LEAP

FINAL REPORT ON OHIO'S WELFARE INITIATIVE TO IMPROVE SCHOOL ATTENDANCE AMONG TEENAGE PARENTS

Ohio's Learning, Earning, and Parenting Program

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The findings and conclusions presented in this report do not necessarily represent the official positions or policies of the funders.

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Preface

This is the fifth and final report from a large-scale evaluation of Ohio's statewide Learning, Earning, and Parenting (LEAP) Program, one of the most important policy initiatives developed to address the problems of teen parents on welfare. Under this program, which began in 1989, all teen parents who receive welfare are provided with a substantial financial incentive to attend school. In effect, LEAP ties the size of the welfare grant to whether a teen mother goes to school, and also provides case management and support services. The program seeks to increase school attendance in the hope that this will ultimately increase the self-sufficiency of the teens involved.

The report shows that LEAP succeeded in increasing school enrollment and attendance and reducing welfare receipt. Moreover, the program was cost-effective for the state welfare department and increased GED receipt and employment among teens who were enrolled in school when they were first found eligible for LEAP. The report also points out, however, that LEAP did not increase the rate of high school graduation, because many teens dropped out before completing the 12th grade. And, for teens who were not in school when they entered the program, there was no increase in school completion or employment, despite high sanctioning. The report develops recommendations to improve these results and describes recent changes implemented by the State of Ohio, partly in response to earlier reports in this series, that seek to improve LEAP's outcomes.

The study concludes that LEAP's incentives clearly mattered. But it also reminds us that there are no easy answers. For teens who were initially in school, there were distinct gains, but they were limited. For the tougher group — teens who were initially out of school — LEAP produced no gains and repeated sanctions. Overall, too many teens returned to school only to leave again without getting a diploma. And too many remained on welfare and not employed.

Earlier LEAP reports found that a troublingly large number of teens described their schools as dangerous and disorderly places where learning was difficult. This suggests that if LEAP is to reach its full potential, the welfare department's efforts will have to be accompanied by changes in the schools themselves. This challenge is particularly urgent because the 1996 welfare legislation ties young parents' receipt of federal cash benefits to school attendance.

This report shows that Ohio's approach offers a cost-effective and practical way to increase school involvement among teen parents on welfare. The system of bonuses and sanctions effectively combines positive and negative reinforcement strategies, offering teens an opportunity to increase their available income while at the same time working toward graduation. However, financial incentives alone did not lead to dramatic changes, especially for teens who had dropped out of school before the program reached them. This outcome is not unique to LEAP. Other interventions for teen parents have found it difficult to improve the school outcomes and self-sufficiency of dropouts. In developing programs for teen parents on welfare, states will need to pay special attention to these particularly vulnerable families.

The final report in a multi-year evaluation is a useful time to give credit to the many parties that made its success possible. Evaluations like this one require the sustained involvement of staff in the agencies that run the program, provide the data, and fund the study, as well as the cooperation of the many teen mothers who responded to the project's surveys. This study

benefited from an unusual public-private partnership, including people in the welfare agencies and schools in the 12 Ohio counties in the study, the Ohio Department of Human Services, and a group of foundations. All were committed to obtaining an accurate measure of the program's accomplishments and to using that information to improve the program's operations. The completion of the study is an opportunity to express our appreciation for their support and vision.

Judith M. Gueron
President

Acknowledgments

Executive Summary

This is the fifth and final report from a multi-year evaluation of Ohio's Learning, Earning, and Parenting (LEAP) Program.[1] Developed and operated by the Ohio Department of Human Services (ODHS), LEAP is a statewide initiative that employs financial incentives in an attempt to increase school enrollment and attendance among pregnant teenagers and custodial teen parents on welfare (almost all of them are women). LEAP, which began operating in 1989, requires these teens to stay in school and attend regularly or, if they have dropped out, to return to school or enter a program to prepare for the General Educational Development (GED), or high school equivalency, test. The program thereby strives to increase the proportion of teens who graduate from high school or receive a GED, find jobs, and ultimately achieve self-sufficiency. These longer-term goals are important because, even though teen parents make up fewer than 10 percent of all Aid to Families with Dependent Children (AFDC) case heads, families started by women who first gave birth as teenagers account for approximately 50 percent of all long-term AFDC recipients.

During the period of this study (the rules have recently been modified), teens who met LEAP's requirements had their welfare checks increased — $62 for school enrollment and an additional $62 each month they attended school regularly[2] — and teens who did not (without an acceptable reason) had $62 deducted from their welfare grant every month until they complied with program rules. Those who exceeded the allowed number of total absences in a month but not the allowed number of unexcused absences qualified for neither a bonus nor a "sanction" (as such grant reductions are called). Teens could be temporarily exempted from LEAP's requirements for medical reasons, to care for an infant, or if child care or transportation was unavailable. Teens were no longer subject to LEAP's requirements when they reached the age of 20, left AFDC, or received a high school diploma or a GED. During 1992 — approximately the midpoint in the period covered by this report — a teen living on her own with one child (the most common situation) was eligible for a monthly AFDC grant of $274. Thus, a bonus raised her grant to $336 and a sanction reduced it to $212. If she went from being sanctioned to receiving a bonus, she would experience a 58 percent increase in her welfare grant.

Teens' enrollment and attendance are monitored by case managers, who explain the program's rules, offer guidance, and authorize assistance with child care and transportation teens

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[1]The four previous reports are: Dan Bloom, Hilary Kopp, David Long, and Denise Polit, *LEAP: Implementing a Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1991; Dan Bloom, Veronica Fellerath, David Long, and Robert G. Wood, *LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1993; David Long, Robert G. Wood, and Hilary Kopp, *LEAP: The Educational Effects of LEAP and Enhanced Services in Cleveland,* 1994; and David Long, Judith M. Gueron, Robert C. Wood, Rebecca Fisher, and Veronica Fellerath, *LEAP: Three-Year Impacts of Ohio's Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1996.

[2]For high school students, "regular attendance" was defined as having no more than two unexcused absences and no more than four total absences in a month.

may need to attend school. LEAP itself provides no other services, although many Ohio high schools have special programs, called GRADS (Graduation, Reality, and Dual-Role Skills), which are designed to assist teen parents in managing their dual roles as parents and students. Also, as part of the evaluation, an enhanced version of LEAP was put in place on a pilot basis in some Cleveland high schools; it offered school-based services such as child care and intensive case management as well as special GED classes and other services for teens who were not complying with LEAP.

The LEAP evaluation began with the start of the program itself and encompassed 12 Ohio counties, in which the large majority of LEAP teens resided. Previous reports described the program's operations and analyzed LEAP's effectiveness in achieving its education goals and in moving teens toward employment and self-sufficiency. The primary purpose of this final report is to present longer-term (four-year) effects of LEAP on the teens'[3] employment, earnings, and AFDC receipt and to assess the program's cost-effectiveness.

The report is based on a study of 4,151 teens who were identified as eligible for LEAP, in all 12 research counties, during the program's second year of operation (August 1990 through September 1991). As part of the study, these teens were randomly assigned, by chance, to one of two groups: a *program group,* which was subject to the LEAP program, or a *control group,* which was not. Data were collected on both groups during a four-year follow-up period. For employment and welfare outcomes, this follow-up period started in the first month of the calendar quarter in which the teen was randomly assigned. For outcomes measured with the two follow-up surveys, the follow-up period started in the month of random assignment itself. This means, for example, that four-year employment outcomes for a teen randomly assigned in December 1990 would cover the period from October 1990 through September 1994. On the other hand, three-year data on school completion would cover December 1990 through November 1993.

Because teens were assigned to the two groups through a random process, there were no systematic differences between the groups' members when they entered the study; any differences that emerged between the two groups during the follow-up period can reliably be attributed to the LEAP program. These differences are referred to in this report as the program's effects, or "impacts."

In September 1996, based on its operational experience and informed by the flow of findings from the evaluation, ODHS implemented changes in LEAP to build upon and improve the program's achievements. For example, with the goal of increasing graduation rates, an additional $62 bonus for completion of each grade (except 12th grade) and a graduation bonus of $200 have been added; with the goal of changing the behavior of hard-to-reach teens, those who are sanctioned for six consecutive months now have their needs and their children's needs deducted from the calculation of the welfare cash benefit each month until they comply with LEAP's rules. (If they are on another person's case, that person's portion of the cash benefit is

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[3]Sample members are referred to as "teens" in this report, but by the end of the four-year follow-up period, most were in their early twenties.

unaffected.) Although this report does not include a study of these recent changes, it does discuss the results in light of them.

The larger national context has changed as well, with enactment of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 — the landmark welfare law that replaced the entitlement to AFDC with block grants to states. Under the law, unmarried custodial teen parents under the age of 18 who have not graduated from high school or received a GED or comparable credential may not receive federally funded welfare assistance unless they attend high school or a program that prepares them to earn an alternative education or training credential. Prior to the law's enactment, some 25 states had already instituted some form of school requirement for teen parents on welfare. As one of the first programs implementing a school attendance mandate for the state's entire teen parent welfare caseload, and as the first to be evaluated with a rigorous, random assignment design, LEAP served as a model for many of these subsequent efforts. The 1996 welfare law is likely to intensify interest in the program and in the evaluation results as those who design and develop new state programs and policies seek lessons applicable to their own goals and circumstances.

The Findings in Brief

Previous reports found that LEAP was successfully implemented, itself a genuine achievement. The sheer scope of LEAP — a statewide initiative intended to reach the entire target population — was virtually unprecedented, and the existing management information system (called CRIS) was not designed to permit the ready identification and tracking of eligible teens or the administration of the bonus and sanction system itself. LEAP also required entirely new linkages between the county welfare departments and the education system, which provided the enrollment and attendance data needed to implement the bonuses and sanctions. Over time, the program achieved smooth operations, with the phasing in from 1991 to 1992 of a highly sophisticated statewide public assistance computer system (CRIS–Enhanced). But because the research sample entered the program before LEAP was fully implemented, the reported results may be a conservative estimate of the program's potential.

LEAP's immediate goals were to induce dropouts to return to high school or to enroll in GED programs, and to induce those still enrolled to remain in high school. By linking bonuses and sanctions to school attendance, the program also sought to promote better attendance among those enrolled. To a considerable degree, LEAP met these goals: It significantly increased school enrollment and attendance, the outcomes directly linked to the incentives provided, for both in-school teens and dropouts. During a three-year follow-up period, the program also achieved positive impacts on school progress (completion of the 9th, 10th, and 11th grades).

LEAP's longer-term goals included higher rates of high school graduation and GED receipt, which it was hoped would increase teens' employment and reduce their receipt of welfare. Here, the results were more mixed. In general, the impacts on school completion and employment were more positive for teens who were in school when the program identified them as eligible (the "intially enrolled" teens) than for those who had dropped out before LEAP reached them (the "not initially enrolled" teens). Specifically, the program did not increase high school graduation rates except for the initially enrolled group in Cleveland. LEAP did have positive effects on GED receipt, but only for the initially enrolled group.

In spite of its limited school completion impacts, LEAP was successful in increasing the employment rates of initially enrolled teens throughout the four-year follow-up period, and had positive impacts on their earnings during the first two years, after which the control group caught up. No employment impacts were found for the not initially enrolled teens. Both groups experienced significant reductions in welfare receipt, which were comparable to welfare savings in welfare-to-work programs for adults. LEAP's impacts on earnings and welfare receipt also were calculated separately for each county. In general, there was no statistically significant variation in the impacts across the various counties.

All in all, the LEAP program benefited initially enrolled teens by increasing their school attendance, GED receipt, and work experience, whereas impacts for the not initially enrolled were limited to school enrollment and attendance. LEAP achieved these results while at the same time being cost-neutral for the welfare department.

