status					
Never married (%)	45.1	-0.5	43.6	-0.7	
Living Situation					
Living with no other adults (%)	41.8	4.0	49.6	0.1	
Living with spouse (%)	23.9	-0.4	23.9	-0.1	
Living with partner (%)	17.0	-1.3	14.1	1.2	

Exhibit 3.5
Impacts on Selected Economic and Family Structure Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Families of Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Living with other adults (%)	17.3	1.3	12.5	-2.2	
Fertility					
Gave birth since random assignment (%)	41.5	-2.6	39.8	-2.1	
Housing Status					
Own home (%)	18.1	0.6	21.9	-2.6	
Sample size (total = 1,679)					

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

- a Ongoing clients are defined as clients who were receiving welfare in the month Indiana began its welfare reform program (May 1995) (n=1,102). Applicants are defined as clients who began receiving welfare in any subsequent month during the first year of the program (June 1995 – April 1996) (n=577).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d Material Hardship scale = 4 items, each rated on a 4-point scale from strongly agree to strongly disagree: my financial situation is better than it has been in a long time; I worry about having enough money in the future; I can generally afford to buy the things we need; and there never seems to be enough money to buy something or go somewhere just for fun. A higher total score indicates greater hardship.

Exhibit 3.6
Impacts on Selected Economic and Family Structure Outcomes for Subgroups
Defined By Mother's Employment History^a for Families of Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Employment and Earnings							
Employed at the time of the survey (%)	48.6	9.6**	54.5	1.4	60.2	2.1	
Respondent's earnings in the month before the survey, annualized	\$8,006	\$627	\$7,531	\$25	\$8,844	-\$627	
TANF Receipt							
Receiving TANF at the time of the survey (%)	29.3	-4.1	30.1	-7.5**	26.3	-6.8*	
Amount received from TANF in the month before the survey, annualized	\$1,187	-\$450***	\$1,129	-\$445***	\$858	-\$252*	
Income							
Total household income in the month before the survey, annualized	\$20,566	\$31	\$20,176	-\$800	\$20,467	-\$804	
Material Hardship and Financial Strain							
Material Hardship scale ^d	2.6	0.0	2.6	0.0	2.6	0.0	
Food Security (USDA Scale)							
Food secure (%)	63.7	2.6	64.9	-7.6*	65.5	-8.0*	†
Food insecure without hunger (%)	27.6	-3.0	26.5	3.2	27.3	3.7	
Food insecure with hunger (%)	8.7	0.3	8.6	4.4*	7.2	4.3	
Marital Status							
Never married (%)	46.4	1.8	42.8	-2.4	42.7	-1.9	

Exhibit 3.6
Impacts on Selected Economic and Family Structure Outcomes for Subgroups
Defined By Mother’s Employment History^a for Families of Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Living Situation							
Living with no other adults (%)	46.4	3.9	45.4	3.9	50.0	-3.3	
Living with spouse (%)	19.5	-1.5	25.5	-1.3	28.0	-1.3	
Living with partner (%)	16.8	5.5*	17.8	-5.5*	8.7	0.6	††
Living with other adults (%)	17.2	-8.1***	11.3	2.9	13.2	4.0	†††
Fertility							
Gave birth since random assignment (%)	35.5	-3.4	42.2	-1.8	45.0	-0.9	
Housing Status							
Own home (%)	20.7	-1.3	19.2	-1.4	22.3	-2.2	
Sample size (total = 1,679)							

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

- a “Least” work experience=0 quarters employed in the 5 quarters prior to random assignment (n=629). “Medium” work experience=2 or 3 quarters employed in the 5 quarters prior to random assignment (n=603). “Most” work experience=4 or 5 quarters employed in the 5 quarters prior to random assignment (n=447).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d Material Hardship scale = 4 items, each rated on a 4-point scale from strongly agree to strongly disagree: my financial situation is better than it has been in a long time; I worry about having enough money in the future; I can generally afford to buy the things we need; and there never seems to be enough money to buy something or go somewhere just for fun. A higher total score indicates greater hardship.

Chapter 4

Impacts on Children

This chapter examines the impacts of Indiana’s welfare reform program on three major domains of child development and functioning: educational performance, social behavior and emotional well-being, and health and physical well-being. The impacts of the program are assessed by comparing the status of children in the Welfare Reform group with that of children in the Traditional Welfare group in these three domains.

After summarizing key findings, this chapter presents impacts for focal children, who ranged in age from 5 to 12 at the time parents were asked to assess the children’s functioning. The chapter next presents findings for all adolescent children (ages 13 to 17) in the survey sample. The chapter then examines impacts on subgroups defined by: child gender, parental employment history, and TANF case status (that is, whether a family was an ongoing case or an applicant at random assignment). The analysis of impacts by gender is motivated in part by recent findings that another welfare-to-work program had strong positive effects on boys, but not girls (Huston *et al.* 2001). The chapter concludes with a brief discussion of the implications of the findings.

Summary of Key Findings

Indiana’s welfare reform program had no clear impacts on the well-being of focal children. The increase in parental employment reported in Chapter 3 could have had either positive or negative effects on children. It appears, however, that the impacts of Indiana’s program on adults were not large enough to affect the well-being of focal children (ages 5 to 12). Across the measures of educational performance, social behavior and emotional well-being, and health, only one program impact was statistically significant, a 2-percentage point increase in arrest rates among children ages 10 to 12. Given the number of outcomes tested, we would expect to find at least a few statistically significant outcomes just by chance. Therefore, the existence of one impact is not necessarily meaningful.

For adolescents, the program had an unfavorable impact on school performance but no effect on other outcomes measured. Parents in the Welfare Reform group rated their adolescents' school performance lower than did parents in the Traditional Welfare group. Consistent with this finding, other studies have found evidence of unfavorable impacts of welfare reform on adolescents. There were no other program impacts for adolescents, although the survey assessed fewer outcomes for adolescents than for focal children.

Indiana's program did not have systematically different effects on boys compared to girls. Although the program had few impacts on children overall, it could have had differential effects on subgroups of children. For subgroups defined by gender, we found virtually no differences in impacts for boys and girls in the focal child sample. For adolescents, boys showed larger unfavorable impacts than girls on involvement with the police.

Impacts were largest for the subgroups that were at lowest risk of long-term TANF receipt—recent welfare applicants (as opposed to ongoing recipients) and families with the most work history. Impacts on school absences and overall health status were more favorable for applicant families than for ongoing recipient families. Families with the most work history had more favorable impacts on school performance and health status than families in which the mother had less recent work experience.

4.1 Impacts on Focal Children

Impacts on focal children, who were between 5 and 12 years old at the time of the survey, are summarized in Exhibits 4.1 through 4.3, each of which addresses one of the three major outcome domains. Impacts are presented both in terms of differences between the Welfare Reform and Traditional Welfare groups and in terms of effect sizes, a measure of how big an impact is. As a rule of thumb for experimental studies, effect sizes between 0.1 and 0.2 may be considered small impacts, those between 0.2 and 0.3 may be considered medium, and effect sizes of 0.3 or higher may be considered large impacts. For any measure on which the program impact is statistically significant, the exhibits indicate whether the impact is favorable or unfavorable.

Educational Performance

The original hypotheses of Indiana's welfare reform program were that increased parental employment and family income could affect children's educational outcomes. As reported in Chapter 3, the program had impacts on parental employment, but not overall family income. Increases in parental employment could have positive or negative consequences for children's education outcomes. Parents who are exposed to the structure and values of the workplace might adopt attitudes and behavior that are more supportive of children's learning and achievement. On the other hand, increases in parent employment may lead to added stress for parents, reduced parental monitoring and involvement with children, and increased time in child care arrangements that may not be of high quality. The findings on education outcomes are summarized in Exhibit 4.1 and discussed below.

School Performance. The primary measure of school performance was parents' assessment of children's academic functioning. Parents rated their child's school performance on a 5-point scale that ranged from "not well at all" to "very well." Parents in the Traditional Welfare group rated their children, on average, as exhibiting a high level of school performance. Their average rating was 4.2 out of 5 points (with 4 meaning the child was performing "well" in school and 5 meaning the child was performing "very well"). The majority of Traditional Welfare parents (52 percent) rated their child as performing "very well," while only 8 percent rated their child as performing poorly ("below average" or "not well at all").

The evaluation found no program impact on school performance. Parents in the Welfare Reform group rated their children's school performance at virtually the same high level as did the parents in the Traditional Welfare group.

Exhibit 4.1
Impacts on Education Outcomes for Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^a	Is the Impact Favorable?
School Performance					
School performance scale (1-5) ^b	4.2	4.2	0.0	.01	
Performs "very well" in school (%)	53.4	52.0	1.4	.03	
Performs poorly in school (%) ^c	6.7	7.6	-0.9	.04	
Engagement in School					
School engagement scale (4-12) ^d	10.3	10.3	0.0	.01	
High level of school engagement (%) ^d	41.8	42.2	-0.4	.01	
Low level of school engagement (%) ^d	10.9	10.4	0.5	.02	
Repeated a Grade—since random assignment					
Repeated any grade (%)	12.8	13.4	-0.7	.02	
Number of repeated grades	0.1	0.2	0.0	.02	
Receipt of Special Education—since random assignment					
Received any special education (%)	12.9	10.7	2.3	.07	
School Attendance—past month					
Number of absences	1.1	1.1	0.0	.01	
Absence scale (0-4) ^e	0.6	0.6	0.0	.02	
High level of absences (5+ days) (%)	3.9	3.7	0.3	.02	
Tardiness scale (0-4) ^e	0.7	0.8	-0.1	.06	
Sample size (total = 1,679)	819	860			

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

- a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- b School performance scale: 5=very well, 4=well, 3=average, 2=below average, and 1=not well at all.
- c "Poor" school performance = "below average" or "not well at all".
- d School engagement scale= 4 items each rated on a 3-point scale: 1=not engaged, 2=sometimes engaged, and 3=often engaged. "High" engagement =score of 8.4 or higher. "Low" engagement = score of 5.7 or lower.
- e Absence scale and tardiness scale: 0=none, 1=1 to 2 days, 2=3 to 4 days, 3=5 to10 days, and 4= more than 10 days.

School Engagement. For elementary-age children, academic achievement is not the only indicator of successful educational performance. Particularly for young children just starting in school, academic achievement may not be the most important aspect of educational performance or a predictor of long-term success in school. A child’s level of engagement and interest in school is a critical component of overall academic functioning, since positive attitudes toward school and learning are strong correlates of school performance.

Parents assessed their child’s level of school engagement by rating the child on four items: whether he or she (a) cared about schoolwork, (b) completed his or her schoolwork without being forced, (c) did more than the minimum schoolwork, and (d) did homework. On each item, parents rated the child from 1 to 3, with 3 meaning that the child was performing these tasks “often,” 2 meaning “sometimes,” and 1 meaning “never.” A child’s final score for school engagement was the sum of the scores for the four items.

Parents in the Traditional Welfare group gave their child an average total score of 10.3 across the four items, for an average score per item of 2.6. This average score indicates that parents felt their children were engaged with their schoolwork at a frequency halfway between “sometimes” and “often.” Just over 40 percent of Traditional Welfare group parents rated their child’s level of engagement as “high” (an average item score above 2), while 10 percent of parents rated their child as having a “low” level of engagement (an average item score below 1.5).

Parents in the Welfare Reform group had very similar views of their children’s level of engagement in school. The evaluation found no impacts on children’s level of engagement in school.

Repeating a Grade. Another education outcome measured by the study was whether children had repeated a grade in school since random assignment. In elementary school, a child may repeat a grade because of inadequate performance or, just as often, because a teacher judges the child to be developmentally behind other children the same age and therefore believes the child would benefit from another year in the same grade. In either case, repeating a grade can be interpreted as indicating below-average school performance.

Research suggests that children who have been retained in kindergarten perform significantly below their first- and second-grade classmates in terms of their ability to concentrate, learning up to their capabilities, and acting up or disrupting the class (West, Meek, and Hurst, 2000).

According to parents' reports, 13 percent of Traditional Welfare group children had repeated a grade since random assignment (about 5 years earlier). Children who repeated a grade had, on average, repeated a single grade each. Although no national data are available on the rate of grade repetition in the elementary school years, data on the rate of kindergarten retention are available. Kindergarten is a common time for children to be retained in grade, if they are identified as having delays in growth or development or are having difficulties adapting to the school environment. Nationally, 5 percent of children are retained in kindergarten. Other national figures show that, on average, approximately 10 percent of students ages 5 to 18 repeat a grade.¹

Indiana's welfare reform program had no impact on the rate of retention in grade. The incidence of grade repetition for children in the Welfare Reform group was virtually identical to that for the Traditional Welfare group children: approximately 13 percent of the children had repeated a grade since kindergarten, and all but a handful of children had repeated a single grade each.

Special Education. Receipt of special education services is another indicator of a child's level of academic functioning. On an annual basis, 11 percent of children nationally in the age range 6 to 17 years receive special education services from their schools (U.S. Department of Education, 2000). For children in the Traditional Welfare group, almost 11 percent of parents reported that their child had received some special education services since random assignment because of a "physical, emotional, behavioral or other problem that limited the kind or amount of school work" that the child could do. This number cannot be compared directly to the national number because the survey number covers a longer period (from the time of random assignment rather than annually), and because the method of measuring receipt of special education differs for the two sources.

¹ U.S. Department of Education (1997), cited in Hamilton, Freedman, and McGroder (2000).

Although a somewhat higher proportion of children in the Welfare Reform group had received special education services (13 percent versus 11 percent in the Traditional Welfare group), the difference was not statistically significant.

School Attendance. How often a child is tardy or absent from school is important as a measure of how much time a child spends in school, and potentially as an indicator of family attitudes toward school. Children who are consistently tardy or absent spend substantially less time in the classroom, and research shows that more time in school is linked to greater learning. Being absent or tardy on a consistent basis may result from chronic or frequent child health problems; it also may be related to a family's attitudes and behavior regarding school. Attendance may be linked to a child's interest and engagement in school, to the extent that children can influence their own attendance patterns. Tardiness is also a manifestation of both family and child behavior, although it is less closely tied to child health. Tardiness, like attendance, may be related to how seriously the parent regards school, as well as the child's own interest in or engagement in school.

Traditional Welfare group parents reported that their child had been absent from school, on average, a little more than 1 day during the most recent 4-week period. This represents a fairly low rate of absence—1 day of absence in a month of school means that a child misses 5 percent of the possible instructional time during that period. Only a small proportion of Traditional Welfare group children—almost 4 percent—had been absent 5 or more days during the previous month. Children in the Traditional Welfare group also reported a low rate of tardiness.

The evaluation showed no program impacts on attendance or tardiness. Children in the Welfare Reform group were absent or tardy the same amount of time, on average, as children in the Traditional Welfare group.

School Dropout. Another indicator of children's educational performance is whether they had dropped out of school at any time since random assignment. Dropping out of school is correlated with poor academic performance for secondary school students. However, because all children in the focal group sample were younger than age 13, very few would

have been expected to drop out (because school attendance is compulsory for this age group). Not unexpectedly, no children in either the Traditional Welfare or Welfare Reform groups were reported by parents to have dropped out of school following random assignment. Indiana's welfare reform program, therefore, had no impact on the dropout rate.

Social Behavior and Emotional Well-Being

The second domain of child outcomes examined was social and emotional development. Research shows that healthy social relationships and good mental health are not only important to children in their own right, but that these aspects of children's functioning are critical correlates of children's overall adjustment and their success as learners. The changes in parental employment that resulted from Indiana's welfare reform program could have had an effect on children's social and emotional development. As with education outcomes, impacts of increased maternal employment on children's social behavior and emotional well-being can be positive or negative. Increased work hours for parents may have negative consequences on a child's emotional and social development if the parents' employment is associated with more parental stress, additional unsupervised time and less parent attention for children, and more time in child care of mediocre or poor quality. On the positive side, increased parent employment could lead to improved parent self-esteem, which in turn could lead to better parenting practices with beneficial effects on children.

The survey included multiple measures to assess the child's positive and negative social behavior, with peers and with adults. The child's positive social functioning (e.g., prosocial behavior, warmth, and popularity) was measured via parents' assessment of the child's social competence. The child's negative social functioning was measured in three ways. First, parents used a rating scale called the Behavior Problems Index to assess their child's social conduct in and out of school. Second, parents reported the frequency of any official disciplinary actions (specifically, suspension or expulsion) the school had taken toward their child. Finally, for older children, parents were asked about any involvement the child had had with the police. Exhibit 4.2 summarizes the impact findings for children's social functioning and emotional well-being.

Exhibit 4.2
Impacts on Social Behavior and Emotional Well-Being for Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size^a	Is the Impact Favorable?
Positive Behavior					
Social competence subscale (0-70) ^b	58.1	57.7	0.3	.03	
Behavior Problems—last 3 months					
Behavior problem index, total score (0-56) ^c	11.4	12.0	-0.5	.06	
Externalizing problems sub-score (0-22)	5.6	5.9	-0.3	.06	
Internalizing problems sub-score (0-14)	1.8	2.0	-0.2	.08	
School Disciplinary Actions—since random assignment					
Expelled (%)	0.9	0.8	0.1	.01	
Suspended (%)	7.1	6.3	0.8	.03	
Expelled or suspended (%)	7.4	6.5	0.9	.03	
Expelled and suspended (%)	0.6	0.6	0.0	.00	
Criminal Behavior (ages 10 to 12)					
Ever arrested (%)	2.2	0.5	1.7*	.15	No
Ever convicted of a crime (%)	1.0	0.5	0.6	.06	
Sample size (total = 1,679)	819	860			

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

- a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- b Social Competence Subscale=7 behaviors from the Positive Behavior Scale, each rated on 10-point scale, from “not at all like my child” to “totally like my child”. A higher score indicates greater social competence.
- c Behavior Problems Index=28 behavior problems, each rated on 3-point scale: 0=not true, 1=sometimes true, and 2=often true. A higher score indicates more behavior problems.

Positive Social Behavior. The Social Competence Subscale was used to measure children's positive social behavior. The scale consists of seven items, each of which describes a positive social behavior such as "My child gets along with other children" and "My child tends to give, lend, and share." For each positive social behavior, parents indicated how accurately the item characterized their child, using a scale from 0 ("Not at all like my child") to 10 ("Totally like my child"). The child's score on the Social Competence Subscale was computed as the total across the seven items. The highest possible score on the measure is 70 points, with a higher number meaning more positive social behavior.

Traditional Welfare group children received an average rating of 57.7 from their parents, which suggests that, on average, these children were functioning at a high level of positive social behavior. The evaluation found no program impact on children's social functioning. Parents in the Welfare Reform group rated their children's positive social behavior at a level similar to the ratings by the Traditional Welfare group parents.

Behavior Problems. One measure of negative social behavior was provided by parents' rating of their children on the Behavior Problems Index (BPI). The index includes 28 items that describe behavior problems, and each item is rated on 3-point scale, with "0" meaning the behavior problem described is "not true" of the child, "1" meaning it is "sometimes true," and "2" meaning it is "often true."

Eleven items on the index focus on social conduct problems such as bullying, cheating, and breaking objects, and these items together form a subscale labeled "externalizing" problems or acting out. The highest possible score a child could obtain for externalizing behavior is 22 points (2 points for each of the 11 items). Seven items on the BPI focus on emotional problems such as fearfulness, anxiety, mood changes, and feelings of inferiority. Taken together, these seven items form a subscale labeled "internalizing" problems or emotional problems. The highest possible score for internalizing problems is 14 points, with higher scores indicating a higher level of emotional problems. In addition to the 2 subscales, a total score for behavior problems was computed, based on all 28 items on the index. The highest possible total score was 56 points.

Children in the Traditional Welfare group had an average total score of 12.0, which is somewhat higher than the average total score for a national sample of school-age children from the National Longitudinal Survey of Youth (NLSY).² The NLSY sample had an average total score of 10.5 on the BPI. Children in the Welfare Reform group had an average total score of 11.4, only slightly lower than the score of the children in the Traditional Welfare group. The difference between the two groups was not statistically significant.

On the externalizing subscale, children in the Traditional Welfare group had an average score of 5.9 out of the total possible 22 points. This score could mean that a child had exhibited up to six problem behaviors “sometimes” or that a smaller number of problems were in evidence on a regular basis. Welfare Reform group parents rated their children as having an average score of 5.6 on externalizing problems, lower than the score for the Traditional Welfare group, but not a statistically significant difference.

On the internalizing problems subscale, children in the Traditional Welfare group received an average rating of 2.0. This score indicates that the children had only one or two internalizing problems, which suggests that the children had good emotional health. The scores for internalizing problems also indicate that children exhibited fewer emotional behavior problems than acting-out behavior problems. Although children in the Welfare Reform group had a slightly lower score on the internalizing problems subscale, the difference was not statistically significant.

School Disciplinary Actions. Another indicator of social behavior problems is a child’s involvement in school disciplinary actions, such as expulsion or suspension. Elementary schools, however, rarely use these relatively severe disciplinary actions as methods to punish or control students. Therefore, it is not surprising that suspension and expulsion rates are very low among focal children. Among Traditional Welfare group children, only 1 percent had been expelled and 6 percent had been suspended since random assignment 5 years earlier. The program did not have an impact on the frequency of suspension or expulsion for focal children.

² Abt Associates calculations from the NLSY. The NLSY, sponsored by the Bureau of Labor Statistics, includes questions for children born to a nationally representative sample of young women (14 to 21 years). The survey on their children started in 1986 and has continued biennially through the present.

Criminal Behavior. A third indicator of behavior problems is a child’s involvement with the police. Only the parents of focal children who were between 10 to 12 years old at the time of the survey were asked about criminal behavior. Given these children’s young age, we would expect a low rate of involvement in criminal activity. In fact, less than 1 percent of parents in the Traditional Welfare group reported that their child had been convicted of a crime or arrested. Although parents of children in the Welfare Reform group also reported low rates of arrest and conviction, 2 percent of children had been arrested, which translates into a statistically significant higher rate of arrest for children in the Welfare Reform Group than that for children in the Traditional Welfare group. The effect size for this program impact is small (0.15).

Because the higher arrest rate was the only statistically significant impact on focal children across all three domains, and because 1 out of 10 impact estimates are expected to be significant at the 10-percent level just by chance, it is unclear whether the program impact on arrests is a “real” effect of welfare reform.

Health and Safety

Improvements in families’ economic well-being might lead to improvements in children’s health. For example, if an increase in employment brought about by welfare reform means that more families are working full-time or that more families have jobs that provide good health care benefits, children might receive better health care and therefore have better health outcomes. Exhibit 4.3 presents findings on health and safety outcomes for focal children.

Health Status. Parents in the Traditional Welfare group rated their elementary school-age children’s overall health as, on average, very good (4.2 out of 5 points). The majority of children (76 percent) were rated as having excellent or very good health, while only a small proportion were described as having fair or poor health. These numbers are comparable to results from the National Health Interview Survey which show that, for a national sample of children ages 5 to 7, 79 percent of mothers rated their child’s health as excellent or very good.

Exhibit 4.3
Impacts on Health and Safety for Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^a	Is the Impact Favorable?
Overall Health Status					
Health status scale (0-5) ^b	4.2	4.2	0.0	0.07	
“Excellent or good” health (%)	76.3	75.7	0.6	0.02	
“Fair or poor” health (%)	6.2	6.0	0.2	0.01	
Injury or Accident—since random assignment					
Any injury or accident requiring emergency room visit (%)	24.9	25.5	-0.6	0.01	
Medical and Dental Care					
Access to routine health care (%)	92.6	94.2	-1.7	0.07	
Access to sick care (%)	89.4	90.3	-0.9	0.03	
Use emergency room for care (%)	7.0	7.9	-0.8	0.03	
Never seen a doctor (%)	0.0	0.0	0.0	—	
Time since last saw doctor (1-5 scale) ^c	0.7	0.7	0.0	0.00	
Never seen a dentist (%)	5.8	4.5	1.4	0.06	
Time since last saw dentist (1-5 scale) ^c	0.8	0.9	-0.1	0.08	
Sample size (total = 1,679)	819	860			

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent..

- a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- b Health status scale: 5=excellent, 4=very good, 3=good, 2=fair, and 1=poor.
- c Scale for length of time since last seeing a doctor or dentist: 1=less than 1 year, 2=1 to 2 years, 3=2 to less than 3 years, 4=3 or more years, and 5=never.

Approximately one-fourth of the children in the Traditional Welfare group had an injury or accident that required medical care or hospitalization during the 5 years following random assignment. The NLSY, which reports the rate of accidents and injuries for only the previous 12 months, found that 15 percent of school-age children in the sample had an accident or injury that required medical care during that period. In another national sample of children under the age of 18, 12 percent of children were reported to have experienced an accident, injury, or poisoning in the previous year.³

Welfare reform had no impacts on children's health status. The average rating of overall health status for children in the Welfare Reform group was not different from that for children in the Traditional Welfare group. The two groups had similar proportions of children in excellent or very good health and similar proportions in fair or poor health. In addition, virtually the same proportions of children in the Welfare Reform and Traditional Welfare groups had an accident or injury that required an emergency room visit.

Health Care Access and Use. Parents provided information on their access to sources for routine health and sick care for their children. Ninety-four percent of Traditional Welfare group parents reported that they had access to a place where their child could receive routine, preventive health care, and 90 percent reported that they had a clinic, health center, or other place where they could take their child when he or she was sick. Use of a hospital emergency room to obtain care for a sick child may indicate that a family has no regular source of health care. Less than 10 percent of families in the Traditional Welfare group identified the hospital emergency room as the place where they took their child when he or she was sick.

All parents in the Traditional Welfare group reported that their child had seen a doctor at least once for routine care. These parents reported that, on average, their child had seen a doctor for regular preventive care at least once within the past year. Similarly, 96 percent reported that their child had seen a dentist at least once. On average, most children in the Traditional Welfare group had seen a dentist within the previous year.

³ National Center for Health Statistics (1997). Not reported, however, is the proportion of children requiring medical treatment for these incidents.

The rate of receipt of routine medical care among children in the Traditional Welfare group was the same as that among school-age children in the nationally representative sample from the NLSY. In the NLSY sample, 99 percent of children had seen a doctor, compared with 100 percent of the Indiana children. The rate at which children received routine dental care, however, was higher for children in the Indiana sample than for children in the NLSY sample. Twenty-two percent of children in the NLSY sample had not seen a dentist, compared with only 5 percent of children in the Traditional Welfare group.

Welfare reform had no significant impacts on health care access or use. Children in the Welfare Reform group and children in the Traditional Welfare group had equally high levels of access to routine preventive care and sick care and similarly low levels of use of the emergency room for sickness. Like children in the Traditional Welfare group, all children in the Welfare Reform group had seen a doctor and most had seen one during the previous year. In addition, virtually all children in the Welfare Reform group had seen a dentist.

4.2 Impacts on Adolescents

The evaluation also estimated program impacts on outcomes for the adolescent sample. Just as families with focal children were assigned randomly to the Welfare Reform and Traditional Welfare groups and are therefore comparable, families with adolescents were assigned randomly to the two groups and also can be assumed to be comparable. Unbiased estimates of impacts on adolescents can be calculated by comparing outcomes for adolescents in the Welfare Reform group with outcomes for adolescents in the Traditional Welfare group.

Exhibit 4.4 summarizes the welfare reform program's impacts on adolescents. Although outcome measures for adolescents were calculated in all three domains—education, social behavior and emotional development, and health and safety—the survey measured fewer outcomes in each domain for adolescents than for focal children.

Education

Only two measures of educational outcomes were assessed for adolescents: school performance and school dropout rate.