Table 1 highlights some of the key impacts, which are discussed further in the remainder of this summary.[4]

The Data Sources and Sample for This Report

Part of this final report reviews and summarizes analyses presented in previous reports. These analyses used several data sources: (1) a survey of 1,188 teens, administered approximately one year after each of them had entered the study (i.e., had been randomly assigned to the program group or control group), and focused primarily on the teens' early experiences in LEAP and their school enrollment status at the one-year point; (2) a review of 263 LEAP case files from Cuyahoga, Franklin, and Hamilton counties (Cleveland, Columbus, and Cincinnati) to study LEAP's implementation in general and the bonus/sanction process in particular; and (3) a three-year survey of 913 teens in seven counties three years after random assignment to measure education outcomes (including school attendance, graduation rates, and GED receipt) and employment and welfare outcomes.

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[4]In this and the other impact tables, statistical significance is indicated by asterisks. A "statistically significant" result is one that has less than a 10 percent probability of having occurred simply by chance and not as a result of the program.

Table 1

LEAP's Impacts Summarized

Measure	Program Group	Control Group	Difference (Impact)
Full Sample			
In the 12 months after random assignment			
Number of months enrolled in high school	4.8	4.2	0.6 **
Number of months enrolled in a GED program	1.3	0.8	0.5 ***
In the 3 years after random assignment			
Ever completed grade 11 (%)	50.0	45.4	4.6 *
Ever completed high school (%)	22.9	23.5	-0.6
Ever received a GED (%)	11.1	8.4	2.7
Ever employed			
Year 2 (%)	43.8	40.6	3.1 *
Year 3 (%)	51.3	49.8	1.4
Year 4 (%)	61.0	59.6	1.4
Total earnings, years 1-4 ($)	4,405	4,293	112
Amount of AFDC received, years 3 and 4 ($)	5,185	5,459	-275 **
Sample Members Enrolled in High School or in a GED Program at Random Assignment			
In the 12 months after random assignment			
Number of months enrolled in high school	7.3	6.6	0.7 *
Number of months enrolled in a GED program	0.9	0.7	0.3
In the 3 years after random assignment			
Ever completed grade 11 (%)	60.6	58.1	2.5
Ever completed high school (%)	35.6	34.2	1.4
Ever received a GED (%)	10.0	4.4	5.6 **
Ever employed			
Year 2 (%)	46.4	39.7	6.7 ***
Year 3 (%)	55.7	54.7	1.0
Year 4 (%)	65.1	60.5	4.6 *
Total earnings, years 1-4 ($)	4,862	4,319	544
Amount of AFDC received, years 3 and 4 ($)	5,181	5,497	-316 **
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment			
In the 12 months after random assignment			
Number of months enrolled in high school	1.5	1.0	0.5 *
Number of months enrolled in a GED program	1.7	0.9	0.8 ***
In the 3 years after random assignment			
Ever completed grade 11 (%)	35.8	28.0	7.8 *
Ever completed high school (%)	6.7	7.8	-1.1
Ever received a GED (%)	12.0	14.3	-2.3
Ever employed			
Year 2 (%)	41.0	42.2	-1.2
Year 3 (%)	46.3	44.0	2.4
Year 4 (%)	56.3	58.8	-2.6
Total earnings, years 1-4 ($)	3,930	4,271	-341
Amount of AFDC received, years 3 and 4 ($)	5,172	5,395	-223

NOTE: Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

New analyses presented in this report focus on longer-term (four-year) employment and earnings outcomes and AFDC receipt, and are based on administrative data from the statewide Unemployment Insurance and welfare systems, respectively. For the first time, data for the impact analysis were available for all 12 research counties in which teens were randomly assigned to the LEAP program. The 12 counties are Cuyahoga, Franklin, Hamilton, Jefferson, Lawrence, Lorain, Lucas, Montgomery, Muskingum, Stark, Summit, and Trumbull. They were selected through a weighted random assignment procedure that assured the inclusion of the three counties with the largest estimated LEAP caseloads — Cuyahoga, Franklin, and Hamilton. About two-thirds of the statewide teen population targeted by LEAP resided in these 12 counties.

The sample for these new analyses included 4,151 teens (3,479 program group members and 672 control group members), randomly assigned between mid-August 1990 and September 1991, i.e., those who entered the study in the second (and last) year of random assignment. This sample was chosen for two reasons. First, teens who entered the study later experienced a more mature (though still evolving) LEAP program than those who entered in the program's first year of operation. Second, for administrative reasons, AFDC and employment and earnings data were not available for the early part of the follow-up period: The employment data cover the last three-and-a-half years of the four-year period; the AFDC data cover years 3 and 4 only. By limiting the analysis to those randomly assigned after mid-August 1990, it was possible to present a consistent impact analysis, covering the same length of follow-up for all sample members. The three-year survey sample — the primary data source for the previous report — was also drawn from teens who were randomly assigned in the second year of random assignment, and, therefore, is a subsample of the research sample for the present report.

Teens' Initial School Enrollment Status as a Context for the Findings

Many of this report's analyses are broken down by school enrollment status at random assignment. Findings are presented separately for teens who were enrolled in high school or in a GED program when they entered the study (usually labeled "initially enrolled" in this report, and constituting about 55 percent of the sample) and for teens who were not enrolled in school or in a GED program (labeled "not initially enrolled" or also referred to as "dropouts"). Even though, after random assignment, many teens moved from one status to the other (i.e., either re-entered school or a GED program when they were dropouts, or dropped out after having been initially enrolled), the previous report found that initial school status was an important predictor of program success.

In previous reports, it was hypothesized that the incentives provided through the LEAP program may have been sufficient to keep more of the enrolled teens in school, but may not have been strong enough to induce more of the teens who had left school to return and remain enrolled. Doing so could have represented a major (and, possibly, costly) change in the lives of the teens, perhaps especially for those who had been out of school a long time. Such teens may not have been willing to make this change in return for the monetary incentives provided. Also, the fact that some teens were not initially enrolled, while others were, may reflect underlying obstacles to school enrollment, which the teens would have had to overcome in order to return to

school. For example, the not initially enrolled teens tended to be older, were less likely to live with a parent, and had more children to care for.

Findings on Program Implementation

- **The state and county welfare departments successfully implemented LEAP statewide, forging a link between welfare departments and schools and putting the incentive system in place.**

As discussed in detail in the 1993 report and summarized in this one, LEAP's incentive structure was successfully implemented in each of the 12 research counties. Program operations improved over time, which meant that most teens in the research sample were exposed to a more efficient and predictable LEAP program in the latter part of the follow-up period. The key was full implementation of a statewide computer system that made identifying and tracking teens easier and carrying out bonuses and sanctions largely automatic. Since the end of the follow-up period, counties have also continued to improve teens' access to child care and other support services.

- **Almost all eligible teens (93 percent) were touched by LEAP's incentives, with 75 percent earning at least one bonus and 56 percent qualifying for at least one sanction.**

As discussed in previous reports, a review of a sample of LEAP case files in three counties found that fully 93 percent of these teens earned at least one bonus or sanction, with the average teen qualifying for about six grant adjustments (3.5 bonus payments and 2.8 sanctions) during her first 18 months in LEAP. During this 18-month period, there were more bonuses than sanctions: 37 percent of teens earned only bonuses; 18 percent qualified for only sanctions; and 38 percent earned at least one bonus and one sanction. In other words, 75 percent of teens earned at least one bonus and 56 percent qualified for at least one sanction. As time passed and the teens got older, those who were still eligible for LEAP received more sanctions than bonuses, probably because teens who had graduated or received a GED by month 18 (generally cooperative teens, who earned frequent bonuses) were no longer subject to LEAP, leaving a higher proportion of frequently sanctioned teens still subject to the program.

- **The majority of teens with multiple sanctions reported diminished spending on essentials for their families, especially clothing and food. Most teens with multiple bonus payments reported spending a large share of the additional money on their children.**

Teens who were sanctioned at least four times reported in the three-year LEAP survey that the resulting welfare grant reductions had a material effect on their families: 58 percent said that their families had fewer essentials (most often clothing, food, and medicine) because of the grant reductions. Moreover, the sanctions reportedly affected the children at least as much as their

teenage parents. Teens replaced part of the income they lost to sanctions by borrowing money (usually from their parents), applying for other forms of public assistance (most frequently Food Stamps), and seeking additional child support. Two-thirds of the teens postponed paying bills, most often utilities bills or rent.

Among teens who received at least four bonus payments, close to 90 percent reported using the additional money on essentials, especially for their children. Almost a quarter also reported being able to pay for some "luxuries" such as new clothing and outings (e.g., to the movies or to the zoo) for their children. These teens also were better able to pay their bills and to save some money, which they said was later used to obtain special items for their children, buy household essentials, and cover unexpected emergencies.

Findings on School Enrollment, Graduation, and GED Receipt

- **LEAP's immediate goals — and the behaviors directly targeted by its financial incentives — were to improve the teens' enrollment and attendance in school or in a GED program. After one year of follow-up, LEAP achieved a substantial increase in these outcomes, for both initially enrolled and not initially enrolled teens. The program also produced modest, but statistically significant, increases in completion of the 9th, 10th, and 11th grades.**

As shown in Table 1, LEAP increased the number of months the average teen attended high school during the first year of follow-up, from 4.2 to 4.8 months — an increase of 14.3 percent relative to the control group. There were increases for both the initially enrolled teens (from 6.6 months for the control group to 7.3 months for the program group) and the not initially enrolled (from 1.0 months to 1.5 months). The latter also increased their enrollment and attendance in GED programs, from 0.9 months for the control group to 1.7 months for the program group.

These impacts on school enrollment and attendance were followed by modest increases in completion of the 9th, 10th, and 11th grades.

- **LEAP's effect on school completion — its longer-term education goal — was found to be limited when measured three years after teens entered the program. The program increased GED receipt among teens who were enrolled in school when they entered LEAP. There were no impacts on high school graduation or GED receipt among teens who were not enrolled in school when they entered LEAP.**

LEAP's subsequent education outcomes were less promising. For the initially enrolled teens, the program increased GED completion rates (from 4.4 percent for the control group to 10.0 percent for the program group), but did not increase high school graduation rates, except in Cleveland (based on an analysis of school records). There is some evidence that these gains in

Cleveland may have been partly attributable to the enhanced LEAP services provided on a pilot basis in some of its high schools (as described in detail in the 1994 report).

For the not initially enrolled, the impacts on enrollment and attendance in GED programs did not translate into a higher rate of GED receipt, nor did the 11th-grade completion impact lead to an increased rate of high school graduation, at least not within the period covered by the three-year follow-up survey.

- **Two-thirds of the teens in the sample did not receive a high school diploma or a GED certificate within a three-year follow-up period. However, approximately one-sixth of the teens were still in school at the end of that period and could have graduated or received a GED subsequently.**

A number of factors probably explain the low rates of high school completion shown in Table 1. Some teens may not have completed all the courses required for graduation, or may have opted to take a GED test instead of further pursuing a high school diploma. The teens' feelings about school and their own future doubtless played a part. In an earlier survey, a large proportion of LEAP teens reported that their schools were unsafe, inflexible, and unsupportive. Some also viewed their economic prospects as dim, with or without a high school diploma or a GED. Other studies have pointed to the situational and emotional problems that can make school attendance difficult for teenage single mothers.

However, in light of the teens' youth, when school completion and enrollment are considered together, significantly more LEAP teens than control group members (51.6 percent compared with 46.5 percent) had graduated from high school, received a GED, or were in high school or a GED program at the time of the three-year survey. By the end of the three-year follow-up period for school outcomes, 30.4 percent of teens in the sample were under age 20, and 17.5 percent of program group members, compared with 14.5 percent of control group members, were in high school or a GED program. Thus, LEAP's impacts on high school graduation and GED receipt may have increased somewhat after the three-year follow-up period.

It is also important to consider LEAP's high school graduation impacts in the context of the overall graduation rates in the same locales. According to official data, the high school graduation rates for all students in five large school districts (Cincinnati, Cleveland, East Cleveland, Columbus, and Toledo) ranged between 27 and 45 percent in 1994. Lifting graduation rates among LEAP teens to the prevailing levels in their schools would be a noteworthy achievement.