Exhibit 4.4
Impacts on Child Outcomes for Adolescents^a
(Ages 13 to 17)

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^b	Is the Impact Favorable?
Education					
School Performance					
School performance scale (1-5) ^c	3.5	3.7	-0.2**	0.15	No
Performing "very well" in school (%)	27.0	34.2	-6.3**	0.14	No
Performing poorly in school (%) ^d	17.9	15.1	2.8	0.08	
School Dropout—since random assignment					
Dropped out of school (%)	7.4	5.6	1.9	0.08	
Social Behavior and Emotional Well-Being					
School Disciplinary Actions—since random assignment					
Expelled (%)	10.8	10.3	0.6	0.02	
Suspended (%)	30.6	33.6	-3.0	0.06	
Expelled or suspended (%)	33.4	35.2	-1.8	0.04	
Criminal Behavior					
Ever involved with police (%)	21.4	17.7	3.7	0.09	
Teen Births—since random assignment					
Had or fathered a baby (%)	3.1	4.4	-1.2	0.07	
Sample size (total = 1,126)	530	596			

Source: *Indiana 5-Year Follow-Up Survey.*

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

- a Adolescent sample includes custodial (n=977) and non-custodial (n=149) adolescent children.
- b Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- c School performance scale: 5=very well, 4=well, 3=average, 2=below average, and 1=not well at all.
- d "Poor" school performance = "below average" or "not well at all."

School Performance. Parents assessed their adolescent children’s level of academic functioning using the same 5-point scale as that used for focal children. Parents in the Traditional Welfare group rated their adolescents, on average, as performing at a level between “average” and “well” (3.7 out of 5 points). About one-third of the adolescents in the Traditional Welfare group were rated by their parents as performing “very well” in school, while 15 percent were rated as performing “poorly.” Parents’ ratings of adolescents’ school performance were substantially lower than parents’ ratings of focal children’s school performance (see Exhibit 4.1 for focal child scores).

Welfare reform was found to have an unfavorable program impact on parent ratings of the school performance of adolescent children. Parents in the Welfare Reform group rated their adolescents’ school performance lower, on average, than did parents in the Traditional Welfare group. The difference was small but statistically significant. In addition, a lower proportion of adolescents in the Welfare Reform group were rated as having the highest level of school performance—only 27 percent of Welfare Reform parents rated their adolescent child as performing “very well” in school.

School Dropout Rate. The rate of school dropout for adolescents is an important educational outcome. Research shows that youth who fail to complete high school have lower rates of employment and lower earnings over their lifetime. National statistics on high school dropout rates report an overall rate of 11.2 percent (U.S. Department of Education, National Center for Education Statistics 2000). The dropout rate for the adolescents in the Traditional Welfare group was low—only 5.6 percent of adolescents in the Traditional Welfare group were reported by their parents to have dropped out of school following random assignment. Because most adolescents in the sample had not yet finished high school and some were young enough that school attendance was compulsory, the future dropout rate for the adolescent sample is likely to be somewhat higher.

Indiana’s welfare reform program had no significant impact on the school dropout rate. In the Welfare Reform group, 7.4 percent of adolescents were reported to have dropped out of school since random assignment.

Social Behavior and Emotional Well-Being

For adolescents, the only outcome measures available in the domain of social behavior and emotional development were disciplinary actions for school misbehavior and involvement with the police.

School Disciplinary Actions. As might be expected, rates of suspension and expulsion from school were substantially higher for adolescents than for focal children. Expulsions were still relatively rare: 10 percent of adolescents in the Traditional Welfare group and 11 percent of adolescents in the Welfare Reform group were expelled at some point following random assignment. The difference between the two groups was not statistically significant.

Suspensions were much more common than expulsions. One-third of adolescents in the Traditional Welfare group were reported to have been suspended at some point after random assignment. This rate is much higher than that reported for a national sample of eighth graders, only 11 percent of whom had ever been suspended from school.⁴ Welfare reform had no impact on the rate of suspensions. The difference between the suspension rates for adolescents in the Traditional Welfare group (34 percent) and adolescents in the Welfare Reform group (31 percent) was not statistically significant.

Involvement With the Police. Predictably, more involvement with the police was reported for adolescents than for focal children. Of adolescents in the Traditional Welfare group, 18 percent had had some involvement with the police, compared with 21 percent of adolescents in the Welfare Reform group. The difference between the two groups was not statistically significant.

Teen Births

Information on health and safety outcomes for the adolescents was limited. The only outcome measured for this group was the proportion of adolescents who were involved in a teenage pregnancy, which was defined for females as having been pregnant and for males as having fathered a child. Of adolescents in the Traditional Welfare group, 4.4 percent were

⁴ As reported by the U.S. Department of Education (1997), cited in Hamilton, Freedman, and McGroder (2000).

reported to have been involved in a teenage pregnancy. This percentage is somewhat higher than the rate of 2.8 percent reported by the National Center for Health Statistics in 2000 for all females ages 15 to 17.

The evaluation found no significant program impact on teen births, since only a slightly smaller percentage of adolescents in the Welfare Reform group (3 percent) were reported to have been involved in a teenage pregnancy.

4.3 Impacts on Subgroups: Focal Children

This section presents impacts on subgroups of focal children. Subgroups are defined according to TANF status (ongoing or applicant), mother's level of employment prior to random assignment, and child's gender. Within these three categories, the discussion focuses first on statistically significant impact differences *across* subgroups and then on statistically significant impacts *within* subgroups.

For focal children, the primary subgroup impact differences were for the work history subgroups, with children in the "most work history" subgroup having the most favorable impacts.

Subgroups Defined by Gender. Welfare reform did not generate different impacts for boys and girls. Two differences were statistically significant at the 10-percent level, but given the number of outcomes examined, this is not more than would be expected by chance (Exhibit 4.5). Further, the two significant differences were in different directions. Boys had more favorable impacts than girls on performing poorly in school (that is, welfare reform reduced the proportion of male focal children who performed poorly in school, and this favorable impact was larger than the impact for female focal children). Girls, however, had a more favorable impact than boys on using an emergency room for care (that is, welfare reform reduced the proportion of female focal children who used the emergency room for care, and this favorable impact was larger than the impact for male focal children).

Within the subsample of male focal children, three impacts were statistically significant, and two of these three impacts were favorable. Boys in the Welfare Reform group had fewer

behavioral problems and were less likely to perform poorly in school than boys in the Traditional Welfare group. On the other hand, boys in the Welfare Reform group were more likely to have been suspended from school than boys in the Traditional Welfare group.

For female focal children, the only significant impact was on school suspensions. Girls in the Welfare Reform group were more likely to have been suspended than girls in the Traditional Welfare group.

In terms of *outcomes* rather than impacts, females generally had better educational outcomes than males, as would be expected from the literature on school functioning. For example, female focal children had a higher level of school performance (59 percent of females in the Traditional Welfare group were rated as performing very well versus 45 percent of males), a lower level of grade repetition (11 versus 15 percent), a higher level of school engagement (52 percent of females rated as having high school engagement versus 33 percent of males), and a lower rate of suspension (3 versus 10 percent).

Exhibit 4.5
Impacts on Child Outcomes
for Subgroups Defined by Gender^a
for Focal Children

Outcome	Females		Males		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Education					
School Performance					
School performance scale (1-5) ^d	4.3	0.0	4.0	0.9	
Performing "very well" in school (%)	58.8	2.0	45.4	0.7	
Performing poorly in school (%) ^e	5.6	1.5	9.5	-3.3*	†
Repeated Grade—since random assignment					
Repeated any grade (%)	11.4	1.3	15.3	-2.4	
Number of repeated grades	0.1	0.0	0.2	0.0	
Special Education—since random assignment					
Received special education (%)	7.8	0.8	13.4	3.7	
School Dropout—since random assignment (ages 10+)					
Dropped out of school (%)	4.7	-0.7	3.2	2.1	
School Attendance—past month					
Number of absences	1.0	0.1	1.1	0.0	
Absence scale (0-4) ^f	0.6	0.0	0.6	0.0	
"High" level of absences (%)	2.4	1.9	4.9	-1.2	
Tardiness scale (0-4) ^f	0.8	-0.1	0.8	-0.1	
Engagement in School					
School engagement scale (1-3) ^g	10.7	-0.1	10.0	0.0	
"High" level of school engagement ^g (%)	52.4	-1.9	32.5	0.6	
"Low" level of school engagement ^g (%)	7.0	1.1	13.6	0.1	

Exhibit 4.5
Impacts on Child Outcomes
for Subgroups Defined by Gender^a
for Focal Children

Outcome	Females		Males		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Social Behavior and Emotional Well-Being					
Positive Behavior					
Social Competence Subscale (0-70) ^h	59.4	0.0	56.2	0.5	
Behavior Problems—past 3 months					
Total number of problems (0-56) ⁱ	10.6	0.1	13.2	-1.1*	
Internalizing problems (0-14)	1.8	-0.0	2.2	-0.3**	
Externalizing problems (0-22)	5.3	-0.1	6.4	-0.4	
School Disciplinary Actions—since random assignment					
Expelled (%)	0.4	0.0	1.1	0.3	
Suspended (%)	2.7	2.6*	9.7	0.9*	
Suspended or expelled (%)	2.8	2.5	10.0	-0.6	
Criminal Behavior (ages 10+)					
Ever arrested (%)	-0.0	0.7	1.0	3.0	
Ever convicted of crime (%)	-0.0	0.0	0.9	1.3	
Health and Safety					
Health Status					
Health status scale (1-5) ^j	4.2	0.1	4.1	0.1	
“Excellent or good” health (%)	79.8	0.7	71.9	0.3	
“Fair or poor” health (%)	6.3	-1.1	5.7	1.6	
Injury or Accident—since random assignment					
Injury or accident requiring care (%)	22.0	-0.5	29.0	-0.9	

Exhibit 4.5
Impacts on Child Outcomes
for Subgroups Defined by Gender^a
for Focal Children

Outcome	Females		Males		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Medical or Dental Care					
Has access to routine care (%)	93.8	-1.7	94.7	-1.6	
Has access to sick care (%)	90.6	-2.5	90.1	0.7	
Uses emergency room for care (%)	9.4	-2.9	6.4	1.1	†
Has never seen a doctor (%)	0.0	0.0	0.0	0.0	
Time since last saw doctor (1-5 scale) ^k	0.7	-0.0	0.7	0.0	
Has never seen a dentist (%)	4.1	1.5	4.8	1.2	
Time since last saw dentist (1-5 scale) ^k	0.9	-0.1	0.9	-0.1	
Sample size (total = 1,679)					

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey)

- a Females (n = 829); males (n = 849); gender missing for child of 1 respondent.
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.
- e “Poor” school performance = “below average” or “not well at all”.
- f Absence and tardiness scale: 0=none, 1=1 to 2 days, 2=3 to 4 days, 3=5 to 10 days, 4= more than 10 days.
- g School engagement scale=4 items, each rated on a 3-point scale: 1=not engaged, 2=sometimes engaged, 3=often engaged. “High” engagement =score of 8.4 or higher. “Low” engagement = score of 5.7 or lower.
- h Social competence subscale=7 behaviors, each rated on 10-point scale, from “not at all like my child” to “totally like my child.” A higher score indicates greater social competence.
- i Behavior Problems Index=28 behavior problems, each rated on 3-point scale: 0=not true, 1=sometimes true, 2=often true. A higher score indicates more behavior problems.
- j Health status scale: 5=excellent, 4=very good, 3=good, 2=fair, 1=poor.
- k Scale for amount of time since doctor, dentist was seen: 1=less than 1 year, 2=1 to 2 years, 3=2 to less than 3 years, 4=3 or more years, 5=never.

Subgroups Defined by TANF Ongoing or Applicant Status. As with gender, the evidence on TANF status suggests that welfare reform did not produce substantially different impacts on focal children in ongoing versus applicant families (Exhibit 4.6). Impacts for ongoing and applicant clients differed in only two areas—health status and school attendance—and in opposite directions. Applicant focal children had more favorable impacts on health than focal children in ongoing cases. Ongoing children, however, had more favorable impacts than applicant children on school attendance.

For applicant families, welfare reform apparently led to improvements in health for focal children. Applicant parents in the Welfare Reform group were more likely than their counterparts in the Traditional Welfare group to report that their child was in excellent or good health, which also led to a positive impact on the average rating of overall health. On the other hand, Welfare Reform group parents in the applicant subgroup reported a higher proportion of focal children with a high level of school absences than Traditional Welfare group parents in the applicant subgroup.

For focal children in ongoing families, the only statistically significant impact was a decrease in school tardiness.

Subgroups Defined by Mother’s Work History Prior to Random Assignment. Impacts on focal children differed significantly across the three work history subgroups in two areas: school performance and health status (Exhibit 4.7). For both sets of outcomes, the most favorable impacts were for the subgroup with the most work history prior to random assignment.

For children in the least work history subgroup, the statistically significant impacts were unfavorable. In this subgroup, focal children in the Welfare Reform group had lower school performance and less access to routine medical care than their Traditional Welfare group counterparts.

Exhibit 4.6
Impacts on Child Outcomes
for Subgroups Defined by TANF Ongoing or Applicant Status^a
for Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Education					
School Performance					
School performance scale (1-5) ^d	4.3	0.1	4.1	0.0	
Performing "very well" in school (%)	57.2	5.0	49.4	-0.3	
Performing poorly in school (%) ^e	2.2	-0.2	10.2	-1.2	
Repeated Grade—since random assignment					
Repeated any grade (%)	10.8	0.1	14.6	-0.9	
Number of repeated grades	0.1	0.0	0.2	0.0	
Special Education—since random assignment					
Received special education (%)	9.3	2.9	11.4	1.9	
School Dropout—since random assignment (ages 10+)					
Dropped out of school (%)	1.1	1.2	5.4	0.4	
School Attendance—past month					
Number of absences	1.2	0.1	1.0	-0.1	
Absence scale (0-4) ^f	0.7	0.0	0.6	0.0	
"High" level of absences (%)	3.2	2.7*	3.9	-0.9	†
Tardiness scale (0-4) ^f	0.7	0.1	0.8	-0.2**	†
Engagement in School					
School engagement scale (1-3) ^g	10.4	0.1	10.3	-0.1	
"High" level of school engagement ^g (%)	47.4	-0.4	39.7	-0.5	
"Low" level of school engagement ^g (%)	8.6	-0.5	11.2	1.0	
Social Behavior and Emotional Well-Being					
Positive Behavior					
Social Competence Subscale (0-70) ^h	58.5	1.1	57.4	-0.1	

Exhibit 4.6
Impacts on Child Outcomes
for Subgroups Defined by TANF Ongoing or Applicant Status^a
for Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Behavior Problems—past 3 months					
Total number of problems (0-56) ⁱ	12.0	-0.9	11.9	-0.4	
Internalizing problems (0-14)	2.1	-0.3	1.9	-0.1	
Externalizing problems (0-22)	5.7	-0.3	5.9	-0.2	
School Disciplinary Actions—since random assignment					
Expelled (%)	0.6	0.3	0.8	0.0	
Suspended (%)	3.5	1.5	7.8	0.4	
Suspended or expelled (%)	3.7	1.8	7.9	0.4	
Criminal Behavior (ages 10+)					
Ever arrested (%)	0.5	2.4	0.5	1.4	
Ever convicted of crime (%)	0.2	0.9	0.6	0.4	
Health and Safety					
Health Status					
Health status scale (1-5) ^j	4.1	0.2***	4.2	0.0	††
“Excellent or good” health (%)	74.1	6.8*	76.5	-2.5	††
“Fair or poor” health (%)	8.8	-2.2	4.5	1.5	
Injury or Accident—since random assignment					
Injury or accident requiring care (%)	21.5	-3.5	27.7	0.9	
Medical or Dental Care					
Has access to routine care (%)	93.1	-0.6	94.8	-2.2	
Has access to sick care (%)	91.8	-1.7	89.6	-0.5	
Uses emergency room for care (%)	8.7	1.4	7.4	-2.0	
Has never seen a doctor (%)	0.0	0.0	0.0	0.0	
Time since last saw doctor (1-5 scale) ^k	0.7	0.0	0.7	0.0	

Exhibit 4.6
Impacts on Child Outcomes
for Subgroups Defined by TANF Ongoing or Applicant Status^a
for Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Has never seen a dentist (%)	5.4	0.1	4.0	2.0	
Time since last saw dentist (1-5 scale) ^k	0.9	-0.1	0.9	0.0	
Sample size (total = 1,679)					

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

- a Ongoing clients are defined as clients who were receiving welfare in the month Indiana began its welfare reform program (May 1995) (n=1,102). Applicants are defined as clients who began receiving welfare in any subsequent month during the first year of the program (June 1995 – April 1996) (n=577).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.
- e “Poor” school performance = “below average” or “not well at all.”
- f Absence and tardiness scale: 0=none, 1=1 to 2 days, 2=3 to 4 days, 3=5 to 10 days, 4= more than 10 days.
- g School engagement scale=4 items, each rated on a 3-point scale: 1=not engaged, 2=sometimes engaged, 3=often engaged. “High” engagement =score of 8.4 or higher. “Low” engagement = score of 5.7 or lower.
- h Social competence subscale=7 behaviors, each rated on 10-point scale, from “not at all like my child” to “totally like my child.” A higher score indicates greater social competence.
- i Behavior Problems Index=28 behavior problems, each rated on 3-point scale: 0=not true, 1=sometimes true, 2=often true. A higher score indicates more behavior problems.
- j Health status scale: 5=excellent, 4=very good, 3=good, 2=fair, 1=poor.
- k Scale for amount of time since doctor, dentist was seen: 1=less than 1 year, 2=1 to 2 years, 3=2 to less than 3 years, 4=3 or more years, 5=never.

Exhibit 4.7
Impacts on Child Outcomes
for Subgroups Defined by Mother's Employment History^a
for Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Education							
School Performance							
School performance scale (1-5) ^d	4.2	-0.2*	4.2	0.0	4.1	0.2**	††
Performing "very well" in school (%)	54.2	-11.2***	52.7	3.9	47.1	17.0***	†††
Performing poorly in school ^e (%)	6.3	-1.3	8.6	0.3	8.0	-1.8	
Repeated Grade—since random assignment							
Repeated any grade (%)	10.0	3.6	19.1	-4.7	10.5	-1.1	
Number of repeated grades	0.1	0.0	0.2	0.0	0.1	0.0	
Special Education—since random assignment							
Received special education (%)	8.3	4.2	12.2	0.5	12.3	1.7	
School Dropout—since random assignment (ages 10+)							
Dropped out of school (%)	2.3	0.4	4.4	0.1	5.9	1.5	
School Attendance—past month							
Number of absences	0.9	0.0	1.2	0.0	1.2	0.1	
Absence scale (0-4) ^f	0.5	0.0	0.7	0.0	0.7	0.0	
"High" level of absences (%)	2.4	1.1	5.7	-1.5	2.7	1.6	
Tardiness scale (0-4) ^f	0.7	-0.2	0.8	0.0	0.9	-0.1	
Engagement in School							
School engagement scale (1-3) ^g	10.3	0.0	10.5	-0.2	10.2	0.1	
"High" level of school engagement ^g (%)	42.4	-0.5	44.0	-5.0	39.3	5.8	
"Low" level of school engagement ^g (%)	11.2	0.6	8.8	0.6	11.4	0.2	

Exhibit 4.7
Impacts on Child Outcomes
for Subgroups Defined by Mother’s Employment History^a
for Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Social Behavior and Emotional Well-Being							
Positive Behavior							
Social Competence Subscale (0-70) ^h	57.4	0.0	57.8	-0.3	58.2	1.6	
Behavior Problems—past 3 months							
Total number of problems (0-56) ⁱ	11.7	-0.4	12.0	0.3	12.4	-1.9**	
Internalizing problems (0-14)	1.9	0.0	2.0	-0.1	2.1	-0.5***	
Externalizing problems (0-22)	5.8	-0.4	5.8	0.2	6.0	-0.7	
School Disciplinary Actions—since random assignment							
Expelled (%)	0.3	0.0	0.9	0.0	1.3	0.4	
Suspended (%)	4.7	1.3	6.7	1.1	8.2	-0.5	
Suspended or expelled (%)	4.2	1.4	7.3	1.0	8.7	0.0	
Criminal Behavior (ages 10+)							
Ever arrested (%)	0.5	2.2	-0.5	2.8	1.5	-0.2	
Ever convicted of crime (%)	0.9	0.6	-0.3	2.7	0.6	-1.8	
Health and Safety							
Health Status							
Health status scale (1-5) ^j	4.1	0.0	4.2	0.0	4.1	0.3***	††
“Excellent or good” health (%)	76.5	-4.5	74.8	0.9	75.5	7.9**	†
“Fair or poor” health (%)	6.1	1.7	7.8	0.6	3.3	-2.3	
Injury or Accident—since random assignment							
Injury or accident requiring care (%)	22.9	-2.5	24.3	4.2	31.2	-4.4	
Medical or Dental Care							
Has access to routine care (%)	97.5	-4.6***	92.4	0.5	91.9	-0.5	
Has access to sick care (%)	93.8	-1.1	88.3	0.6	88.2	-2.8	

Exhibit 4.7
Impacts on Child Outcomes
for Subgroups Defined by Mother’s Employment History^a
for Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Uses emergency room for care (%)	8.6	0.1	6.7	0.5	8.4	-4.1	
Has never seen a doctor (%)	0.0	0.0	0.0	0.0	0.0	0.0	
Time since last saw doctor (1-5 scale) ^k	0.7	0.0	0.6	0.1	0.7	0.0	
Has never seen a dentist (%)	4.7	-0.4	4.7	1.4	3.8	3.9*	
Time since last saw dentist (1-5 scale) ^k	0.8	0.0	0.9	0.0	1.0	-0.1*	
Sample size (total = 1,679)							

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

- a “Least” work experience=0 quarters employed in 5 quarters prior to random assignment (n=629). “Medium” work experience=2 or 3 quarters employed in 5 quarters prior to random assignment (n=603). “Most” work experience=4-5 quarters employed in 5 quarters prior to random assignment (n=447).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.
- e “Poor” school performance = “below average” or “not well at all.”
- f Absence and tardiness scale: 0=none, 1=1 to 2 days, 2=3 to 4 days, 3=5 to 10 days, 4= more than 10 days.
- g School engagement scale=4 items, each rated on a 3-point scale: 1=not engaged, 2=sometimes engaged, 3=often engaged. “High” engagement =score of 8.4 or higher. “Low” engagement = score of 5.7 or lower.
- h Social competence subscale=7 behaviors, each rated on 10-point scale, from “not at all like my child” to “totally like my child.” A higher score indicates greater social competence.
- i Behavior Problems Index=28 behavior problems, each rated on 3-point scale: 0=not true, 1=sometimes true, 2=often true. A higher score indicates more behavior problems.
- j Health status scale: 5=excellent, 4=very good, 3=good, 2=fair, 1=poor.
- k Scale for amount of time since doctor, dentist was seen: 1=less than 1 year, 2=1 to 2 years, 3=2 to less than 3 years, 4=3 or more years, 5=never.

For children in the medium work history subgroup, welfare reform produced no statistically significant impacts.

Welfare reform produced mostly favorable impacts for children in the most work history subgroup. Welfare Reform group focal children in this subgroup had higher school performance, fewer behavior problems, and better health than Traditional Welfare group children in the same subgroup.

The fact that impacts were most favorable for the subgroup with the most work history does not necessarily mean that Indiana's welfare program produced better impacts for relatively less disadvantaged children. Contrary to expectations, the average outcome levels for the three subgroups are not systematically different, as can be seen by comparing the numbers across the three Traditional Welfare group columns in Exhibit 4.7.

4.4 Impacts on Subgroups: Adolescents

The child survey measured fewer outcomes for adolescents than focal children and found that welfare reform produced no clear differences in impacts across subgroups for adolescents.

Subgroups Defined by Gender. Impacts on male and female adolescents differed significantly on only one outcome: adolescent boys had larger unfavorable impacts than adolescent girls on involvement with police (Exhibit 4.8).

For adolescent males, the only statistically significant impact was for police involvement. Parents in the Welfare Reform group reported that close to one-third (31 percent) of their adolescent male children had some involvement with the police since random assignment, compared with 21 percent of adolescent males in the Traditional Welfare group.

For adolescent females, the only statistically significant impacts were for school performance. A smaller proportion of parents in the Welfare Reform group than in the Traditional Welfare group indicated that their adolescent girls were performing very well in school.

Exhibit 4.8
Impacts on Child Outcomes
for Subgroups Defined by Gender^a
for Adolescent Children^b

Outcome	Females		Males		Difference in Impacts Across Subgroups ^d
	Traditional Welfare Group Average	Impact ^c	Traditional Welfare Group Average	Impact	
Education					
School Performance					
School performance scale (1 to 5) ^e	3.9	-0.2*	3.5	-0.2	
Performing "very well" in school (%)	43.0	-10.3**	25.3	-3.1	
Performing poorly in school ^f (%)	11.3	2.4	19.0	3.7	
School Dropout—since random assignment					
Dropped out of school (%)	6.1	1.8	5.0	2.0	
Social Behavior and Emotional Well-Being					
School Disciplinary Actions—since random assignment					
Expelled (%)	5.4	2.5	15.3	-0.8	
Suspended (%)	24.4	0.0	42.9	-5.3	
Suspended or expelled (%)	25.1	0.6	45.4	-3.3	
Criminal Behavior					
Ever involved with police (%)	14.3	-1.2	21.2	9.7**	††
Health and Safety					
Teen Births—since random assignment					
Had or fathered a baby (%)	5.6	-0.7	3.1	-2.0	
Sample size (total = 1,126)					

Source: *Indiana 5-Year Follow-Up Survey*

- a Females (n=582); males (n=539); gender information missing for children of 5 respondents.
- b Adolescent sample includes custodial (n=977) and non-custodial (n=149) adolescent children.
- c A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as:
 * = 10 percent, ** = 5 percent, *** = 1 percent.
- d An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- e School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.
- f "Poor" school performance = "below average" or "not well at all."

The average level of school performance was also lower for adolescent girls in the Welfare Reform group than for those in the Traditional Welfare group.

As with focal children, adolescent girls generally had more favorable *outcomes*, including better school performance, lower rates of school expulsion and suspension, and lower rates of criminal behavior, than adolescent boys.

Subgroups Defined by Ongoing or Applicant Status. Impacts differed significantly across adolescents in ongoing and applicant subgroups on only one outcome: adolescents in ongoing cases had larger unfavorable impacts on school performance than adolescents in applicant cases (Exhibit 4.9).

Adolescents in ongoing cases had unfavorable impacts on both school performance and involvement with police. Ongoing adolescents in the Welfare Reform group, compared to ongoing adolescents in the Traditional Welfare group, had lower average school performance, were less likely to be performing very well in school, and had higher rates of police involvement.

For adolescents in applicant cases, the only statistically significant impact was for school suspensions. Welfare Reform group adolescent applicants were more likely to be suspended from school than Traditional Welfare group adolescent applicants.

Subgroups Defined by Mother's Employment History Prior to Random Assignment. For adolescents there were no statistically significant impact differences across work history subgroups (Exhibit 4.10).

Adolescents in the least work history subgroup had unfavorable impacts on school performance. Welfare Reform group adolescents in this subgroup had lower average school performance and were less likely to be performing very well in school than their Traditional Welfare group counterparts.

Exhibit 4.9
Impacts on Child Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Adolescent Children^b

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^d
	Traditional Welfare Group Average	Impact ^c	Traditional Welfare Group Average	Impact	
Education					
School Performance					
School performance scale (1 to 5) ^e	3.7	0.1	3.7	-0.3***	†
Performing "very well" in school (%)	38.4	-2.5	32.3	-7.9**	
Performing poorly in school ^f (%)	15.5	-2.7	15.0	5.0	
School Dropout—since random assignment					
Dropped out of school (%)	4.9	1.7	5.8	2.0	
Social Behavior and Emotional Well-Being					
School Disciplinary Actions—since random assignment					
Expelled (%)	6.5	-3.0	12.0	2.0	
Suspended (%)	31.7	9.5*	34.5	-0.3	
Suspended or expelled (%)	29.4	-6.2	37.8	0.0	
Criminal Behavior					
Ever involved with police (%)	19.8	-0.1	16.8	5.2*	
Health and Safety					
Teen Births—since random assignment					
Had or fathered a baby (%)	4.0	-0.9	4.6	-1.4	
Sample size (total = 1,126)					

Source: *Indiana 5-Year Follow-Up Survey*

- a Ongoing clients are defined as clients who were receiving welfare in the month Indiana began its welfare reform program (May 1995) (n=356). Applicants are defined as clients who began receiving welfare in any subsequent month during the first year of the program (June 1995 – April 1996) (n=770).
- b Adolescent sample includes custodial (n=977) and non-custodial (n=149) adolescent children.
- c A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- d An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- e School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.
- f "Poor" school performance = "below average" or "not well at all."