Findings on Employment and Earnings

- **Teens in both the program group and the control group experienced substantial growth in their employment rates and earnings during the four-year follow-up period. By the end of follow-up, four out of five teens had worked in a job covered by Unemployment Insurance. Overall quarterly**

employment rates for such employment increased from 17 percent in the third quarter of year 1 to 40 percent in the last quarter of year 4. If employment not covered by Unemployment Insurance could have been taken into account, the employment rates and earnings presented in this report would have been higher.

In spite of their responsibilities as parents, their youth, and their educational and economic disadvantages, a large proportion of teens included in the LEAP evaluation were employed (often full time) at various points throughout the follow-up period. Quarterly employment rates increased steadily for both LEAP teens and those in the control group. Almost 40 percent of all the teens were employed at some point during the last three months of follow-up (as shown in Table 2) and average quarterly earnings had grown to $568 (or $1,457 for those employed). Therefore, even though few sample members could be considered self-sufficient by the end of the four-year follow-up, many had begun to develop ties to the labor market, and relatively few had not worked at all. These findings attest to the motivation of many young parents in the sample to find work and become part of the formal labor market.

- **The LEAP program increased employment for initially enrolled teens, but not for teens who were not initially enrolled. These impacts were strongest early in the follow-up period.**

Table 2 summarizes the program's impacts on employment. The table shows that program group members who were initially enrolled in school were more likely to be employed than their control group counterparts during years 1, 2, and 4 of the follow-up period. For the full sample, these impacts on employment were small (and statistically significant only in year 2), because they averaged positive impacts for the initially enrolled group with small negative impacts for teens who were not initially enrolled.

Employment impacts for teens who were enrolled in school at the time of random assignment were quite substantial, especially in years 1 and 2 of follow-up. In fact, these employment impacts are comparable to those found for adult welfare recipients in welfare-to-work programs evaluated by MDRC. These impacts are remarkable, especially because they occurred in spite of these teens' greater involvement in school during this time, suggesting that, contrary to what one might expect, increased school attendance may not reduce opportunities to work — at least part time — for these teens.

- **LEAP increased initially enrolled teens' earnings during the first two years of follow-up, but the impacts became smaller in later years.**

Table 3 presents the program's impacts on earnings (averaged in are zero earnings for those teens who were not employed at all). Teens who were enrolled in school at random assignment experienced quite substantial earnings impacts through year 2 of follow-up. Earnings in the second

Table 2

LEAP's Four-Year Impacts on Employment

Measure	Program Group	Control Group	Difference (Impact)
Full Research Sample			
Ever employed (%)			
Year 1, second half	27.1	24.5	2.5
Year 2	43.8	40.6	3.1 *
Year 3	51.3	49.8	1.4
Year 4	61.0	59.6	1.4
Years 1-4	78.2	76.6	1.6
Ever employed in the last 3 months of year 4 (%)	39.9	39.4	0.5
Number of quarters employed in years 1-4	3.99	3.88	0.11
Sample Members Enrolled in High School or in a GED Program at Random Assignment			
Ever employed (%)			
Year 1, second half	28.9	23.7	5.2 **
Year 2	46.4	39.7	6.7 ***
Year 3	55.7	54.7	1.0
Year 4	65.1	60.5	4.6 *
Years 1-4	81.6	80.6	1.0
Ever employed in the last 3 months of year 4 (%)	44.6	40.9	3.7
Number of quarters employed in years 1-4	4.41	4.03	0.38 **
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment			
Ever employed (%)			
Year 1, second half	25.3	25.8	-0.5
Year 2	41.0	42.2	-1.2
Year 3	46.3	44.0	2.4
Year 4	56.3	58.8	-2.6
Years 1-4	74.4	72.3	2.1
Ever employed in the last 3 months of year 4 (%)	34.7	37.8	-3.1
Number of quarters employed in years 1-4	3.52	3.72	-0.20

NOTES: For each individual sample member, the follow-up period started with the calendar quarter in which the teen was randomly assigned. Therefore, year 1 is the 12-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

      Employment data for the first half of year 1 were not available for this analysis.

      Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table 3

LEAP's Four-Year Impacts on Earnings

Measure	Program Group	Control Group	Difference (Impact)
Full Research Sample			
Total earnings ($)			
Year 1, second half	315	252	64 *
Year 2	927	808	119
Year 3	1,311	1,320	-9
Year 4	1,852	1,914	-61
Years 1-4	4,405	4,293	112
Sample Members Enrolled in High School or in a GED Program at Random Assignment			
Total earnings ($)			
Year 1, second half	343	242	101 *
Year 2	1,040	812	228 *
Year 3	1,465	1,342	124
Year 4	2,014	1,923	91
Years 1-4	4,862	4,319	544
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment			
Total earnings ($)			
Year 1, second half	292	270	22
Year 2	816	816	0
Year 3	1,144	1,287	-143
Year 4	1,678	1,898	-220
Years 1-4	3,930	4,271	-341

NOTES: For each individual sample member, the follow-up period started with the calendar quarter in which the teen was randomly assigned. Therefore, year 1 is the 12-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Earnings data for the first half of year 1 were not available for this analysis.

Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

half of year 1 were $101 (41.9 percent) higher for initially enrolled teens in the program group than for their counterparts in the control group. In year 2, earnings impacts for this group were $228 (a gain of 28.0 percent). These earnings gains not only reflect an increase in the number of initially enrolled teens who were ever employed during these periods, but also indicate higher earnings for those who were. Earnings impacts were not sustained in later years because teens in the control group caught up with teens in the program group and increased their earnings as well. However, the overall four-year earnings impact ($544) remained positive for the initially enrolled teens, even though it was not quite statistically significant.

Findings on AFDC Receipt

- **Rates of AFDC receipt remained high throughout the four-year follow-up period, but were declining over time. More than 60 percent of all teens were on welfare for at least one of the last three months of follow-up, and close to 30 percent received AFDC continuously during the last two years.**

In any given month within the four-year follow-up period, a majority of teens in the program and control groups were receiving welfare. Quarterly rates of AFDC receipt declined from 100 percent at random assignment to 79.1 percent after two years, reaching 60.9 percent in the last quarter of year 4, with program group members being somewhat less likely to receive AFDC than control group members in at least one month in most quarters. However, at the end of the follow-up period, almost 22 percent of teens (or one in three of those receiving welfare) combined welfare with (some) work.

- **During the final two years of follow-up, LEAP reduced welfare receipt by increasing the number of teens who were not receiving any AFDC and reducing the number who were receiving AFDC in every single month.**

Figure 1 shows a distribution of the number of months of AFDC receipt during years 3 and 4 of the follow-up period. The black bars represent program group members, and the white bars represent control group members. The figure shows that LEAP increased the number of teens who left AFDC altogether during this time (shown in the first pair of bars) and decreased the number of teens who received AFDC in every one of the 24 months represented (shown in the last pair of bars).

- **LEAP reduced both the number of teens receiving AFDC and the amount of AFDC they received. Reductions were somewhat smaller for those not initially enrolled than they were for teens who were enrolled in school when they entered LEAP.**

Table 4 summarizes LEAP's impacts on AFDC during years 3 and 4 of the follow-up period (data were unavailable for earlier years). During this time, LEAP reduced the average number of months of AFDC receipt by three-quarters of a month (0.76 months), which amounts to a 4.7

Figure 1

**Number of Months the LEAP Research Sample Received AFDC
in Years 3 and 4 of Follow-Up**
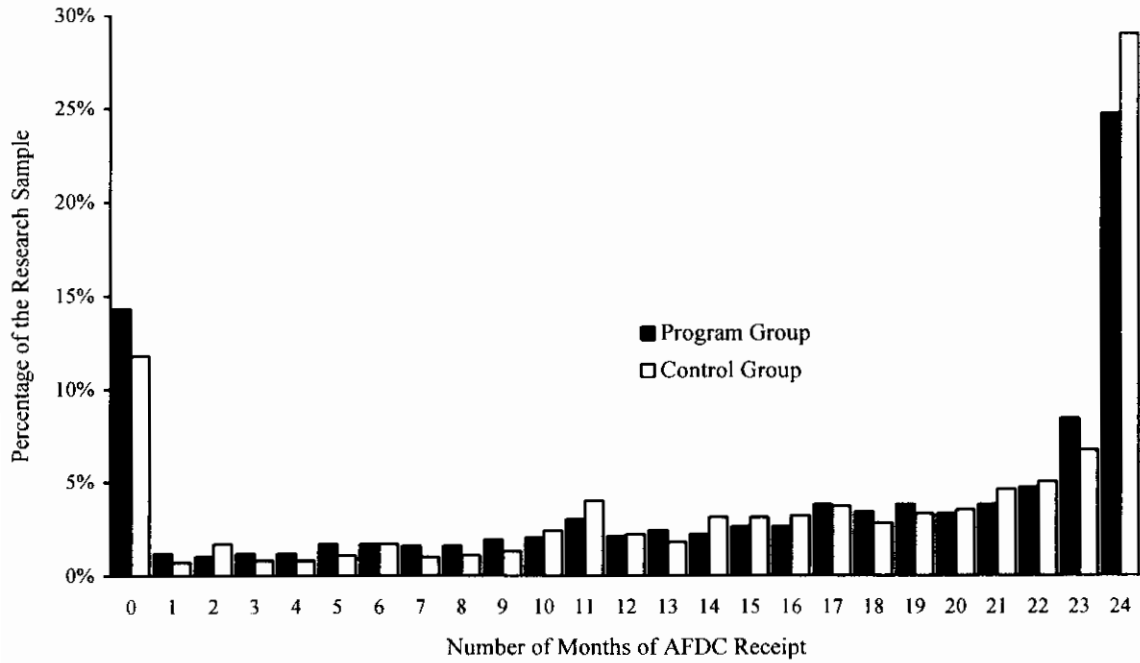
NOTE: For each individual sample member, the follow-up period started with the calendar quarter in which the teen was randomly assigned. Therefore, year 1 is the 12-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Table 4

**LEAP's Impacts on AFDC Receipt
in Years 3 and 4 of Follow-Up**

Measure	Program Group	Control Group	Difference (Impact)
Full Research Sample			
Ever received AFDC (%)			
Year 3, first half	79.9	82.5	-2.6 *
Year 3, second half	75.7	80.5	-4.8 ***
Year 4, first half	70.5	75.6	-5.1 ***
Year 4, second half	67.8	69.2	-1.4
Years 3 and 4	86.0	88.9	-2.9 **
Ever received AFDC in the last 3 months of year 4 (%)	61.5	60.9	0.6
Number of months on AFDC in years 3 and 4	15.27	16.03	-0.76 **
Amount of AFDC received in years 3 and 4 ($)	5,185	5,459	-275 **
Sample Members Enrolled in School or in a GED Program at Random Assignment			
Ever received AFDC (%)			
Year 3, first half	80.9	83.0	-2.1
Year 3, second half	76.8	82.1	-5.3 **
Year 4, first half	72.3	77.0	-4.7 **
Year 4, second half	68.6	70.3	-1.7
Years 3 and 4	87.0	89.4	-2.4
Ever received AFDC in the last 3 months of year 4 (%)	62.0	62.6	-0.6
Number of months on AFDC in years 3 and 4	15.55	16.35	-0.80 *
Amount of AFDC received in years 3 and 4 ($)	5,181	5,497	-316 **
Sample Members Not Enrolled in School or in a GED Program at Random Assignment			
Ever received AFDC (%)			
Year 3, first half	78.3	81.5	-3.2
Year 3, second half	73.9	78.2	-4.2 *
Year 4, first half	67.9	73.6	-5.7 **
Year 4, second half	66.7	67.6	-0.9
Years 3 and 4	84.5	88.0	-3.5 *
Ever received AFDC in the last 3 months of year 4 (%)	61.1	58.9	2.2
Number of months on AFDC in years 3 and 4	14.86	15.57	-0.71
Amount of AFDC received in years 3 and 4 ($)	5,172	5,395	-223

NOTES: For each individual sample member, the follow-up period started with the calendar quarter in which the teen was randomly assigned. Therefore, year 1 is the 12-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

     AFDC data for years 1 and 2 were not available for this analysis.

     Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

percent reduction relative to the control group average of 16.03 months. During the first six months of the last year of follow-up, the reduction in the rate of AFDC receipt peaked at 5.1 percentage points — a reduction comparable to those achieved by welfare-to-work programs for adult welfare recipients. This reduction in the rate of AFDC receipt was also reflected in the amount of AFDC received by teens in the LEAP program. The average amount of AFDC received was reduced by $275, or 5.0 percent, during years 3 and 4 of the follow-up period.

In contrast to the employment findings, AFDC impacts did not vary a great deal by school enrollment status at random assignment, although impacts for teens who were not initially enrolled were somewhat smaller and failed to reach statistical significance in some cases. They also declined faster toward the end of the four-year follow-up period.

- **During the last two years of follow-up, LEAP caused reductions in the amount of AFDC received that exceeded the program's positive effects on earnings.**

In years 3 and 4 of follow-up, program group members' cash income from AFDC and earnings was $345 less than that available to teens in the control group, whose cash income was $8,693 over those two years. This 4.0 percent reduction (not quite statistically significant) occurred because earnings gains among program group members were not large enough to offset reductions in AFDC payments. The loss of cash income from AFDC and earnings was greatest for teens who were not initially enrolled ($586 on average) because they experienced welfare reductions without any offsetting earnings gains. The corresponding loss for initially enrolled teens was only $101, which was not statistically significant. However, some of the reductions in combined cash income from AFDC and earnings may have been offset by the Earned Income Tax Credit (EITC), increases in the receipt of Food Stamps, or other unmeasured sources of income.

The Costs and Benefits of LEAP

- **The LEAP program was relatively inexpensive, with an upfront investment by the Ohio Department of Human Services of $1,388 per teen, or $747 for 12 months. Costs were higher for initially enrolled teens than for those not initially enrolled.**

Over the four-year follow-up period for this report, program group members were in LEAP an average of 22.3 months, at a net cost to ODHS of $1,388 per program group member, or $747 for 12 months. (Net cost refers to the average cost per program group member minus the average cost per control group member. Although control group members were not eligible for LEAP, they were eligible for its child care services.) The net costs were higher for the initially enrolled group ($1,659) than for those who entered the program as school dropouts ($1,067). This is because the former were younger and thus in LEAP longer (24.0 months, on average, compared with 19.9 for those not initially enrolled). These costs translate into 12-month net costs of $830 (for the initially enrolled) and $643 (for those not initially enrolled).

Table 5 shows the net cost to ODHS per LEAP teen by component. The case management/county administrative cost ($1,140 per program group member), which accounted for most of the cost, includes expenditures for all program-related activities on behalf of LEAP teens: orientation, initial and yearly assessments, referrals for child care, providing transportation stipends, monitoring school enrollment and attendance, and arranging for bonuses and sanctions. In addition, case managers frequently offered guidance in their ongoing contact with teens. The case management/county administrative cost also includes expenditures for administrative supervision and general overhead.

LEAP's incentives themselves did not add to the program's total net cost because, on average, teens received slightly more sanctions than bonuses, leaving only the administration of the incentives as a cost to ODHS. The cost to ODHS of transportation for LEAP teens to attend school was $134 per program group member, and child care costs to ODHS averaged $258 per program group member, slightly more than the control group average of $185; 7.6 percent of program group members and 5.5 percent of control group members used child care paid for by LEAP, which was limited to licensed providers and was available only to teens attending school.

- **Because of LEAP-induced savings in AFDC, Food Stamps, and related Medicaid expenditures, ODHS recovered its investment in the program over the four-year follow-up period.**

Benefits of the LEAP program were estimated using the available administrative earnings and welfare data, supplemented with approximations of taxes paid, tax credits received, Food Stamps received, and Medicaid expenditures incurred. As shown in Table 6, over four years ODHS recovered its investment in LEAP, with a return of 99¢ per $1 invested. (In this context, net gains and losses refer to what was spent and saved on program group members compared with control group members.) The program was somewhat more cost-effective for initially enrolled teens.

A related analysis takes into account costs and financial benefits to taxpayers as a result of the LEAP program. Again, these are "net" costs and benefits — the average for the program group minus the average for the control group — over the four-year follow-up period. From this "taxpayer perspective," the costs were the ODHS costs plus $332 incurred by other agencies (mainly $518 for the additional LEAP-generated attendance in high school and in GED programs, which was partly offset by savings in other employment-related services). Most of the financial benefits were the savings in AFDC, Food Stamps, and Medicaid. As shown in Table 6, taxpayers recovered 75¢ of every $1 invested in LEAP, even after factoring in the additional education costs attributable to LEAP's getting more teens to remain in or return to school.

- **LEAP teens experienced a net loss of $1,110 over the four years.**

As suggested by the earlier discussion of the program's impacts on cash income from AFDC and earnings, the story was different for LEAP teens, who experienced a net loss of more than $1,100 during the four-year follow-up period. As shown in Table 6, both initially enrolled and

Table 5

**Estimated Cost of LEAP to the Ohio Department of Human Services
per Program and Control Group Member**

Cost Component	Average LEAP Cost per Program Group Member	Average LEAP Cost per Control Group Member	Net LEAP Cost to ODHS per Program Group Member
Case management/county administrative cost	$1,140	$0	$1,140
State administration	47	0	47
Incentives (bonuses minus sanctions)	-6	0	-6
Transportation	134	0	134
Child care	258	185	73
Total	1,573	185	1,388

NOTE: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the four-year follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

Table 6

LEAP's Four-Year Benefit-Cost Results (in 1991 Dollars)

Measure	LEAP Teens	ODHS Budget	Taxpayers
Full Research Sample			
Net gain or loss	-$1,110	-$13	-$347
Return per net dollar invested in LEAP	n/a	$0.99 per $1	$0.75 per $1
Sample Members Enrolled in School or in a GED Program at Random Assignment			
Net gain or loss	-$1,032	$42	-$709
Return per net dollar invested in LEAP	n/a	$1.03 per $1	$0.57 per $1
Sample Members Not Enrolled in School or in a GED Program at Random Assignment			
Net gain or loss	-$1,159	-$132	-$112
Return per net dollar invested in LEAP	n/a	$0.88 per $1	$0.89 per $1

NOTE: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the four-year follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

not initially enrolled teens experienced losses (e.g., reductions in AFDC receipt, Food Stamps, and Medicaid eligibility) that were not offset by gains (e.g., from earnings and tax credits). Even though the initially enrolled group experienced some positive earnings impacts, reductions in AFDC and other public benefits were also greater for this group. On the other hand, LEAP teens may experience long-term benefits from the additional education and education credentials they received. These long-term benefits may outweigh the losses apparent in the four years covered by the evaluation.

Implications for Policy and Program Design

- **The LEAP results suggest that it is sensible to include a LEAP-like approach as one element of a state's welfare strategy.**

LEAP has proved itself to be a promising approach to increasing school involvement among teen parents on welfare. As other states continue to develop their teen parent strategies, they may want to pursue similar approaches. The main challenge — one that ODHS has addressed in its recent modifications of LEAP — is not only to increase school attendance but, beyond that, to improve high school graduation rates so that these young mothers have a better chance of success in the labor market and a route to self-sufficiency.

- **The LEAP experience highlights the importance of meeting the implementation challenges inherent in such programs, particularly the need for ongoing case management and well-designed management information systems.**

The LEAP program relies on case managers who are dedicated to working with teen parents, and who are supported by a computerized case information system. Without ongoing case management, a program like LEAP would be very difficult to implement: The attendance monitoring role that case managers play is central to the program, as is the role of providing assistance and information to teens.

In order to implement programs like LEAP, it is also necessary to develop a well-designed management information system. The need to integrate welfare data, school data, and case management information to provide correct and timely incentives places a substantial burden on the information system available to program administrators. With the 1996 federal welfare law requiring school attendance by unmarried, custodial, minor teen parents receiving federal Temporary Assistance for Needy Families (TANF) funds, other states will be pushed to develop programs similar to LEAP, and many will confront system development tasks similar to those that faced ODHS.

- **The importance of initial school enrollment status as a predictor of program success underscores the need to prevent teen parents from dropping out of school. Recent program changes address this problem by**

limiting LEAP's pregnancy and age-of-child exemptions, which could have accounted for some teens' dropping out after becoming pregnant.

This report shows that teens who were in school when they were reached by LEAP had better outcomes and experienced stronger program effects than teens who had dropped out of school before LEAP reached them. Apparently, it is more difficult to work with teens after they have dropped out of school already. Therefore, it is important to develop interventions and policies that prevent teens from dropping out in the first place.

One way that ODHS has approached this issue is by changing the LEAP program's exemption policy. Previously, LEAP teens were exempt from the program after the first trimester of pregnancy and up to three months following the birth of their child. This means that a teen could have been out of school for nine months, which would have set her back academically and would have increased the risk that she would drop out altogether. As part of the program changes implemented in 1996, the pregnancy exemption was eliminated (except in cases of medical need), and the post-partum exemption was reduced to six weeks from three months. It is hoped that these changes will reduce dropout among LEAP teens.

- **LEAP's impact on school attendance was encouraging, and would be strengthened if more teens responded to the program's incentive structure. This outcome might be achieved by changing the incentive structure and its implementation, and by directly addressing teens' reservations about going to school.**

School attendance might be further boosted by enhancing the teens' general understanding of the LEAP incentives, reinforcing their awareness of the short-term financial benefits of meeting LEAP's requirements (partly by modifying procedures so that the bonuses can be paid more rapidly), and continuing to stress the longer-term benefits of completing one's education. The size of the incentive could also be increased. With sanctions and bonuses combined, LEAP's incentive was already substantial, but ODHS's decision to dramatically increase sanctions for teens who do not comply with LEAP's regulations for six consecutive months is likely to increase compliance, albeit simultaneously increasing the risk to teens (and their families) who are unable or unwilling to meet LEAP's requirements.

Some teens may not stay in school (or re-enroll in school) despite LEAP's incentives because they feel that the cost of staying in school or going back is simply too high to be offset by the incentives offered to them. Some are working, and may experience a loss of income if they return to school. Others do not want to go back to school because they want to spend time with their children or do not want to leave them in the care of strangers. Yet others say that they consider school a dangerous place, feel unwelcome there, or find it to be a poor environment in which to learn. All of these practical considerations and negative feelings represent a "cost" of returning to school. Reducing these costs could further increase school attendance. For example, teens could be allowed to receive reimbursement for child care options they are comfortable

with (instead of relying entirely on licensed day care), and the school environment could be improved.

Finally, it is important to acknowledge that many teen parents have academic problems or have dropped out before they became parents, which suggests that their academic problems may not be related to their status as teen parents. Other types of assistance, or more general school reform measures, may be needed to help teens who drop out for academic reasons prior to becoming teen parents.

- **In addition to stimulating school enrollment and attendance, programs like LEAP should provide incentives that specifically reward academic progress and school completion. Special school-based services may be needed to improve school outcomes for teen parents who respond to incentives and return to school.**

Rewarded for "seat time" with attendance bonuses, some of the teens who responded to the LEAP program may not have had an incentive to actually make academic progress, earn credits, and work toward graduation. In fact, teens who regularly attended school, and made steady academic progress, were in a sense penalized for graduating or earning a GED because at that point they could no longer receive bonus payments for continuing to attend. This suggests that programs like LEAP should develop incentives that emphasize school performance and graduation in addition to seeking increases in school enrollment and attendance. For example, ODHS has recently implemented grade completion bonuses, which are paid when teens successfully complete one grade and are promoted to another (except grade 12), and a graduation bonus when teens successfully complete high school or obtain a GED. Alternatively, bonuses could be based on grades, which reflect both attendance *and* academic performance.