Exhibit 4.10
Impacts on Child Outcomes
for Subgroups Defined by Mother’s Employment History^a
for Adolescent Children^b

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^d
	Traditional Welfare Group Average	Impact ^c	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Education							
School Performance							
School performance scale (1 to 5) ^e	3.8	-0.2*	3.7	-0.2	3.5	-0.1	
Performing "very well" in school (%)	35.9	-8.7*	30.9	-0.5	35.1	-8.3	
Performing poorly in school ^f (%)	11.6	3.3	15.4	3.1	21.7	1.3	
School Dropout—since random assignment							
Dropped out of school (%)	5.6	0.5	6.4	2.8	4.4	3.8	
Social Behavior and Emotional Well-Being							
School Disciplinary Actions—since random assignment							
Expelled(%)	8.1	1.9	9.3	-0.2	15.8	-1.5	
Suspended (%)	29.0	1.1	36.7	-8.3	38.1	-4.5	
Suspended or expelled (%)	30.9	1.0	38.5	-7.8	39.2	-0.2	
Criminal Behavior							
Ever involved with police (%)	12.5	5.0	20.8	-0.3	23.8	6.2	
Health and Safety							
Teen Births – since random assignment							
Had or fathered a baby (%)	5.3	-2.2	3.6	-0.1	3.7	-0.8	
Sample size (total = 1,126)							

Source: *Indiana 5-Year Follow-Up Survey*

a “Least” work experience=0 quarters employed in 5 quarters prior to random assignment (n=522). “Medium” work experience=2 or 3 quarters employed in 5 quarters prior to random assignment (n=329). “Most” work experience=4-5 quarters employed in 5 quarters prior to random assignment (n=275).

b Adolescent sample includes custodial (n=977) and non-custodial (n=149) adolescent children.

c A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

d An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.

e School performance scale: 5=very well, 4=well, 3=average, 2=below average, 1=not well at all.

f “Poor” school performance = “below average” or “not well at all.”

For adolescents in the medium work history and most work history subgroups, none of the estimated impacts were statistically significant.

4.5 Conclusion

A key hypothesis regarding how Indiana's welfare reform program would lead to improved outcomes for children was that by increasing mothers' employment, the program would lead to an improvement in family economic circumstances. The possible links between parent employment and income and child outcomes included:

- Reduced parent stress associated with an increase in family resources;
- Improved parenting behavior that better supported children's development and learning (as a result of reduced stress and better parent psychological well-being);
- More time in quality child care settings and structured out-of-school activities; and
- Better health care for children (and consequently better health outcomes) due to maternal employment and increased family income.

Given the absence of program impacts on total family income and most of the other outcomes examined in Chapter 3, it is not surprising that Indiana's program had almost no measured impacts on focal children. The only program impact for focal children was negative: an increase in arrests (from 0.5 percent to 2.2 percent) for the subset of focal children ages 10 to 12. Given the number of outcomes examined, the existence of one statistically significant impact may not indicate a real effect of the program.

The absence of systematic unfavorable impacts on focal children is important for policy. One concern about welfare reform programs is that increasing maternal employment could adversely affect children, mediated through variables such as increased parental stress (associated with more hours of work) or reduced child time with parents and more time in day care arrangements of unknown quality. The study did not find evidence that maternal employment had negative effects on focal children.

For the smaller number of impacts measured for adolescents, the only program impact was an unfavorable effect on school performance. This impact was larger for adolescents in ongoing welfare cases (as opposed to applicants). The impact is small in terms of effect size,

but may be a real effect (as opposed to a chance artifact of multiple significance tests), especially in light of research from other states showing some adverse effects of welfare reform on adolescents. Other outcomes, however, showed no evidence of adverse effects on adolescents.

Chapter 5

Impacts on Children’s Environments: The Home, Stability, Father Involvement, and Child Care

This chapter examines the impacts of Indiana’s welfare reform program on children’s environments—the home environment, including parenting, family relationships, household stability and father involvement, and the child care environment. The theory underlying Indiana’s welfare reform experiment is that by changing a family’s economic circumstances, a program can affect children’s environments. Changes in children’s environments may in turn affect children’s outcomes. For example, increased family resources are assumed to lead to changes in children’s care environments, in and out of the home, and these changes in care may lead to improved child development and academic performance.

As shown in Chapter 3, Indiana’s welfare reform program has increased parental employment but not overall family income. Chapter 4 revealed that the program had few impacts on focal children’s educational performance, social behavior, emotional well-being, and health and safety. Evidence on how the program has affected children’s environments is important in developing hypotheses about why the program has had so little effect on children’s outcomes. This chapter presents the results of analyses that address the following questions about program impacts on children’s environments:

- How did Indiana’s welfare reform affect the stability of focal children’s home environment and the involvement of nonresident fathers?
- How did welfare reform affect the extent to which the home environment provides support for children’s development and learning?
- How did welfare reform affect parenting behavior?
- How did welfare reform affect family functioning, including relationships among family members?
- How did welfare reform affect the types of out-of-school care arrangements that families use for their children?

The chapter presents overall program effects in four major domains: the home environment and parenting; maternal mental health and domestic abuse; household stability and nonresident father involvement; and child care. The chapter first discusses overall program

impacts for the sample of families with a focal child. It then describes differences in impacts for subgroups.

Summary of Key Findings

Indiana’s welfare reform program had little impact on the outcomes examined in this chapter. Given the program’s modest impacts on the direct targets of welfare reform policy (discussed in Chapter 3), it is not surprising that the program had little impact on outcomes that are likely to have been affected only indirectly.

The program had no significant impacts on measures of the home environment, including cognitive stimulation and emotional support. The program did, however, appear to decrease parental aggravation.

Mothers’ mental health was improved as a result of welfare reform. Mothers in the Welfare Reform group had lower average scores on a scale measuring depressive symptoms, indicating better mental health on average.

Welfare reform had few impacts on household stability. Indiana’s welfare reform program increased the number of jobs parents held since random assignment and increased the number of children who changed schools. The program, however, had no significant effect on six other measures of stability.

Children’s involvement with nonresident fathers was not affected by welfare reform. Neither contact with fathers nor financial support from fathers was affected by Indiana’s program.

Welfare reform increased the average amount of time that children spent in child care and increased the number of child care providers and child care arrangements that children experienced. These impacts are all consistent with the increased employment of mothers shown in Chapter 3. As mothers work more, they are more likely to use child care, and the more child care they use, the more providers and arrangements they are likely to use. Welfare reform increased the use of both formal and informal child care arrangements. However, the increase in

the average time spent in child care was small, less than 2 hours per week. It seems unlikely that an increase of this size would have large effects on other aspects of children's development.

In addition to the findings relating to *impacts* described above, some of the *outcomes* measured in the survey deserve mention:

- Nearly half of the women responding to the survey admitted having been abused by their partner since random assignment. Nearly one-third had been abused within the previous year, suggesting that the problem has not improved over time. Much of the abuse reported was verbal, although nearly one-fourth of respondents reported that their partner had physically harmed them since random assignment.
- More than one-third of the mothers interviewed were clinically depressed.
- More than one-third of the children with an absent father had no contact with their father within the past year, and only about one-fourth were receiving money regularly from their nonresident father.
- On most measures of parenting, cognitive stimulation, and emotional support, the evidence suggests that parents are making efforts to meet their children's developmental needs.

5.1 Impacts on the Home Environment and Parenting

In considering the program's impacts on focal children, who were between 5 and 12 years old at the time of the survey, there originally were contrasting hypotheses about how changes in family economic self-sufficiency might affect the home environment. If increased employment led to higher family income or improved mental health for mothers, the result might be better parenting practices (for example, lower aggravation or stress for parents and more emotional support and cognitive stimulation for children). Alternatively, increased maternal employment could lead to greater stress for parents trying to balance work and family demands, and trying to find child care that accommodates their work schedule and provides a safe and caring environment for their child. This stress, in turn, could adversely affect parenting behavior and family relationships.

The Home Environment

Measures of the home environment, shown in Exhibit 5.1, include support for children's cognitive and emotional development, support for learning, and family routines.

Exhibit 5.1

Impacts on the Home Environment and Parenting for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^a	Is the Impact Favorable?
Home Environment					
HOME—Short-Form					
Total score(1-19) ^b	13.6	13.4	0.2	0.06	
Cognitive stimulation(1-12) ^c	8.0	8.0	0.1	0.03	
Emotional support(1-7) ^d	5.3	5.3	0.0	0.04	
Family support for learning					
Take child to library more than once per month (%)	40.7	41.4	0.7	0.02	
Never take child to library (%)	38.7	39.5	0.8	0.02	
Family routines					
Family routines scale(1-4) ^e	3.3	3.3	0.0	0.00	
Parenting					
Parent warmth scale(1-4) ^f	2.8	2.7	0.0	0.09	
Parent harshness scale(1-4) ^g	1.5	1.6	-0.1	0.04	
Parenting aggravation scale (1-4) ^h	1.6	1.7	-0.1**	0.12	Yes
Parental monitoring scale(1-5) ⁱ	4.7	4.7	0.0	0.03	
Sample size (total = 1,679)	819	860			

Source: Indiana Child Well-Being Survey administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

- a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- b Modified HOME—SF total score=19 items from cognitive stimulation scale and emotional support scale, each coded as 0/1.
- c Modified HOME—SF cognitive stimulation scale=12 items, each rated on a 0/1 scale: books in home, parent reading to child, musical instrument in home, newspaper in home, child reading on own for enjoyment, family visits to museums, family attendance at musical/theatrical performance, discussing child's TV programs with him or her, adequate lighting in home, minimal clutter in home, reasonable cleanliness of home, safety of home building.
- d Modified HOME—SF emotional support=7 items, each rated on a 0/1 scale: child responsibilities in home (2 items), spanking of child when child gets angry, spanking child when parent is angry, family meal with both mother and father, family get-together with relatives/friends, time with father in outdoor activities.
- e Family routines scale=5 items, each rated on a 4-point scale: 1=never, 2=1 to 2 days a week, 3=3 to 5 days a week, 5= every day or nearly every day.
- f Parent warmth scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3=7 times in last week, 4= 8 or more times in the last week.
- g Parent harshness scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3=7 times in last week, 4= 8 or more times in the last week.
- h Parent aggravation scale=4 items, each rated on a 4-point scale: 1=none of the time, 2=some of the time, 3=most of the time, 4=all of the time. A higher score indicates a higher level of aggravation.
- i Parent monitoring scale=4 behaviors, each rated on a 5-point scale: 1=almost never, 2=sometimes, 3=often, 4=almost always, 5=always.

Information on cognitive and emotional development was collected using the Home Observation for Measurement of the Environment (HOME) Inventory, which measures aspects of parenting behavior and home resources that research has shown are linked to positive child development.

Only selected items from the HOME inventory were used in the evaluation. Seven items measured emotional support provided to the child. These items addressed issues such as: (a) children's responsibility for household tasks, (b) the frequency of meals with both parents, (c) time spent in outdoor activities with a father or father-figure, and (d) the avoidance of spanking as a method of discipline. Twelve items measured cognitive stimulation provided in the home. These items included: (a) the regular presence of a newspaper in the home, (b) the frequency with which the child reads for enjoyment, (c) the number of books that belong to the child, (d) the frequency with which parents read aloud to the child, (e) the presence of musical instruments in the home that the child can use, (f) family attendance at musical performances, (g) family visits to museums, (h) family discussions about what the child watches on TV, and (i) physical conditions of the home (such as adequacy of light, lack of clutter, and dangerous conditions). Items on the inventory were used to form the two constructs, emotional support and cognitive stimulation, and to calculate a total that combines all of the items in a single score. Findings for these measures are shown in Exhibit 5.1.

Cognitive Stimulation. For the measure of cognitive stimulation in the home, the highest possible score was 12 points, with a higher score indicating a higher level of stimulation. The homes of the focal children in the Traditional Welfare group received an average score of 8.0, meaning that they met 8 of the 12 criteria that defined cognitive support. Indiana's program had no impact on the level of cognitive stimulation in the home.

Emotional Support. The highest possible score on the measure of emotional support provided by the home was 7 points. The homes of families in the Traditional Welfare group received an average score of 5.3, which indicates that they met the criteria defined in five of the seven items and provided a high level of emotional support for their children. Welfare reform had no impact on the level of emotional support provided to children in the home.

Total HOME Score. Because the study found no program impacts on either cognitive stimulation or emotional support in the home, the combined total score also showed no impact. Average scores for the Welfare Reform and Traditional Welfare groups were between 13 and 14 out of a possible 19 points, meaning that households scored positively on just over 70 percent of the items.

Family Involvement in Children’s Learning. Through an effect on family self-sufficiency or maternal employment, welfare reform might be expected to increase families’ awareness of and support for the importance of learning. One way a family could demonstrate this support was by taking the child to the library. Library visits were measured in the survey as an indicator of the family’s engagement in children’s intellectual development.

Although the majority of families in the Traditional Welfare group had taken their child to the library several times during the previous year, 40 percent had never gone to the library with their child. About forty percent of parents in the Traditional Welfare group reported going to the library with their child more than once a month, and another 20 percent reported taking their child several times a year. Welfare reform had no impact on the frequency with which families took their children to the library.

Family Routines. One hypothesis about welfare reform is that it may help children because families with an employed parent may be more likely to follow set routines. Children in families with an employed parent may have more structured and organized lives which, in turn, might lead to better educational and behavioral outcomes for the children. The survey measured family routines with a set of five questions about how often: (a) the family eats breakfast at a regular time, (b) the family eats dinner at a regular time, (c) the family eats dinner together, (d) children go to bed at a regular time, and (e) the children do special things at bedtime. The score for family routines is the average frequency across these five items, with frequency being rated from 1 (“never”) to 4 (“every day”). Thus, on the family routines scale, a higher score indicates more regularity.

Families in the Traditional Welfare group rated themselves as having a high level of regularity in family routines. Their average score was 3.3 out of 4 points, which indicates

that they followed a regular routine more than 3 to 5 days every week. Families in the Welfare Reform group had the same average score, indicating a similar level of routine.

Parenting

The survey measured four aspects of parenting: parental warmth, harshness, aggravation with parenting, and monitoring of the child's activities.

Parental Warmth and Harshness. To assess the tone or affect of parenting behavior, the survey asked parents about both punitive and affectionate behavior with their children. Three items described warm, nurturing behavior by parents—showing physical affection, offering praise to a child for doing something worthwhile, and saying something positive about the child to someone else. Three items described harsh behavior towards a child—scolding or yelling, getting angry, and spanking. For each item, parents indicated how often they had engaged in the behavior during the past week (from “never” to “more than 20 times”). The reported frequency of each behavior was then recoded as falling within one of four levels: never, 1 to 6 times, 7 times, or 8 or more times in the past week. A score for parental warmth was computed by taking the average score across the three items, and a score for parental harshness was computed by taking the average score across the three items. For warmth, a higher score means greater warmth. For harshness, a higher score indicates greater harshness.

Traditional Welfare group parents rated themselves as demonstrating a high level of warm behavior with their children. Their average score for parental warmth was 2.7 on a scale with 3 representing a frequency of at least 7 times in the past week (Exhibit 5.1). No program impact on parental warmth was found.

Parents in both groups described themselves as being harsh with a child less often than they described themselves as demonstrating warmth. The average score for harshness for parents in the Traditional Welfare group was 1.6, meaning that in the previous week they had used some form of harsh punishment less than 6 times. No program impact was found for parental harshness.

Parental Aggravation. As discussed above, one hypothesis about how increased employment affects parenting is that it may lead to a higher level of parental stress. To test this hypothesis, the survey included a scale of aggravation with the parenting role to measure stress. Parents were asked to rate themselves on four statements that indicate aggravation with being a parent, such as “there are things your child does that really bother you a lot” or “your child is much harder to care for than most.” For each statement, a parent rated how often (ranging from “none of the time” to “all of the time”) he or she agreed with the statement. A total score for parental aggravation was computed by taking the average score across the four items. The total ranged from 1 to 4, with a higher score representing a higher level of aggravation.

On average, parents in the Traditional Welfare group rated themselves as experiencing a relatively low level of aggravation in their role as parents. Their average total score across the four items was 1.7, which translates into a frequency between “some of the time” and “none of the time.” A significant program impact was found for parent aggravation. Parents in the Welfare Reform group reported a lower level of aggravation than parents in the Traditional Welfare group. Although the difference between the two groups of parents was statistically significant, the impact translates into a relatively small and possibly non-meaningful effect size of 0.12.

This finding disproves one of the mediating hypotheses, that increased parent employment results in increased stress for parents. The fact that families in the Welfare Reform group experienced less, not more stress may help explain the absence of negative impacts for children.

Parental Monitoring. A fourth aspect of parenting examined was the extent to which parents monitored a child’s activities outside of the home. Parents reported how often they knew whom their child was with, where he or she was, and whether the child had returned home when expected. In addition, parents were asked how often they knew whether their child had completed his or her homework assignments. For each of these four items, parents rated their level of supervision on a 5-point scale ranging from “almost never” to “always.”

Parents in the Traditional Welfare group rated themselves as maintaining a high level of supervision of their child. Their score was 4.7 on a 5-point scale, meaning that they believed that they nearly always knew about their child’s activities outside the home and the child’s

schoolwork. The study found no significant difference between parents in the Welfare Reform group and parents in the Traditional Welfare group on level of parental monitoring.

5.2 Impacts on Maternal Mental Health and Domestic Abuse

Exhibit 5.2 presents impacts on the extent of depressive symptoms among mothers in the sample, and on the incidence of domestic abuse.

Maternal Mental Health

Maternal psychological health could affect children's well-being through differences in parent affect and parenting practices. The survey measured maternal psychological well-being via self report using the Center for Epidemiological Studies–Depression (CES–D) Scale. The CES–D measure includes 20 questions about a respondent's feelings about his or her life in the past week (e.g., how often he or she felt like not eating, or how often he or she felt fearful, lonely, or sad). Positive items included questions about feelings of hopefulness toward the future and enjoyment of life. Responses to questions on the CES–D scale ranged from “rarely” (less than 1 day in the past week) to “most days” (5 to 7 days in the previous week). Items were coded so that higher scores indicated more depressive symptoms. In total, when points to all 20 questions were summed, the CES–D scale ranged from 0 to 60, with a score of 16 or higher indicating risk of clinical depression.

Traditional Welfare group members scored 15.1 on the CES–D, less than 1 point below the clinical cutoff for depression (Exhibit 5.2). Members of the Welfare Reform group scored a full point lower than Traditional Welfare group members (indicating fewer depressive symptoms), and the difference was statistically significant. Although the effect size is small (0.08), even a small difference in depression could have a large effect on developmental outcomes for children. An alternative way to view CES–D scores is to examine the percentage of participants with a score high enough to indicate risk of clinical depression. Approximately 40 percent of mothers in the Traditional Welfare group met this criterion. Indiana's program had no impacts on this measure of mothers' mental health.

Exhibit 5.2

Impacts on Maternal Mental Health and Domestic Abuse for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^a	Is the Impact Favorable?
Maternal Mental Health					
CES-D total score	14.2	15.1	-1.0*	0.08	Yes
At risk of clinical depression (%) ^a	37.0	40.7	-3.7	0.08	
Domestic Abuse					
Abuse by partner^b—since random assignment					
Verbal abuse (%)	46.6	42.8	3.8	0.08	
Controlling behavior (%)	36.5	35.0	0.8	0.02	
Threat of physical harm (%)	25.4	25.0	0.6	0.01	
Forced into sexual activity (%)	23.4	22.7	0.7	0.02	
Physical harm (%)	6.8	3.8	3.0***	0.14	No
Abuse by partner^b—past year					
Verbal abuse (%)	23.3	20.5	2.8	0.07	
Controlling behavior (%)	31.1	29.6	1.4	0.03	
Threat of physical harm (%)	25.3	24.4	-0.9	0.02	
Forced into sexual activity (%)	14.6	16.8	-2.2	0.06	
Physical harm (%)	11.9	11.6	0.3	0.01	
Sample size (total = 1,679)	1.9	1.6	0.3	0.02	
	10.0	10.0	0.0	0.00	

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

a Defined as a score of 16 or higher on the CES-D.

b Includes current or ex-partner.

Domestic Abuse

To understand how increased economic self-sufficiency affects parents' relationships, it is important to remember that most parents in the study were single mothers. The effects of increased parental employment and higher income on parents' relationships can be either positive or negative. On the one hand, mothers who become employed and earn more will be more financially independent and may experience improved mental health and a more positive outlook on life. These changes could lead to more positive and healthy relationships with spouses or partners. On the other hand, these same changes in employment and income could increase mothers' independence, which for some women could strain relationships with partners.

As one test of whether welfare reform affected mothers' relationships with partners, the survey asked about any abusive relationships over the entire period of time since random assignment (approximately 5 years), and within the past year. Different types of abuse were distinguished, including verbal abuse (put-downs, name-calling); controlling behavior; threats of physical harm; forced sexual activity; and actual physical harm (slaps, kicks, hits). In the parent interview, respondents were asked about abuse from anyone and abuse specifically from a partner or ex-partner. Exhibit 5.2 presents findings for these measures of abuse by a partner or ex-partner.

Mothers in the Traditional Welfare group reported high levels of abuse, both cumulatively since random assignment and within the past year. More than 40 percent of respondents in this group reported being abused by a partner or ex-partner since random assignment, and 30 percent reported experiencing abuse in the past year. Although verbal abuse was most common, controlling behavior and threats of physical harm were also common. Twenty percent of respondents reported being physically harmed by a partner or ex-partner since random assignment, and 10 percent reported such harm during the past year. Relatively few respondents reported sexual abuse.

Welfare reform had no impacts on the overall incidence of abuse. However, the study found a significant program impact on the incidence of forced sexual activity following random

assignment, even though this form of abuse was relatively rare. Significantly more mothers in the Welfare Reform group (almost 7 percent) reported having been forced to have sex than mothers in the Traditional Welfare group (almost 4 percent). This difference represents a small effect size (0.14). Although the effect size does not reach the conventional level of meaningfulness, even small differences in rates of sexual abuse can have serious physical and psychological consequences for the victims. Because the study found no significant impacts on other measures of abuse, it is unclear whether this finding represents a real negative consequence of welfare reform or a spurious statistical result.

5.3 Impacts on Household Stability and Nonresident Father Involvement

Exhibit 5.3 presents program impacts on stability and turbulence in the home environment, and nonresident father involvement in children's lives.

Household Stability

Although a high level of household instability may harm children, some change might be positive. For example, families moving more often or mothers changing cohabiting status more frequently could increase stress for children. However, a new residence could mean a better school for the child, and a cohabiting transition could mean another parent in the household. The net effect of increased instability, therefore, is not clear. It is reasonable to expect, however, that the increases in employment caused by welfare reform may increase instability.

Measures of household stability included the number of residential moves, the number of jobs taken by the parents, and the number of parental cohabiting transitions since random assignment. Other measures of stability included whether children had changed schools and whether children had lived apart from their mother since random assignment.

Residential Changes. Families in the Traditional Welfare group moved, on average, 2.2 times following random assignment. In other words, over approximately 5 years, a focal child experienced between two and three housing situations, a relatively high rate of household instability. Welfare reform did not affect the number of residential moves.

Exhibit 5.3
Impacts on Household Stability and Nonresident Father Involvement for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size ^a	Is the Impact Favorable?
Stability of Household					
Residential stability					
Moved since random assignment (%)	78.5	78.0	0.5	0.01	
Number of residential moves—past 2 years (%)	2.2	2.2	0.5	0.00	
Moved in with another family since random assignment (%)	40.3	38.5	1.8	0.04	
Number of jobs since random assignment	1.7	1.6	0.1**	0.10	?
Cohabiting transitions for parent(s) since random assignment					
Married or started living with a partner (%)	44.7	41.5	3.2	0.07	
Divorced or separated or stopped living with a partner (%)	32.3	30.0	2.3	0.05	
Child separations in last 2 years					
Child in foster care (%)	0.7	0.5	0.2	0.03	
Child separated from parent (%)	6.2	5.5	0.7	0.03	
School stability in last 2 years					
Child changed schools (%)	36.2	31.5	4.7**	0.10	?
Nonresident Fathers					
Father in the home (%)	7.8	9.5	1.7	0.06	
Legal paternity established for child (%)	71.3	68.6	2.7	0.06	
Financial support from nonresident father					
Child support order (%)	53.8	52.4	2.5	0.03	
Receiving money via child support office (%)	23.7	24.1	0.4	0.01	
Receiving cash directly from father (%)	27.9	26.8	1.1	0.02	
Receiving money regularly (%)	27.1	26.2	0.9	0.02	
Receiving in-kind support (%)	39.7	39.7	0.0	0.00	
Child's contact with father in past year					
Face-to-face contact (%)	54.5	51.4	3.2	0.06	
Phone or letter contact (%)	50.9	48.1	2.8	0.06	
Number of modes of father involvement(1-4) ^b	1.2	1.1	0.0	0.03	
No contact with father (%)	35.9	37.6	1.7	0.04	
Sample size (total = 1,679)	819	890			

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

- a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.
- b The four modes of involvement included: babysitting for the focal child, caring for the focal child overnight, talking to the focal child on the phone, and writing the focal child a letter or card.

Another measure of residential stability is whether households had to move in with another family because they needed a place to live or needed to reduce their expenses. Thirty-nine percent of families in the Traditional Welfare group reported such a “doubling-up” at least once since random assignment. Welfare reform had no impact on this measure.

Job Changes. As reported in Chapter 3, parents in the Welfare Reform group had higher rates of employment than parents in the Traditional Welfare group. This difference in employment had a significant impact on the number of jobs parents held since random assignment. Parents in the Traditional Welfare group held 1.6 jobs on average following random assignment, compared with 1.7 jobs held by parents in the Welfare Reform group. Although this difference was statistically significant, the effect size was small (0.10). Whether this impact is favorable or unfavorable is unclear. The increase in the number of jobs held could be favorable if later jobs are better quality and lead to greater job satisfaction. The impact could be unfavorable if job changes increase disruptions in family routines.

Cohabiting Transitions. Families also experienced a high level of cohabiting transitions since random assignment. Forty-two percent of Traditional Welfare group respondents got married or started living with a partner following random assignment, and 9 percent did so more than once. In addition, 30 percent of respondents got divorced, separated, or stopped living with someone as a couple since random assignment, with 6 percent doing so more than once. Welfare reform had no impacts on the number of cohabiting transitions.

Parent-Child Separations. A sizeable proportion of focal children (about 6 percent) were separated from their mother for a month or more in the 2 years prior to the survey. These separations, however, were not explained by focal children moving into foster homes, since parents reported that virtually no focal children (about one-half of 1 percent) spent any time in foster care in the 2 years prior to the survey. Nearly all focal children who experienced a separation spent this time with relatives.¹ Welfare reform had no statistically significant impacts on measures of parent-child separations.

¹ Respondents replied that the time away from the parent was spent with the grandparents (43 percent), with the father (38 percent), or with other relatives (23 percent). Nine percent indicated time spent with both the father and with grandparents.

Changes in Schools. Another measure of stability for the child is the number of schools he or she attended following random assignment. Families' frequent moves contributed to changes in schools for the children. Approximately one out of three focal children changed schools at least once in the past 2 years. Children in the Welfare Reform group were more likely than children in the Traditional Welfare group to change schools, possibly a consequence of the impacts on parents' employment. Although the impact was statistically significant, the effect size was small (0.10). Increased school changes may be unfavorable if they disrupt learning because of differences in curricula across schools, or if they impede social development. On the other hand, school changes might be favorable if the moves are intended to be to better schools.

Nonresident Father Involvement

Research suggests that children who have two involved parents have better outcomes than children with only one parent in their lives. The vast majority of focal children (more than 9 out of 10) were not living in the same household as their biological father at the time of the parent interview, although more than half had some contact with their father in the 12 months before the survey.

The study found no program impacts on the proportion of children living with their fathers. Paternity was legally established for about 70 percent of the focal children in both the Welfare Reform and Traditional Welfare groups. Establishing paternity may affect nonresident fathers' emotional and financial contributions to focal children's well-being and development.