LEAP's high school completion impacts may also be improved by providing tutoring and remedial classes that help teens clear the hurdles associated with earning a high school diploma, such as required courses and school-wide achievement tests. Finally, incentives and counseling should emphasize the importance of completing high school, as opposed to dropping out to pursue a GED or to seek employment instead.

- **Special attention is needed for teen parents who had dropped out but who returned to school because of LEAP, and for older teens who were far behind in their schooling when they dropped out.**

The results of the LEAP evaluation indicate that teens who were not enrolled in school or in a GED program when they became eligible for LEAP were at particularly high risk of making some academic progress but then failing to graduate from high school. Special attention is needed for these teens, including stronger efforts by the schools themselves, to foster the retention and academic progress of teen parents who are induced to return to school with financial incentives and start out at a disadvantage.

Experience with LEAP also made it clear that it often is neither feasible nor desirable to place long-term dropouts who are not of compulsory school age into low grade levels that fit their academic skills (e.g., placing an 18-year-old in the 7th grade). To address this issue, ODHS's recent changes in the program included the provision that if no appropriate education activity can be found for these teens, they will be transferred to the JOBS welfare-to-work program and will be subject to JOBS participation requirements.

- **The 1996 federal welfare law poses important challenges for policymakers who develop and administer teen parent programs like LEAP. In addition to getting teen parents to attend school, programs must now address work requirements and time limits on receipt of federally provided welfare assistance that will affect young parents after they graduate or age out of programs like LEAP. Therefore, these programs may have to combine their education message and incentives with more employment-oriented activities.**

As states continue to operate or launch learnfare programs for teen parents on welfare under the new welfare rules, they will need to consider the employment and welfare prospects facing these teens once they leave school. As teens graduate or reach the age of 20, they will likely become subject to the same work requirements and time limits that may apply to adult recipients of welfare. Therefore, it may be necessary for LEAP and other such programs to implement services and incentives that encourage teens to work, or make connections with the world of work, outside regular school hours. Fortunately, the employment data presented in this report show that many teens engaged in temporary and part-time employment, even without an intervention that specifically tried to make them do so. LEAP and similar programs could build on these teens' apparent eagerness to work by offering opportunities for paid internships and part-time work during the summer and after school. By integrating these opportunities into LEAP and other programs, cooperation with those programs could become attractive to more teen parents on welfare, thereby enhancing the overall effectiveness of these programs.

- **The problems facing teen parents on welfare are substantial and complex. LEAP successfully addressed one problem area by increasing these teens' school attendance. However, more needs to be done to improve the self-sufficiency of these teens and to reduce the persistent poverty among them. The LEAP evaluation shows that there are no easy answers. More experimentation is necessary, both within and outside the context of the LEAP program.**

By providing both positive and negative financial incentives, the LEAP program uses an innovative approach to induce teen parents to attend school. This report showed that this approach holds promise. However, by design it addresses only part of the problem facing teen parents on welfare, and only some of the causes of their potential long-term dependency. It will be important for governments and program administrators to continue to experiment with different approaches to changing the behavior and improving the outcomes for teen parents and their chil-

dren. While some of these may be targeted specifically at teens and the problems of teenage parenthood, others may have to address the broader social and economic circumstances that affect the lives and opportunities of low-income young people and the choices they make.

By creating, implementing, rigorously testing, and continuously seeking to improve the LEAP program, the State of Ohio and the Ohio Department of Human Services took a pioneering step. The program's designers and administrators well knew how complex and daunting was the issue of teen parenting and the associated long-term welfare receipt, but they also knew how little had been proven to work in this area, and how critical was the need for promising new approaches. ODHS has already put to work lessons from this evaluation — about both the program's strengths and limitations — by making far-reaching changes to LEAP. For Ohio and the nation, tracking how this modified program works will be important to the development of responsible and effective social welfare policy.

Chapter 1

The LEAP Program

I.   Introduction

This report is the fifth and last in a series analyzing the effectiveness of Ohio's Learning, Earning, and Parenting (LEAP) Program.[1] LEAP, a statewide program developed and managed by the Ohio Department of Human Services (ODHS), uses financial incentives and penalties along with case management and some support services, to promote school attendance by pregnant teenagers and custodial teen parents on welfare, the group most likely to become long-term welfare recipients. The program requires such teens who are in school to attend regularly,[2] while those who have dropped out must enroll in high school or a program to prepare for the GED (General Educational Development) test, which one must pass to receive an Ohio Certificate of High School Equivalence.[3] Teens who comply with LEAP's rules receive bonus payments — $62 for school enrollment and an additional $62 each month they attend school regularly — and teens who do not comply (without an acceptable reason) have $62 deducted from their monthly welfare grant. Teens' enrollment and attendance are monitored by case managers, who also offer guidance and authorize assistance with child care and transportation for teens complying with the rules. LEAP relies on the education system to provide all other services. By requiring school attendance, LEAP tries to trigger a chain of effects on the teens' behavior — promoting academic progress, increasing the proportion of teens who earn a high school diploma or a GED, and eventually producing gains in employment and reductions in welfare dependence.

In September 1996, guided in part by the flow of findings from this evaluation, ODHS began implementing changes in LEAP's rules and incentives so as to build upon and improve the program's achievements. Although this report does not include a study of these changes (or attempt to mention all of them), it does discuss them in light of the evaluation results (see Chapter 7); several of the changes are also noted in the present chapter.

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[1]The four previous reports are: Dan Bloom, Hilary Kopp, David Long, and Denise Polit, *LEAP: Implementing a Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1991; Dan Bloom, Veronica Fellerath, David Long, and Robert G. Wood, *LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1993; David Long, Robert G. Wood, and Hilary Kopp, *LEAP: The Educational Effects of LEAP and Enhanced Services in Cleveland,* 1994; and David Long, Judith M. Gueron, Robert C. Wood, Rebecca Fisher, and Veronica Fellerath, *LEAP: Three-Year Impacts of Ohio's Welfare Initiative to Improve School Attendance Among Teenage Parents,* 1996. This chapter is adapted from the introductory chapter of the 1996 report.

[2]For high school students, "regular attendance" was defined as having no more than two unexcused absences and no more than four total absences in a month. Also, there were some middle school students in LEAP but, for brevity's sake, this report refers only to "high school" (or, more generally, to "school").

[3]In Ohio, preparation for the GED test is usually provided in Adult Basic Education (ABE) programs or, since late 1992, Adult Basic and Literacy Education (ABLE) programs. These are popularly known as "GED programs," and are so referred to in this report.

The Manpower Demonstration Research Corporation (MDRC) evaluated LEAP, using a random assignment research design, from the time program operations began in July 1989. Between then and September 1991, close to 10,000 eligible teenage parents in 12 counties throughout Ohio — which encompassed about two-thirds of the statewide LEAP caseload — were randomly assigned to a program group (which was subject to LEAP's rules and incentives) or a control group (which was not). The subsequent measured differences between the two groups are the "impacts" (effects) of LEAP's package of bonuses, penalties, case management, and support services.

This report focuses on the experiences of 4,151 teens who were randomly assigned during LEAP's second year of operation (mid-August 1990 through September 1991), and so experienced the program when it was more fully implemented than it had been at the start. Some outcomes are presented for a subset of these teens who responded to a survey administered in 1994 in seven of the 12 research counties. Results presented for this survey sample summarize findings presented more extensively in the previous (1996) report. The primary purpose of this final report is to present longer-term (four-year) effects of LEAP on the teens'[4] employment, earnings, and welfare receipt and to conclude the evaluation with a benefit-cost analysis, which directly compares program costs with welfare-related savings and earnings gains.

The findings presented in this report emerge at a time of profound change in U.S. social policy. The 1996 federal welfare law — the Personal Responsibility and Work Opportunity Reconciliation Act — has important implications for teen parents who receive (or will receive) welfare. The law ends the federal entitlement to cash assistance; it devolves responsibility for the development of welfare policy to the states; and it imposes a set of detailed rules regarding the use of federal funds for cash assistance. Under the law, unmarried custodial teen parents younger than 18 years of age who have not graduated from high school or received a GED or comparable credential, and whose children are at least 12 weeks old, may not receive federally funded welfare assistance unless they attend high school or a program that prepares them to earn an alternative education or training credential. Therefore, even though the LEAP evaluation predates the recent reforms, the findings presented in this report are of great relevance to state policymakers facing the task of developing welfare policy for teen parents in the context of new federal requirements. (Prior to the law's enactment, some 25 states had already instituted some form of school requirement for teen parents on welfare.)

This evaluation was conducted under contract to the Ohio Department of Human Services, with additional funding provided by the Ford Foundation, the Cleveland Foundation, BP America, the Treu-Mart Fund, the George Gund Foundation, the Procter & Gamble Fund, and the U.S. Department of Health and Human Services.

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[4]Sample members are referred to as "teens" in this report, but by the end of the four-year follow-up period, most were in their early twenties.

II. LEAP's Rationale and Distinctive Features

LEAP is an innovative policy intervention that seeks to reduce future welfare receipt by encouraging teen mothers to take an important step toward self-sufficiency: completing their secondary education. Dropping out of school is only one of the many negative consequences traditionally associated with teenage childbearing; others include persistent poverty, long-term welfare receipt, single parenthood, unemployment, and poor outcomes for the children of teen mothers.[5] For example, teen parents make up fewer than 10 percent of all Aid to Families with Dependent Children (AFDC) case heads, but families started by women who first gave birth as teenagers account for approximately 50 percent of all long-term AFDC recipients.[6]

Failure to finish school leaves young mothers without the basic skills to succeed in the labor market (Berlin and Sum, 1988; Sum, Taggart, and Fogg, 1995); indeed, the earnings prospects of women who have not finished school have steadily declined over the last two decades (Levy and Murnane, 1992; Murnane, Willett, and Boudett, 1995). Dropping out of school places young mothers at especially high risk of lengthy welfare stays. Bane and Ellwood's (1983) pioneering analysis of data from the Panel Study of Income Dynamics indicated that women under the age of 30 who went on welfare after giving birth as unmarried mothers and who were high school dropouts averaged 10 and 6 years on the welfare rolls for nonwhite and white women, respectively.

LEAP marked an important departure from the many programs for teenage parents developed by schools, health agencies, and community-based organizations since the 1970s, which have typically provided educational instruction — often oriented toward preparing students to take the GED test — as well as counseling, parenting classes, and other services to further participants' personal development. Such programs have usually enrolled relatively small numbers of young women who volunteered for their services, and they have consequently reached only a fraction of the teen parents on welfare in the areas they serve, sometimes at a relatively high cost per enrollee.

LEAP differs from these earlier initiatives in three major ways. First, rather than being voluntary and small-scale, LEAP is mandatory for all teen parents receiving AFDC in Ohio who are in school or who have dropped out. Second, it uses financial incentives to increase attendance and achieve its aims. Third, it relies on the public school and adult education systems to provide education to the teens.

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[5] In recent years, a number of social scientists have disputed the notion that teenage childbearing is the cause of many of these negative consequences (Bachrach and Carver, 1992; Hotz, McElroy, and Sanders, 1996). They point out that young women who become pregnant and opt to have and keep their babies are more likely than others to be poor and to have reduced life prospects in the first place.

[6] In Ohio, this program is known as ADC. However, this report uses the federal abbreviation, AFDC. The AFDC program was replaced by block grants to the states under the 1996 welfare law, after the period covered by this report and evaluation.

LEAP's approach was modeled in part on the welfare-to-work initiatives geared toward adults that have been operated by state welfare agencies since the early 1980s, which have targeted a broad segment of the welfare population and have used negative financial incentives to increase participation in employment-focused activities. In these programs, individuals who fail to comply with program participation requirements have been subject to a "sanction" — i.e., a reduction of their welfare grant. Many welfare-to-work programs have been found to produce significant increases in earnings and reductions in welfare (see, e.g., Bloom, 1997; Gueron and Pauly, 1991; Riccio, Friedlander, and Freedman, 1994; Freedman and Friedlander, 1995).

Because federal legislation exempted women whose children were younger than three years old from participating in such programs (and, until 1987, exempted women whose children were younger than six), teenage parents were generally not subject to these requirements. However, LEAP was able to draw on the experiences of Wisconsin's Learnfare program, which extended this mandatory and universal approach to younger AFDC recipients. Started in 1987, the Wisconsin program requires AFDC recipients between the ages of 13 and 19 (including those who are not parents) to regularly attend school or an alternative program leading to a high school diploma or a GED in order for their families to receive their full AFDC grant. Two evaluations have found that this program has had little success in improving school attendance among teenagers in AFDC households whether or not they are parents (Pawasarat, Quinn, and Stetzer, 1992; and State of Wisconsin Legislative Audit Bureau, 1996, as cited in Bloom, 1997).

A mandatory approach was also taken in the Teenage Parent Demonstration, sponsored by the U.S. Department of Health and Human Services. This demonstration began operations in Camden and Newark, New Jersey, and in South Chicago shortly after Wisconsin's Learnfare began and required teen parents who were new AFDC recipients to participate in one or more activities, including education, or incur a sanction. Evaluation results for this program have generally been somewhat encouraging for those teens who were in high school or had completed high school at the start of the intervention (Maynard, Nicholson, and Rangarajan, 1993).

LEAP has gone beyond these initiatives in pioneering the use of positive as well as negative financial incentives. It offers monetary rewards for desired behavior (school enrollment and regular attendance) as well as financial penalties for behavior that violates the norms the program seeks to promote.

III.   The LEAP Model

Participation in LEAP is mandatory for all pregnant women and custodial parents (almost all are women) under 20 years old who are receiving AFDC and do not have a high school diploma or a GED.[7] This includes both teens who head welfare cases and those who receive assistance on

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[7]During LEAP's first year of operations, participation was not mandatory for pregnant women and the age limit was 19 rather than 20.

someone else's case (usually their mother's). All eligible teens are required to enroll (or remain enrolled) in and regularly attend a school or education program leading to a high school diploma or a GED.[8]

LEAP has created a three-tiered incentive structure:

- **Grant increases.** Teens who provide evidence of school enrollment receive a bonus payment of $62. They then receive an additional $62 in their welfare check for each month in which they meet the program's attendance requirements (see Table 1.1).[9]

- **Grant reductions.** Teens who do not attend an initial LEAP assessment interview, or who fail to verify enrollment in school, have $62 deducted from their grant (i.e., the teens are sanctioned) each month until they comply with program rules. Similarly, enrolled teens are sanctioned by $62 for each month in which they exceed the allowed number of unexcused absences.[10]

- **Unchanged grants.** Teens who exceed the allowed number of *total* absences, but do not exceed the allowed number of *unexcused* absences, receive neither a bonus nor a sanction.

LEAP's sanctions and bonuses can substantially change the income of participants. During most of the period covered by this analysis, a teen living on her own with one child (the most common situation) was eligible for an AFDC grant of $274 per month.[11] A bonus increased her grant to $336; a sanction reduced it to $212. Thus, the total difference in AFDC grants between a teen who enrolled in school and attended regularly and one who failed to enroll and attend without a good reason was $124 per month. The program's requirements for receipt of bonuses and sanctions are summarized in Table 1.1.

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[8]The recent changes in LEAP's rules provide more flexibility with regard to LEAP teens who are no longer of compulsory school age (i.e., have reached age 18). If an appropriate education activity cannot be found for such a teen, she can be transferred to the Job Opportunities and Basic Skills Training (JOBS) Program, the employment and training program for adult AFDC recipients.

[9]The recent changes include the addition of a $62 bonus upon successful completion of a grade level, except grade 12, and $200 upon the receipt of a high school diploma or a GED. Grade completion bonuses are not awarded to LEAP teens who enroll in GED programs instead of regular high school.

[10]Under the recent rule changes, a teen who has two consecutive sanctions is now required to attend a face-to-face interview with her case manager, at which time the case manager attempts to resolve issues that are barriers to the teen's compliance with the program. Unless the teen is subsequently exempted, her and her children's entire cash grant (but not the related benefits) is to be eliminated after six consecutive months of sanctions (assuming that the face-to-face interview had been scheduled).

[11]A teen living on her own with two children received $396 when she earned a bonus, compared with $272 when her grant was reduced owing to a sanction. These grant levels were in effect between 1990 and 1992. The levels were slightly lower in 1989 and slightly higher in 1993.

Table 1.1

Application of School Enrollment and Attendance Standards in LEAP[a]

Standards	Monitoring Procedures	Bonus/Sanction Guidelines
Enrollment		
Teens are required to be enrolled in a school or education program leading to a high school diploma or its equivalent (a GED) during the entire time they are eligible for LEAP.[b] A temporary exemption is granted if child care or transportation is not available, or for other reasons considered legitimate by the program. During the period of this study, teens could also be exempted if they were in the last seven months of a pregnancy or were caring for a child under three months old.[d]	(1) After an initial LEAP assessment meeting, a teen has 10 days to provide proof of school enrollment. (2) Continued enrollment in the school or program for which proof was provided is monitored using records submitted by the school or program.	(1) When a teen verifies enrollment, she (or the head of the AFDC case) receives a $62 enrollment bonus. A teen who fails to verify enrollment is sanctioned with a $62 AFDC grant reduction each month until she complies.[c] (2) A further $62 enrollment bonus is paid for each additional school year in which the teen is enrolled.[e]
Attendance		
Once enrolled, teens are expected to attend regularly. For full-time high school (or junior high school) programs, this means two or fewer unexcused absences in a month and four or fewer total absences in that month. For part-time programs, attendance standards are based on the number of scheduled days.	Attendance is monitored using monthly records submitted by the school or program. Teens are given a chance to demonstrate that they had "good cause" for absences: The teen or her child was ill or injured, normal child care or transportation was not available and alternatives could not be found, etc.	A $62 bonus is paid for every month in which a teen meets the attendance requirement.[f] (The bonus is also paid when the month's attendance could not be determined but enrollment had been verified.) A $62 sanction is imposed for every month in which a teen fails to meet the standards.[c] The teen receives her normal AFDC grant (no bonus or sanction) if she exceeds the allowed number of total absences but not the allowed number of unexcused absences.

NOTES: [a] In September 1996, ODHS began implementing important changes in LEAP's rules and incentives. This study (and table) does not reflect these changes. They are, however, discussed in Chapter 7, and the following notes point out some of the key modifications.

[b] LEAP teens who are no longer of compulsory school age (i.e., have reached age 18) may now be transferred to the Job Opportunities and Basic Skills Training (JOBS) Program — the employment and training program for adult welfare recipients — if an appropriate education activity cannot be found for them.

[c] A teen who has two consecutive sanctions is now required to attend a face-to-face interview with her case manager, in which the case manager attempts to resolve issues that are barriers to the teen's compliance with the program. Unless the teen is subsequently exempted, her and her children's entire cash grant (but not the related benefits) is now to be eliminated after six consecutive months of sanctions.

[d] Except where there are medical problems, the exemption for teens in the last seven months of pregnancy has been eliminated, and the postpartum exemption has been shortened to six weeks.

[e] These additional enrollment bonuses have now been eliminated.

[f] Upon completing a grade level (except grade 12), a teen is now given an additional bonus of $62; upon receiving a high school diploma or a GED, she is now given an additional $200.

Because teens have several opportunities to provide evidence of "good cause" for absences that schools define as unexcused,[12] there is a three-month lag between the month of attendance and the corresponding sanction or bonus. For example, poor attendance in October triggers a program sanction in January.[13] Teens may be temporarily exempted from LEAP's requirements if child care or transportation is unavailable or for other reasons considered legitimate by the program.[14] During the period of this study, teens could also be exempted if they were in the last seven months of a pregnancy or were caring for a child under three months old.[15] Teens are no longer subject to LEAP's requirements after they reach the age of 20, leave AFDC, or receive a high school diploma or a GED.

Under Ohio's county-administered welfare system, LEAP is operated by the County Department of Human Services (CDHS) in each of the state's 88 counties. Each eligible teen is assigned to a CDHS case manager, who monitors her compliance with program rules to determine whether a bonus or sanction is warranted, offers guidance, and authorizes assistance with child care and transportation while the teen is attending school and if she is complying with LEAP's rules.[16] Besides child care and transportation cost reimbursement, LEAP also offered only case management services. Any other services were provided by schools, education programs, or other agencies, not by LEAP. Two programs are particularly noteworthy.

The Ohio Department of Education operates the Graduation, Reality, and Dual-Role Skills (GRADS) Program, as well as the Graduation, Occupation, and Living Skills (GOALS) Program. GRADS funds home economics teachers to provide instruction in parenting and life skills to pregnant and parenting students in many high schools in the state. GOALS provides similar services to young parents (ages 16 to 30) who have dropped out of school; the program is linked to selected GED programs operated by urban school districts. Both programs are available to eligible students regardless of whether they are on welfare, and thus were available to members of the control group as well as to LEAP teens.

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[12]Absences for which the teen provides a physician's statement are not counted under LEAP rules.

[13]When LEAP staff receive attendance information for a teen for a specific month (ideally, by the fifth of the subsequent month), teens who fail to earn a bonus are notified by mail and have seven days to provide evidence of good cause for absences reported by the school. If good cause is not granted and a sanction is proposed, teens are again notified by mail and are given an additional 15 days to request a hearing on the proposed sanction. If no hearing is requested during this period, the sanction is processed. Together, these two waiting periods mean that sanctions cannot be processed in the first or second month following the poor attendance.

[14]Teens who were exempt during a pregnancy or because they were caring for an infant could "volunteer" for LEAP, in which case they could receive bonuses for attending school regularly. Otherwise, exempt teens received neither bonuses nor sanctions.

[15]Except in cases of medical problems, teens in the last seven months of a pregnancy are no longer exempted, and the three-month postpartum exemption has been shortened to six weeks.

[16]The functions and average caseload of LEAP case managers have been similar to those of case managers in welfare-to-work programs for adults (see Doolittle and Riccio, 1992). The average caseload was well over 100 during most of the period covered by this analysis. For example, in the fall of 1992, the average caseloads were 120 in Cuyahoga, 100 in Hamilton, and 135 in Stark. The caseload was under 100 only in Franklin, where LEAP case managers were responsible for AFDC as well as LEAP duties for their entire caseload.

Finally, as a special project within the LEAP evaluation, an enhanced version of LEAP was put in place on a pilot basis in some Cleveland high schools; it offered school-based services, such as child care and intensive case management, as well as special GED classes and other services for teens who were not complying with LEAP (see Long, Wood, and Kopp, 1994).

IV.   An Overview of This Report

Chapter 2 describes the evaluation's random assignment research design and the data sources and samples used for this report. Chapter 3 briefly summarizes the implementation of LEAP's financial incentive structure, provides estimates of bonus and sanction rates, and summarizes earlier findings on school enrollment, school attendance, and receipt of education credentials. Next, Chapters 4 and 5 examine LEAP's impacts on longer-term employment outcomes and AFDC receipt, respectively. Chapter 5 also estimates program impacts on total cash income — i.e., AFDC and earnings combined. Chapter 6 follows with a comparison of program costs and benefits from several different perspectives, including the teens', ODHS's, and the taxpayer's. Chapter 7 concludes this report with a discussion of policy implications.

Chapter 2

The LEAP Evaluation and Data Sources
and Samples for This Report

I. Introduction

The LEAP evaluation used a random assignment research design and multiple data sources to study the implementation, impacts, and cost-effectiveness of the program.[1] The purpose of this introductory section is to provide an overview of the data sources and samples for the evaluation as a whole and this final report specifically. The remainder of this chapter describes the evaluation's research design and then discusses the data sources and samples in more detail.