Child Support. The evaluation measured both formal and informal forms of child support provided by the biological father, as well as the dependability of that support. Generally speaking, program impacts were not seen for the biological father's financial and in-kind involvement in the focal child's life. Although slightly more than half of all focal children were covered by a child support order, only about one-fourth had received money from the father in the past year or child support through the child support office. That said, slightly more than one-fourth of respondents said that the father paid cash directly to the family for the focal child's expenses, and a similar percentage said they could almost always count on receiving the money.

The involvement of nonresident fathers was also measured by considering in-kind benefits provided by the father. About 40 percent of respondents reported that in the past year the focal child's biological father had bought clothes, gifts, or groceries for the child. Welfare reform had no statistically significant impacts on nonresident fathers' financial support.

Contact Between Nonresident Fathers and Children. Financial involvement captures only one aspect of a nonresidential father's involvement. The amount of contact between the child and his or her biological father is another important aspect of paternal support for the child. Forty-eight percent of focal children in the Traditional Welfare group had seen their biological father during the previous year, and just over half had either talked on the telephone or received a letter from their biological father in the past year. A summary measure was also created to indicate the extent and types of contact the biological father had with the focal child in the past year. The measure, which ranged from 1 to 4, gave 1 point for each of the following types of contact: babysitting for the focal child, caring for the focal child overnight, talking to the focal child on the phone, and sending the focal child a letter or card. Biological fathers of children in the Traditional Welfare group scored, on average, 1.1 on the 4-point scale, which represents a low level of involvement. As with the indicators of financial support, the study found no statistically significant impacts on the measures of nonresident father contact.

5.4 Impacts on Child Care

As parents spend more time working, the need for child care for children under 13 years of age increases. Therefore, an increase in employment due to welfare reform may cause children to spend more time in non-parental care arrangements. To the extent that these arrangements are safe and healthy environments and provide children with experiences that promote and support their development, time in child care may have positive effects on children. On the other hand, if the child care arrangements are of inadequate quality or if children are left unsupervised, an increase in parental employment may result in negative outcomes for children.

Various characteristics of children's non-parental care settings were measured, including the type of care settings the child is in, the hours the child is in care, and the safety of the care settings. In addition, the study examined patterns of child care over a 2-year period to assess

the complexity of the child's care arrangements and the stability of the child's care providers. Findings for program impacts on child care measures are shown in Exhibit 5.4.

Extent of Child Care. The amount of time a child spends in non-parental care was measured by the number of hours he or she was in care during the week prior to the survey. For that week, parents reported the total number of hours the child spent in child care, the number of hours the child spent in his or her primary care arrangement, and the number of hours the child was in self-care (that is, without adult supervision). Because most focal children were in school for the full day (except for some kindergarten-age children who were in school half-day), the total number of hours in care in a week should be less than full-time. If a child was in non-parental care only for the hours between the end of school and the end of a regular work day, the typical number of hours of care would be approximately 2–3 hours a day, or 10–15 hours per week.

Consistent with this expectation, parents in the Traditional Welfare group reported that their children were in care, on average, 12 hours a week. The fact that children were reported to be in their primary arrangement virtually all of the time that they were in care (11 hours a week, on average) is consistent with the finding that most children had only a single primary arrangement. Children in the Traditional Welfare group were reported to be taking care of themselves only 1.3 hours a week, on average.

Because mothers in the Welfare Reform group worked more than mothers in the Traditional Welfare group, children in the former group spent more time in child care. Although statistically significant, the difference was small (1.7 hours a week, on average), as was the effect size (0.09). As noted above, whether more time in child care is a favorable or an unfavorable impact depends in part on the quality of the care.

At the same time, children in the Welfare Reform group spent significantly fewer hours a week in self-care, compared with children in the Traditional Welfare group. This suggests that the parents who worked more were more likely to place their school-age children in child care and less likely to leave their school-age children on their own.

Exhibit 5.4
Impacts on Child Care Arrangements for Families of Focal Children

Outcome	Welfare Reform Group Average	Traditional Welfare Group Average	Impact	Effect Size^a	Is the Impact Favorable?
Extent of Child Care—last week					
Number of hours in child care	13.7	12.0	1.7*	0.09	?
Number of hours in self-care	0.6	1.3	-0.7***	0.12	Yes
Number of hours in primary arrangement	12.6	11.2	1.4	0.08	
Type of Child Care—last week					
No primary arrangement (%)	51.7	57.2	-5.5**	0.11	?
Informal care (%)	31.9	29.0	2.9	0.06	
Formal care (%)	16.1	13.3	2.8	0.08	
Self-care (%)	0.3	0.5	-0.1	0.02	
Type of Child Care—past 2 years					
No primary arrangement (%)	25.9	32.3	-6.4***	0.14	?
Informal care (%)	58.8	53.6	5.2**	0.11	?
Formal care (%)	42.1	37.4	4.7**	0.10	?
Self-care (%)	5.1	6.3	-1.2	0.05	
Safety of Child Care—since random assignment					
Accident or injury while in child care (%)	7.7	7.6	0.1	0.00	
Stability of Child Care—past 2 years					
Number of providers	3.2	2.9	0.3**	0.11	No
Four or more providers (%)	37.4	34.2	3.2	0.07	
Number of care arrangements	1.5	1.4	0.1**	0.10	No
Extracurricular or After-School Activities					
Participates in extracurricular activities (%)	41.5	43.2	-1.6	0.03	
Sample size (total = 1,679)	819	860			

Source: Indiana Child Well-Being Survey administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Note: A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.

a Effect size is a measure of the size of the impact. It is computed as the impact divided by the standard deviation of the outcome for the two groups combined. A larger effect size indicates a larger impact.

Type of Child Care. In addition to reporting the number of hours their children spent in care, parents described the types of care arrangements their children were placed in during the week before the survey interview. Over half of parents in the Traditional Welfare group reported having no primary arrangement for their child. Of the remaining families who did have a primary child care arrangement for their child, virtually none chose self-care, approximately 30 percent used informal care, and only 13 percent used a formal care setting (such as an after-school program, a family child care home, or lessons or activities) as the primary care arrangement for their child.

The pattern of type of child care arrangement chosen was quite similar for the Welfare Reform group and Traditional Welfare group families. The only significant difference was that 5 percent more Welfare Reform group parents than Traditional Welfare group parents had a primary care arrangement for their child. This difference, although statistically significant, translates into a small effect size (0.11). Whether this impact is favorable or unfavorable again depends on the quality of the care arrangement.

When parents were asked about the types of child care arrangements they had used *during the past 2 years*, more children in both groups were found to have a primary care arrangement. Whereas for the week immediately before the survey, more than half of the focal children in both groups had no primary care arrangement, only 26 percent of Welfare Reform children and 32 percent of Traditional Welfare children had no primary care arrangement for the 2-year period. Just over half of the Traditional Welfare children had been in an informal care setting at some point during the previous 2 years, and 37 percent were in a formal care setting. Six percent took care of themselves at some point during this period. Because Welfare Reform families used more child care generally, the percentages of children in both formal and informal care settings were higher for Welfare Reform than for Traditional Welfare children.

Safety in Child Care. The survey measured safety of child care by asking parents whether any accidents, injuries, or poisonings during child care had required their child to visit a hospital emergency room or clinic since random assignment. Previous findings indicate that the majority of both Welfare Reform and Traditional Welfare children had been in at least one child care

setting during that time. Eight percent of Traditional Welfare children had had such an accident or injury while in child care. Welfare reform had no impacts on this measure.

Stability of Child Care. One concern about children in child care is that they may be exposed to unstable caregiving arrangements and would not have consistent providers with whom they could form strong personal relationships. Such instability could affect children's social and emotional development. Child development experts are primarily concerned with frequent changes in providers within a short period of time. Over multiple years of child care, most children experience changes in child care providers, as the children move from one type of care to another (e.g., from family child care to center care) or from one classroom to another (e.g., from the toddler classroom to the 2-year-old classroom). The stability of children's care arrangements in this study was followed during the 2-year period preceding the survey. For children who were in care throughout that period, some change in providers should be expected. However, children with four or more providers during the period may be experiencing instability that would be of some concern.

Indiana's program increased the number of child care arrangements and child care providers, unfavorable outcomes because of the implied increase in instability. These impacts are not surprising given the greater use of child care among the Welfare Reform group. Although unfavorable, the size of the impacts is small.

Children in the Traditional Welfare group averaged 2.9 providers over the 2 years. This number of providers does not indicate a high level of instability in the children's care arrangements. Children in the Welfare Reform group had more providers (3.2 on average) over the same period. Although the difference between the two groups was statistically significant, the effect size for the impact was small (0.11).

A related measure of instability is the proportion of focal children with four or more providers in the past 2 years. Slightly more than one-third of sample members in both groups met this criterion. The estimated impact was positive but not statistically significant.

In terms of the number of types of child care arrangements, children in the Traditional Welfare group were in 1.4 arrangements, on average, over the previous 2 years. Thus, most children were in a single arrangement over this period. Children in the Welfare Reform group had, on average, 1.5 arrangements during the same period. The small difference between the two groups was statistically significant, but the effect size was small (0.10).

Together, the findings on the number of providers and the number of types of care arrangements indicate that children in both groups had relatively stable child care arrangements. Greater instability was found for the Welfare Reform group children, more of whom were in care and who spent more hours in care during the 2 years preceding the survey. However, the increased instability was small and potentially not meaningful.

After-School Activities. For the older children in the focal child sample, structured after-school activities may take the place of organized child care. These activities provide a monitored environment for children, as opposed to allowing the children to care for themselves. Forty-three percent of the children in the Traditional Welfare group were in some kind of structured after-school activity. An almost equal percentage of children in the Welfare Reform group (41 percent) were in after-school activities, so no program impact was found for this measure. The fact that close to half of the children in both groups participated in structured after-school activities suggests that these activities are an important way for parents to monitor their children when they are not in school and parents are working.

5.5 Impacts on Subgroups

As in previous chapters, we examined whether the impacts of Indiana's welfare reform program varied across subgroups of families defined by employment history and welfare receipt status as of random assignment. The purpose of this analysis was to determine whether welfare reform had larger impacts on some types of families than on others.

Exhibit 5.5 shows program impacts for subgroups defined by TANF status (whether clients were in ongoing cases or were new applicants at the time of random assignment), and Exhibit 5.6 shows program impacts for subgroups defined by employment history.

Exhibit 5.5
Impacts on Selected Home Environment, Parenting and Child Care Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Families of Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Home Environment					
HOME-SF:Cognitive stimulation(1-12) ^d	8.0	0.2	8.0	-0.0	
HOME-SF:Emotional support(1-7) ^e	5.3	0.2	5.3	-0.0	
Parenting					
Parent warmth scale(1-4) ^f	2.8	0.0	2.7	0.1	
Parent harshness scale(1-4) ^g	1.6	-0.1	1.5	0.0	
Parenting aggravation scale (1-4) ^h	1.7	-0.1	1.7	-0.1**	
Parental monitoring scale(1-5) ⁱ	4.8	0.0	4.7	0.0	
Maternal Mental Health					
CES-D total score	15.5	-2.3**	15.0	-0.3	
At risk of clinical depression ^j (%)	43.5	-10.1**	39.3	-0.5	†
Domestic Abuse					
Abuse by partner^k—since random assignment	43.9	1.7	42.3	4.8	
Verbal abuse (%)	37.0	0.8	34.0	1.8	
Controlling behavior (%)	25.0	-3.3	24.8	2.5	
Threat of physical harm (%)	22.3	-1.4	22.9	1.8	
Forced into sexual activity (%)	3.6	1.9	3.8	3.5**	
Physical harm (%)	19.7	2.2	20.9	3.1	

Exhibit 5.5
Impacts on Selected Home Environment, Parenting and Child Care Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Families of Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Stability of Household					
Parents divorced or separated—since random assignment (%)	28.5	6.9*	30.7	0.0	
Child in foster care—past 2 years (%)	-0.1	1.0	0.7	-0.1	
Child separated from parent—past 2 years (%)	5.1	2.9	5.7	-0.5	
Moved—since random assignment (%)	80.2	-5.5*	76.8	3.5	††
Father Involvement in last year					
No contact with father (%)	37.5	2.9	39.8	-4.4	
Child Care					
Extent of Child Care in last week					
Number of hours in child care	9.7	4.0**	13.2	0.5	†
Number of hours in self-care	2.0	-1.2**	1.0	-0.4	
Number of hours in primary arrangement	9.3	3.0*	12.1	0.6	
Type of Child Care in past 2 years					
No primary arrangement (%)	32.4	-4.5	32.3	-7.3***	
Informal care (%)	52.6	2.6	54.2	6.6**	
Formal care (%)	37.6	4.7	37.2	4.7	
Self-care (%)	8.6	-3.7*	5.1	0.1	

Exhibit 5.5
Impacts on Selected Home Environment, Parenting and Child Care Outcomes
for Subgroups Defined by Ongoing or Applicant Status^a
for Families of Focal Children

Outcome	Applicants		Ongoing Clients		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	
Safety of Child Care since random assignment					
Accident or injury while in child care (%)	4.9	-1.1	9.0	0.7	
Extra-Curricular or After-School Activities					
Participates in extra-curricular activities (%)	44.3	-1.3	42.6	-1.8	
Sample size (total = 1,679)					

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of survey).

- a Ongoing clients are defined as clients who were receiving welfare in the month Indiana began its welfare reform program (May 1995) (n=1,102). Applicants are defined as clients who began receiving welfare in any subsequent month during the first year of the program (June 1995 – April 1996) (n=577).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d Modified HOME—SF cognitive stimulation scale=12 items, each rated on a 0/1 scale.
- e Modified HOME—SF emotional support=7 items, each rated on a 0/1 scale.
- f Parent warmth scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3= 7 times in last week, 4=8 or more times in last week.
- g Parent harshness scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3= 7 times in last week, 4=8 or more times in last week.
- h Parent aggravation scale=4 items, each rated on a 4-point scale: 1=none of the time, 2=some of the time, 3=most of the time, 4=all of the time.
- i Parent monitoring scale=4 behaviors, each rated on a 5-point scale: 1=almost never, 2=sometimes, 3=often, 4=almost always, 5=always.
- j Defined as a score of 16 or higher on the CES-D.
- k Partner includes current or ex-partner.