Part of this final report (primarily Chapter 3) reviews and summarizes analyses presented in previous reports. These analyses used several data sources: (1) a survey of 1,188 teens (in seven counties) for whom there were at least 12 months of follow-up data from the time each teen entered the study (i.e., had been randomly assigned to the program group or control group), and focused primarily on the teens' early experiences in LEAP and their school enrollment status at the one-year point; (2) a review of 263 LEAP case files from Cuyahoga, Franklin, and Hamilton counties (Cleveland, Columbus, and Cincinnati) to study LEAP's implementation in general and the bonus/sanction process in particular; (3) several focus group meetings with selected teens in the program group in Cleveland, Columbus, and Cincinnati, conducted to get a more in-depth account of their experiences in the program; and (4) a three-year survey of 913 teens (in the same seven counties included in the first survey), administered approximately three years after random assignment. The survey measured education outcomes, including school attendance, graduation rates, and GED receipt. Chapter 3 also includes longer-term data on bonus and sanction rates, as discussed below.

The three-year survey also measured employment and welfare outcomes. New impact analyses presented in this report focus on longer-term (four-year) employment and earnings outcomes (Chapter 4) and AFDC receipt (Chapter 5), and are based on administrative data from the statewide Unemployment Insurance and welfare systems, respectively. For the first time, data for the impact analysis were available for all 12 research counties. The sample for these new analyses included 4,151 teens (3,479 program group members and 672 control group members), randomly assigned between mid-August 1990 and September 1991 — i.e., those who entered the study in the second (and last) year of random assignment. This sample — often referred to in this report as the "research sample" — was chosen for two reasons. First, teens who entered the study

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[1] This report's description of data sources and samples used in earlier LEAP reports is adapted from Bloom et al., 1993, and Long et al., 1996.

later experienced a more mature (though still evolving) LEAP program than those who entered in the program's first year of operation. Second, for administrative reasons, AFDC and employment and earnings data were not available for the early part of the follow-up period: The employment data cover the last three-and-a-half years of the four-year period; the AFDC data cover years 3 and 4 only. By limiting the analysis to those randomly assigned after mid-August 1990, it was possible to present a consistent impact analysis, covering the same length of follow-up for all sample members. The three-year survey sample — the primary data source for the previous report — was also drawn from teens who were randomly assigned in the second year of random assignment, and, therefore, is a subsample of the research sample for the present report.

Finally, as described in Chapter 6, the analysis of LEAP's cost-effectiveness (over the same four-year follow-up period) uses a variety of data. The basic goal is to determine LEAP's net costs and benefits — the costs and benefits per teen in LEAP (the program group) minus the costs and benefits that would have accrued per teen even in the absence of the program (represented by the control group). To achieve this, the analysis uses the earnings and AFDC impacts presented in Chapters 4 and 5 (and, accordingly, the same sample of 4,151 teens and the same data sources — administrative records from the state's Unemployment Insurance and welfare systems). Using the AFDC records, it was also possible to update the bonus and sanction rates (information that is presented in Chapter 3 and informs the benefit-cost analysis). The benefit-cost analysis also required the collection of program and tax data, including financial information from ODHS, the Ohio Department of Education, and other service providers (such as child care providers), for estimating the program's costs, and information for use in approximating taxes paid by employed teens, tax credits and Food Stamps they received, and Medicaid expenditures they incurred.

II.   The Research Design

MDRC's evaluation of the LEAP program was designed to provide reliable evidence about the program's success in improving such outcomes as school enrollment and attendance, graduation rates, employment, and, ultimately, self-sufficiency for teen parents receiving welfare. The evaluation was conducted in 12 counties in Ohio, which include most of the state's major cities and encompassed about two-thirds of its eligible teen parent caseload. The 12 counties, identified in Figure 2.1, were selected through a weighted random assignment procedure; hence, the overall sample is representative of all LEAP-eligible teens statewide.[2] The counties were divided into two tiers, with Tier 1 being studied more intensively.[3] The seven Tier 1 counties are

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[2] The 12 counties were randomly selected from all Ohio counties that had at least 40 potentially eligible teens at the beginning of program operations in 1989. Each had a probability of selection that was proportional to its estimated eligible LEAP caseload. Since 12 counties were selected on this basis, counties with more than one-twelfth of the LEAP caseload across all counties that had at least 40 cases had a 100 percent likelihood of selection (Cuyahoga, Franklin, and Hamilton counties).

[3] The Tier 1 counties agreed to assign 20 percent of eligible teens to the control group (as opposed to 5 percent in the Tier 2 counties), and to facilitate MDRC's field research and case file data collection.

Figure 2.1

Counties in the LEAP Evaluation

Tier 1 Counties
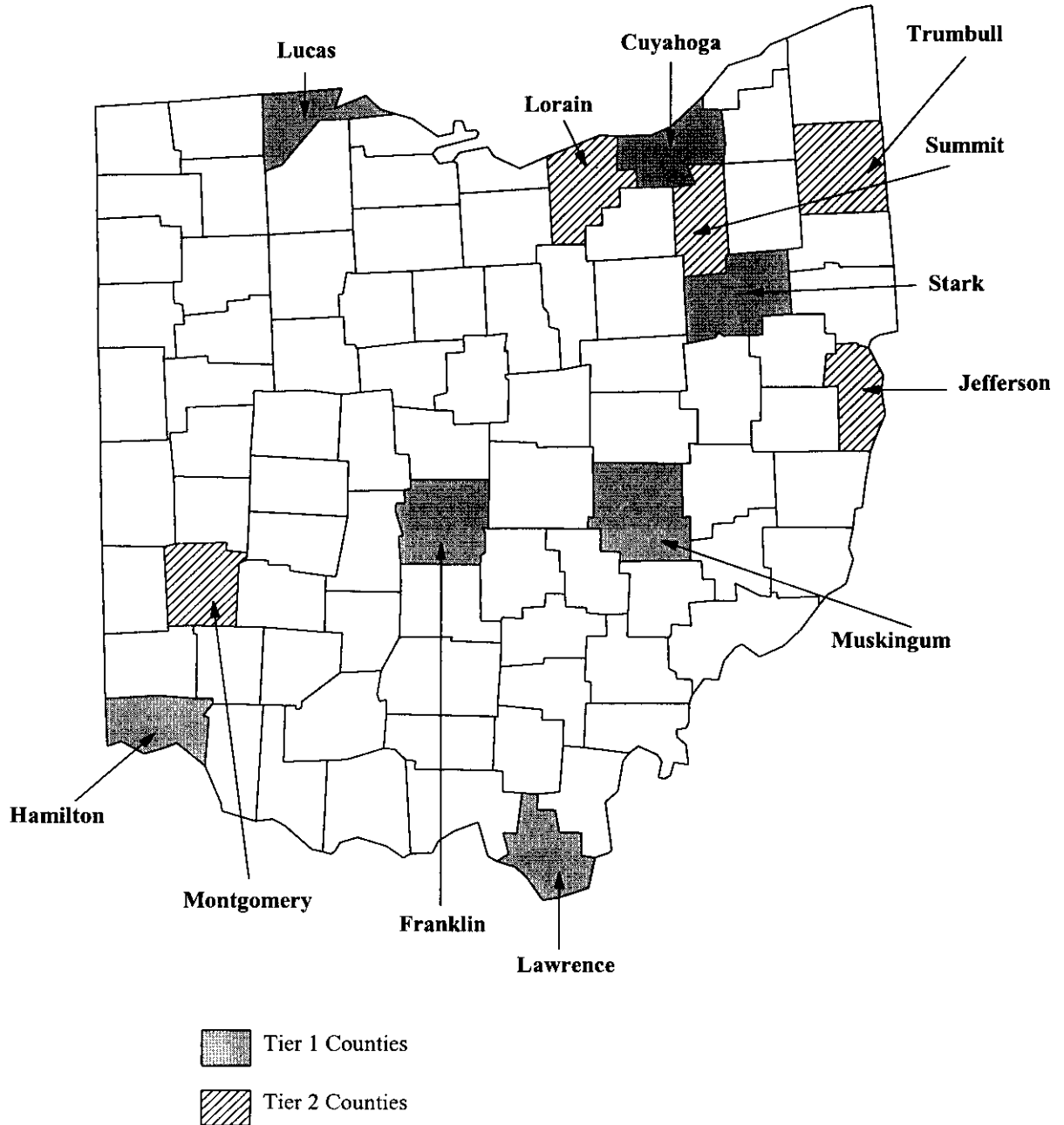
Tier 2 Counties

Cuyahoga (Cleveland), Franklin (Columbus), Hamilton (Cincinnati), Lawrence, Lucas (Toledo), Muskingum, and Stark; the Tier 2 counties are Jefferson, Lorain, Montgomery (Dayton), Summit (Akron), and Trumbull. The counties differed in their local economic conditions and population characteristics (see Table 2.1), and cover both urban and rural areas. As noted above, this final report presents program impacts on earnings and welfare receipt in all 12 counties.

The evaluation's analysis of program operations examined LEAP's institutional structure, implementation issues, and the application of its incentive structure. The findings of this analysis, which was based mainly on field research conducted in all 12 research counties and the three-year survey conducted in the seven Tier 1 counties, were presented in the four previous LEAP reports. The central issue of bonus and sanction rates is revisited in Chapter 3, as noted above.

The analysis of the program's impacts on earnings and welfare receipt — the primary focus of this report — was based on a comparison of the experience of two groups of teens in the 12 research counties. As discussed in Chapter 1, all teens in these counties who were determined to be eligible for LEAP between July 1989 (the beginning of program operations) and September 1991 were randomly assigned to either a program group, which was eligible (and mandatory) for all aspects of LEAP, or a control group, which was not. Overall, in the 12 counties, 9,685 teens were randomly assigned, of whom 4,151 constitute the research sample for this report (as discussed above). Because eligible teens were placed in the program and control groups at random, the members of the two groups are similar in all measurable and unmeasurable characteristics except for the fact that one group received the LEAP treatment and the other did not.[4] Thus, the control group provides the best evidence on what would have happened to the teens in the program group if LEAP did not exist.[5] Differences in the subsequent behavior of teens in the two groups can confidently be attributed to LEAP's package of bonuses, sanctions, case management, and support services.[6] It is these differences that are referred to as the program's effects or "impacts." Since members of the control group were eligible for LEAP-

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[4]Appendix Table A.1 presents selected characteristics of the program group and the control group.

[5]The control group did not have access to LEAP's incentives, case management, and transportation assistance until January 1, 1994. At that point, control group members were admitted to the program if they were eligible and requested to participate. A control group member who entered LEAP could receive bonus payments, but could not be sanctioned. Members of the control group, of course, were free to attend school, but their school attendance was not monitored by LEAP staff, and their welfare grants were not adjusted based on their attendance. Also, until January 1, 1994, control group teens were not eligible for allowance payments or case management from Ohio's JOBS program, the employment and training program for adult AFDC recipients. (These $50 monthly allowance payments were intended to cover expenses related to JOBS participation.)

[6]A random assignment research design eliminates many, but not all, potential evaluation problems. In particular, it captures only impacts that occur *after* the time of random assignment. Some potentially eligible LEAP teens were sanctioned when they did not show up for the initial assessment meeting, which verified their program eligibility (see Bloom et al., 1993). Some of these teens were never randomly assigned (i.e., never became part of the study), and others were assigned after being sanctioned one or more times. Any impact these sanctions had on teens' behavior was not captured by the study. In addition, many problems that affect other research designs — such as the potential bias introduced by missing data or by differential attrition by individuals in research groups that are being compared — can also affect a random assignment design.