Subgroups Defined by TANF Ongoing or Applicant Status

Differences in program impacts for ongoing and applicant families were found for three outcomes: maternal depression, household stability, and time in child care (Exhibit 5.5). The direction of the impact differences was consistent: program impacts were more favorable for the subgroup of recent applicants, compared with ongoing participants.

Home Environment and Parenting. Welfare reform had no statistically significant impacts on home environment or parenting outcomes for ongoing or applicant subgroups.

Maternal Mental Health and Domestic Abuse. For the applicant subgroup, welfare reform decreased the proportion of mothers who were at risk of clinical depression. This favorable impact was larger than the impact for families in the ongoing client subgroup.

Welfare reform had no statistically significant impacts on domestic abuse by a partner since random assignment.

Household Stability and Nonresident Father Involvement. For this outcome domain, subgroup impacts were found for the proportion of families who moved since random assignment. Welfare Reform group families in the applicant subgroup were less likely than Traditional Welfare group families to have moved, and the decrease in residential moves was larger for applicants than for the ongoing client subgroup. No subgroup impacts were found for nonresident fathers' involvement.

Child Care. A significant subgroup effect was found on only one child care measure—the total number of hours that children had spent in child care during the previous week. The impact on hours in child care was larger for applicants than for ongoing clients and was positive (meaning that welfare reform increased hours in child care for children in the applicant subgroup).

Subgroups Defined by Mother's Employment History Prior to Random Assignment

Across all measures of the home environment, parenting, and child care, employment history was found to have a significant effect on only five measures, spread across four of the outcome

domains (Exhibit 5.6). On these five measures the program impact was significantly stronger in the group of families with the most employment experience (four or five quarters worked out of the five quarters preceding random assignment). On four of the five measures (cognitive stimulation, parent harshness, residential moves, and use of self-care), the program impact was more favorable for the subgroup with the most work history. On the other measure (threat of physical harm), the impact was more *unfavorable* for the subgroup with the most work history.

Home Environment and Parenting. Differential program impacts were found on two measures of the home environment—cognitive stimulation provided in the home, and parent harshness. The subgroup with the most work history experienced larger favorable impacts on cognitive stimulation and parent harshness than subgroups with less work history.

Maternal Mental Health and Domestic Abuse. For the subgroup with the most work history, welfare reform increased the percentage of clients who were threatened physically by their partner, and this adverse impact was larger than the impacts for the subgroups with less work history. No differences in subgroup impacts were found for the other nine measures of domestic abuse or for maternal mental health.

Household Stability and Nonresident Father Involvement. On the number of residential moves, a significant program effect was found for the families that had the most work history. For this subgroup, the Welfare Reform group had a lower rate of moving than the Traditional Welfare group. This impact was larger than the impacts for the subgroups with less work history. For nonresident father involvement, no differences in impacts were found across the work history subgroups.

Child Care. Employment history made a significant difference for only one measure of child care—the proportion of children in self-care in the last 2 years. In the group of families with the most work history, significantly fewer children in the Welfare Reform group than in the Traditional Welfare group were in self-care. This favorable impact was larger than impacts found for the subgroups with less work history.

Exhibit 5.6
Impacts on Selected Home Environment, Parenting, and Child Care Outcomes
for Subgroups Defined by Mother’s Employment History^a
for Families of Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Home Environment							
HOME-SF:Cognitive stimulation(1-12) ^d	7.9	-0.2	7.8	0.1	8.3	0.4*	†
HOME-SF:Emotional support(1-7) ^e	5.2	0.0	5.3	0.1	5.4	0.1	
Parenting							
Parent warmth scale(1-4) ^f	2.7	0.1	2.7	0.0	2.7	0.0	
Parent harshness scale(1-4) ^g	1.5	0.0	1.5	0.0	1.6	-0.1**	††
Parenting aggravation scale (1-4) ^h	1.7	0.0	1.7	0.0	1.7	-0.1**	
Parental monitoring scale(1-5) ⁱ	4.7	0.0	4.8	0.0	4.7	0.0	
Maternal Mental Health							
CES-D total score	15.3	-1.3	15.3	-0.4	14.7	-1.2	
At risk of clinical depression ⁱⁱ (%)	41.7	-2.9	40.3	-2.6	39.9	-6.5	
Domestic Abuse							
Abuse by partner^k since random assignment							
Verbal abuse (%)	42.6	-0.1	42.4	4.7	43.5	8.3*	
Controlling behavior (%)	37.7	1.3	36.5	-1.9	28.8	6.2	
Threat of physical harm (%)	24.3	-1.7	26.6	0.5	23.0	4.3	
Forced into sexual activity (%)	22.0	-2.1	25.4	-1.8	19.6	8.5**	†
Physical harm (%)	3.8	3.1	4.2	3.3*	3.1	2.4	
	16.8	2.1	22.7	2.2	22.8	5.0	
Stability of Household							
Parents divorced or separated—since random assignment (%)	31.6	-1.7	31.2	3.4	25.9	6.6	
Child in foster care—past 2 years (%)	0.4	0.6	0.5	0.1	0.5	-0.1	
Child separated from parent—past 2 years (%)	4.0	0.1	6.2	1.9	6.8	-0.1	
Moved—since random assignment (%)	74.6	3.6	79.6	3.2	80.8	-7.5**	††

Exhibit 5.6
Impacts on Selected Home Environment, Parenting, and Child Care Outcomes
for Subgroups Defined by Mother's Employment History^a
for Families of Focal Children

Outcome	Least Work History		Medium Work History		Most Work History		Difference in Impacts Across Subgroups ^c
	Traditional Welfare Group Average	Impact ^b	Traditional Welfare Group Average	Impact	Traditional Welfare Group Average	Impact	
Father Involvement in last year							
No contact with father (%)	40.1	-7.5*	33.4	3.4	45.2	-1.1	
Child Care							
Extent of Child Care in last week							
Number of hours in child care	10.8	1.9	13.1	0.8	12.4	2.8	
Number of hours in self-care	0.7	-0.3	1.1	-0.2	2.6	-1.9**	
Number of hours in primary arrangement	9.6	1.9	12.5	0.4	11.5	2.1	
Type of Child Care in last 2 years							
No primary arrangement (%)	36.8	-8.2**	31.7	-6.8*	26.5	-3.3	
Informal care (%)	49.9	8.1**	54.9	4.6	57.5	2.0	
Formal care (%)	34.5	5.1	38.6	2.5	39.9	7.2	
Self-care (%)	5.8	2.3	6.7	-1.7	6.8	-5.7**	††
Safety of Child Care since random assignment							
Accident or injury while in child care (%)	9.5	-1.4	5.2	2.1	8.2	-0.5	
Extra-Curricular/After-School Activities							
Participates in extra-curricular activities (%)	41.2	-3.5	43.4	-1.7	45.6	1.2	
Sample size (total = 1,679)							

Source: *Indiana Child Well-Being Survey* administered to parents of focal children (families with child between 5 and 12 years of age at the time of the survey).

Exhibit 5.6
Impacts on Selected Home Environment, Parenting and Child Care Outcomes
for Subgroups Defined by Mother’s Employment History^a
for Families of Focal Children

- a “Least” work experience=0 quarters employed in 5 quarters prior to random assignment (n=629). “Medium” work experience=2 or 3 quarters employed in 5 quarters prior to random assignment (n=603). “Most” work experience=4-5 quarters employed in 5 quarters prior to random assignment (n=447).
- b A two-tailed test was applied to regression-adjusted impact estimates. Statistical significance levels are indicated as: * = 10 percent, ** = 5 percent, *** = 1 percent.
- c An F-test was used to determine whether differences in impacts across subgroups were statistically significant. Statistical significance is indicated as: † = 10 percent, †† = 5 percent, ††† = 1 percent.
- d Modified HOME—SF cognitive stimulation scale=12 items, each rated on a 0/1 scale.
- e Modified HOME—SF emotional support=7 items, each rated on a 0/1 scale.
- f Parent warmth scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3= 7 times in last week, 4=8 or more times in last week.
- g Parent harshness scale=3 behaviors, each rated on a 4-point scale: 1=0 times in last week, 2=1 to 6 times in last week, 3= 7 times in last week, 4=8 or more times in last week.
- h Parent aggravation scale=4 items, each rated on a 4-point scale: 1=none of the time, 2=some of the time, 3=most of the time, 4=all of the time.
- i Parent monitoring scale=5 behaviors, each rated on a 5-point scale: 1=almost never, 2=sometimes, 3=often, 4=almost always, 5=always.
- j Defined as a score of 16 or higher on the CES-D.
- k Partner includes current or ex-partner.

References

- Bloom, Dan, Susan Scrivener, Charles Michalopoulos, Pamela Morris, Richard Hendra, Diana Adams-Ciardullo, Johanna Walter, with Wanda Vargas. 2002. Jobs First: Final Report on Connecticut's Welfare Reform Initiative. New York, NY: Manpower Demonstration Research Corporation. February.
- Bloom, Dan, James J. Kemple, Pamela Morris, Susan Scrivener, Nandita Verma, and Richard Hendra. 2000. The Family Transition Program: Final Report on Florida's Initial Time-Limited Welfare Program. New York, NY: Manpower Demonstration Research Corporation. December.
- Brooks, Jennifer L., Elizabeth C. Hair, and Martha J. Zaslow. 2001. "Welfare Reform's Impact on Adolescents: Early Warning Signs." Child Trends Research Brief. Washington, DC: Child Trends Inc. July.
- Child Trends. 1999. Children and Welfare Reform: A Guide to Evaluating the Effects of State Welfare Policies on Children. Washington DC: Child Trends Inc.
- Cohen, Jacob. 1988. Statistical Power Analysis for the Behavioral Sciences. 2nd ed. New York: Academic Press.
- Fraker, Thomas, Christine Ross, Rita Stapulonis, Robert Olsen, Martha Kovac, Robin Dion, and Anu Rangarajan. 2002. The Evaluation of Welfare Reform in Iowa: Final Impact Report. Washington, DC: Mathematica Policy Research, Inc.
- Gennetian, Lisa A., and Cynthia Miller. 2000. Reforming Welfare and Rewarding Work: Final Report on the Minnesota Family Investment Program. Volume 2: Effects on Children. New York, NY: Manpower Demonstration Research Corporation. September.
- Hamilton, Gayle, Stephen Freedman, and Sharon M. McGroder. 2000. Do Mandatory Welfare-to-Work Programs Affect the Well-Being of Children? A Synthesis of Child Research Conducted As Part of the National Evaluation of Welfare-to-Work Strategies. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families and Office of the Assistant Secretary for Planning and Evaluation; and U.S. Department of Education, Office of the Under Secretary and Office of Vocational and Adult Education.
- Huston, Aletha C., Greg J. Duncan, Robert Granger, Johannes M. Bos, V. McLoyd, R. Mistry, Danielle A. Crosby, Christina Gibson, Katherine Magnuson, Jennifer Romich, and Ana Ventura. 2001. "Work-Based Antipoverty Programs for Parents Can Enhance the School Performance and Social Behavior of Children." *Child Development*, 72(1), 318–336.
- Lipsey, Mark W. 1990. Design Sensitivity: Statistical Power for Experimental Research. Newbury Park, CA: Sage Publications.
- Morris, Pamela A., Aletha C. Huston, Greg J. Duncan, Danielle A. Crosby, and Johannes M. Bos. 2001. How Welfare and Work Policies Affect Children: A Synthesis of Research. New York, NY: Manpower Demonstration Research Corporation. March.

- Morris, Pamela, and Charles Michalopoulos. 2000. The Self-Sufficiency Project at 36 Months: Effects on Children of a Program that Increased Parental Employment and Income. Ottawa, Canada: Social Research and Demonstration Corporation. June.
- National Center for Health Statistics. 1997. Health of Our Nation's Children. Series 10. Data from the National Health Interview Survey. Hyattsville, MD: U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics.
- Nord, Mark, Nader Kabbani, Laura Tiehen, Margaret Andrews, Gary Bickel, and Steven Carlson. 2002. Household Food Security in the United States, 2000. ERS Food Assistance and Nutrition Research Report No. (FANRR)21. Washington DC: U.S. Department of Agriculture. March.
- U.S. Department of Education. 2000. Twenty-Second Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act. Washington, DC: U.S. Department of Education.
- U.S. Department of Education, National Center for Education Statistics. 2000. Dropout Rates in the United States: 1999. NCES 2001-022, by Phillip Kaufman, Jin Y. Kwon, Steve Klein, and Christopher D. Chapman. Washington, DC: National Center for Education Statistics.
- U.S. Department of Education, National Center for Education Statistics. 1997. The Condition of Education, 1997. NCES 97-388, by Thomas M. Smith, Beth Aronstamm Young, Yupin Bae, Susan P. Choy, and Nabeel Alsalam. Washington, DC: National Center for Education Statistics.
- West, Jerry, Anne Meek, and David Hurst. 2000. "Children who enter kindergarten late or repeat kindergarten: Their characteristics and later school performance." 1995 National Household Education Survey (NHES: 95). Washington, DC: National Center for Education Statistics.

Cambridge, MA
55 Wheeler Street
Cambridge, MA 02138
(617) 492-7100

Hadley, MA
Mass Venture Center
100 Venture Way, Suite 100
Hadley, MA 01035
(413) 586-8635

Lexington, MA
181 Spring Street
Lexington, MA 02421
(781) 372-6500

Bethesda, MD
4800 Montgomery Lane, Suite 600
Bethesda, MD 20814
(301) 913-0500

Washington, DC
1110 Vermont Ave., NW, Suite 240
Washington, DC 20005
(202) 263-1800

Old Greenwich, CT
1445 East Putnam Avenue
Old Greenwich, CT 06870
(203) 637-9995

Chicago, IL
640 North LaSalle Street
Suite 400
Chicago, IL 60610
(312) 867-4000

Cairo, Egypt
21 El Mansour Mohamed Street
Suite 1
Zamalek, Cairo,
Arab Republic of Egypt
(20) 2-735-2906

Pretoria, Republic of South Africa
443 Leyds Street
Momentum Building, 7th Floor
Sunnyside, Pretoria 0132
Republic of South Africa
(27) 12-343-7000