Table 2.1

Selected Demographic Characteristics of Ohio Counties in the LEAP Evaluation

County	Largest City	County Population (1994)	County Population Rank[a] (1994)	AFDC Recipients[b] (1994)	Percent of Total State AFDC Recipients (1994)	Births to Teenagers/ Total Births (%) (1993)	Poverty Rate (1992)	Unemployment Rate (1993)	Percent Rural (1990)	Percent Under 18 Who Are Nonwhite (1990)
Tier 1 counties										
Cuyahoga	Cleveland	1,403,239	1	134,321	20.0	13.4	18.9	6.8	0.2	35.1
Franklin	Columbus	1,005,161	2	70,357	10.5	12.8	17.2	4.6	3.1	24.1
Hamilton	Cincinnati	867,728	3	60,363	9.0	14.9	15.1	5.5	3.2	28.5
Lawrence	Ironton	63,870	39	6,893	1.0	15.9	25.5	8.2	45.4	3.2
Lucas	Toledo	457,635	6	42,610	6.4	16.3	18.6	6.9	5.2	23.8
Muskingum	Zanesville	83,566	29	5,051	0.8	18.4	16.5	8.6	67.4	6.1
Stark	Canton	374,612	7	20,576	3.1	12.4	12.8	6.9	22.0	10.7
Tier 2 counties										
Jefferson	Steubenville	78,737	32	6,898	1.0	16.5	19.5	9.1	44.0	8.2
Lorain	Lorain	279,405	9	15,930	2.4	15.3	14.4	6.3	13.6	14.6
Montgomery	Dayton	572,140	4	36,541	5.5	12.9	15.3	5.4	5.0	24.7
Summit	Akron	527,920	5	33,724	5.0	12.4	13.8	6.0	5.7	18.0
Trumbull	Warren	228,829	11	14,024	2.1	12.6	14.6	8.2	27.9	10.0
Totals for the 12 counties		5,942,842	--	447,288	66.7	--	--	--	--	--
Weighted average for the 12 counties[c]		--	--			13.7	16.5	6.1	7.5	24.3
Totals for the Tier 1 counties		4,255,811	--	340,171	50.7	--	--	--	--	--
Weighted average for the Tier 1 counties[d]		--	--			13.9	17.2	6.1	6.0	26.7
Ohio totals		11,102,198	--	670,378	100.0	13.6	15.4	6.5	25.9	15.2

SOURCES: Children's Defense Fund-Ohio and Junior Leagues of Ohio, 1995 (unemployment rates based on Ohio Bureau of Employment Services statistics); Council for Economic Opportunities in Greater Cleveland, 1993 (largest city, county population, county population rank, poverty rate); Ohio Department of Health (births to teens, total births); Ohio Department of Human Services (AFDC recipients); U.S. Bureau of the Census, 1990 (percent rural, percent under 18 who are nonwhite).

NOTES: [a]There are 88 counties in Ohio.

[b]AFDC recipients is a total of ADC-Regular (i.e., single-parent families), ADC-Unemployed (i.e., two-parent families in which the principal wage-earner is unemployed), and ADC-Incapacitated (approximately 4.2 percent of the total).

[c]Weighted by county population as a percentage of the 12-county total population.

[d]Weighted by county population as a percentage of the 7-county total population.

funded child care[7] and for the GRADS and GOALS programs (discussed in Chapter 1), this evaluation, strictly speaking, measures the net effect of adding bonuses and sanctions and case management (including transportation assistance) to a condition that includes other forms of school-based assistance for pregnant and parenting teens.

Results that are statistically significant are indicated by asterisks in the impact tables in this report. A "statistically significant" result is one that has less than a 10 percent probability of having occurred simply by chance and not as a result of the program.

III.   Samples and Data Sources

A.   The Samples Used in This Report

A total of 9,685 teens were randomly assigned to the LEAP evaluation — 84 percent to the program group and 16 percent to the control group.[8] In order to increase the extent to which the sample's experience reflects the effects of a "steady-state" LEAP program, this sample was reduced in two steps (see Figure 2.2). First, 2,003 older teens who experienced LEAP only during its start-up phase — when the program operated under rules and procedures different from those that were eventually put in place — were excluded from most of the analysis.[9] This reduced the sample to 7,682 teens.

Second, even though some administrative records data on earnings and welfare receipt — the major data sources for this report — are available for all 7,682 teens, the amount of follow-up is limited for part of this sample, as is discussed below. However, extensive follow-up data are available for a late cohort of 4,151 teens (in this report, referred to as the "research sample"), randomly assigned during the second (and last) year of random assignment (i.e., August 20, 1990, through September 1991). Also, with this research sample, the impact estimates are more representative of a steady-state LEAP program: Some of the initial problems with the implementation of bonuses and sanctions were resolved, and teens were subject to LEAP's mandate as

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[7]Members of the control group were eligible to receive child care assistance to the same extent as members of the program group because all AFDC recipients who attended school or were in a training program were entitled to assistance from JOBS (LEAP is a component of JOBS in Ohio).

[8]The ratio reflects an effort to balance two objectives: (1) to minimize the number of teens who would not receive LEAP services and (2) to obtain a control group of sufficient size to allow for statistically reliable analysis. In the seven Tier 1 counties, which were studied more intensively, the program/control ratio was 80:20; in the five Tier 2 counties, the program/control ratio was 19:1.

[9]Teens born prior to September 1, 1971 ("older" teens), were dropped from the analysis because, on September 1, 1990, LEAP raised the age at which teens were no longer eligible for LEAP from 19 to 20. Therefore, teens born prior to September 1, 1971, would have aged out of LEAP on their 19th birthday and then become subject to the LEAP mandate again in September 1990. These teens received a strange LEAP treatment that is not representative of the program as it subsequently operated. In addition, these older teens were exposed to LEAP only during its start-up phase, when the program was experiencing some operational problems (see Bloom et al., 1993).

Figure 2.2

Derivation of the Samples Used in This LEAP Report

9,685 teens were randomly assigned between July 1989 and September 1991, in the 12 counties

2,003 "older" teens were excluded

Full Sample
7,682 teens randomly assigned in the 12 counties

Early Cohort
3,531 teens randomly assigned between July 1989 and mid-August 1990

Research Sample
4,151 teens randomly assigned between mid-August 1990 and September 1991

2,967 teens in the seven Tier 1 counties

1,184 teens in the five Tier 2 counties

Three-Year Survey Fielded
1,178 teens, including all control group members and a random sample of the program group (ratio is 1:1)

265 survey nonrespondents were excluded

Three-Year Survey Sample
913 teens (survey responders) in the seven Tier 1 counties

NOTE: The research sample is used in Chapters 4, 5, and 6. The three-year survey sample is used in Chapters 3 and 4.

soon as they became eligible, as would be the case in an ongoing program.[10] The research sample of 4,151 teens is used throughout this report as the primary sample. It consists of 3,479 teens in the program group and 672 teens in the control group (see Table 2.2).

The second sample consists of 913 responders to the three-year survey conducted in the seven Tier 1 counties, the major data source for the previous report (Long et al., 1996). This survey also was limited to teens randomly assigned during the last year of random assignment (August 20, 1990, through September 1991).

The third sample used in this report consists of 1,188 teens in the seven Tier 1 counties who responded to a survey administered (in their case) at least 12 months after random assignment. This sample includes older teens and teens who entered the study prior to August 20, 1990, and is not entirely comparable to the research sample used in this report.

The fourth sample, the three-county LEAP case file sample, was studied in the second report on the LEAP evaluation (Bloom et al., 1993) and includes older teens. Finally, this report draws on information from teens who participated in focus groups regarding their experiences in LEAP and school (as reported on in Bloom et al., 1993).

B. Administrative Records Data

Analyses of impacts on earnings and welfare receipt presented in this report are based on administrative records data obtained from the State of Ohio. These data offer the advantage of having relatively low costs per data point, and therefore can be analyzed for larger samples and longer follow-up periods than are often feasible with surveys. They also may be more precise because they are not subject to recall errors, as self-reported survey data may be. This allows the estimation of longer-term program impacts on outcomes that lie at the end of the impact chain — in this case, employment, earnings, and longer-term AFDC receipt. The larger samples made possible by using administrative records result in more stable impact findings, with smaller margins of error.

The use of administrative records for the impact analysis has some analytical disadvantages. Owing to the nature of these records, it is possible that outcomes for some people are not measured correctly, mostly because of data limitations and errors in matching LEAP records against administrative records. The most common of such errors occurs when a sample member leaves the State of Ohio or works in an adjacent state while still living in Ohio. In that case, her earnings are not captured by Ohio's administrative data. This then leads to the implicit assumption that the sample member has no earnings and is not receiving AFDC, even though she might

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[10]The sample randomly assigned during the second year of operations excludes some "on-board" teens — teens who had already met the LEAP eligibility criteria when the program began and thus entered LEAP under circumstances that would not exist in an ongoing program. For example, some already had two- or three-year-old children and had been on AFDC for years, whereas, in an ongoing program, teens on AFDC would become subject to LEAP's mandate as soon as they were pregnant with their first child.

Table 2.2

Samples and Data Sources Used In This LEAP Report

Sample/ Data Source	Areas in Which Data Were Collected	Composition of Sample for Whom Data Were Collected[a]	Number of Teens in Sample	Period Covered by Data
Baseline data	All 12 Tier 1 and Tier 2 counties	All program and control group members, excluding "older teens"	Research sample 4,151 Total 3,479 Program group 672 Control group	Data reported as of random assignment
Administrative records				
Unemployment Insurance earnings records	All 12 Tier 1 and Tier 2 counties	All program and control group members, excluding "older teens"	Research sample 4,151 Total 3,479 Program group 672 Control group	14 calendar quarters covering quarter 3 after random assignment through quarter 16 for the research sample randomly assigned from August 20, 1990, through September 1991
AFDC payment records	All 12 Tier 1 and Tier 2 counties	All program and control group members, excluding "older teens"	Research sample 4,151 Total 3,479 Program group 672 Control group	8 calendar quarters covering quarter 9 after random assignment through quarter 16 for the research sample randomly assigned from August 20, 1990, through September 1991
Survey samples: telephone and in-person interviews				
First survey[b]	All 7 Tier 1 counties	All control group members and 25% of program group members (chosen randomly). Survey interviews completed with 74% (2,089) of these teens.	Subsample fielded: 2,808 Total 1,412 Program group 1,396 Control group Respondents: 2,089 Total 1,051 Program group 1,038 Control group Respondents with 12 months of follow-up data: 1,188 Total 605 Program group 583 Control group	From random assignment to survey administration. Survey administered 4 to 21 months after random assignment.

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(continued)

Table 2.2 (continued)

Sample/ Data Source	Areas in Which Data Were Collected	Composition of Sample for Whom Data Were Collected[a]	Number of Teens in Sample	Period Covered by Data
Three-year survey[c]	All 7 Tier 1 counties	All control group members and 25% of program group members who were randomly assigned between mid-August 1990 and September 1991. Survey interviews completed with 78% (913) of these teens.	Sample fielded: 1,178 Total 584 Program group 594 Control group Respondents: 913 Total 446 Program group 467 Control group	From random assignment to survey administration. Survey administered from February to July 1994—29 to 46 months after sample members' random assignment. Average of 37 months of follow-up from random assignment.
LEAP case file sample[d]	Cuyahoga, Franklin, and Hamilton counties	Random subsample of teens randomly assigned between July 1989 and November 1990	263 Program group	18 months after random assignment
Focus group data[e]	Cuyahoga, Franklin, and Hamilton counties	Members of LEAP case file subsample who were active in LEAP in April 1992, plus additional teens in Cuyahoga County who had not complied with LEAP rules	Invited: 250 Program group Attended: 55 Program group	Discussed experiences in LEAP and school through October 1992

NOTES: Random assignment for the research sample covered the period from August 20, 1990, through September 1991.

[a]Unless otherwise noted, teens born prior to September 1, 1971, were excluded from all samples because they received a limited treatment of LEAP during the initial start-up phase of the program.

[b]Results of the first survey were reported in Bloom et al., 1993. The 1993 report included teens born prior to September 1, 1971.

[c]Results of the three-year survey were reported in Long et al., 1996.

[d]The three-county case file sample was reported on in Bloom et al., 1993, and Long et al., 1996. The 1993 report included teens born prior to September 1, 1971.

[e]Focus group data were reported on in Bloom et al., 1993.

have either in a different state. Similar errors occur when sample members' identifiers (e.g., AFDC case numbers and Social Security numbers) are recorded incorrectly, either in the LEAP data or in the administrative data source against which LEAP records are matched. Fortunately, the random assignment research design protects the findings against matching errors, provided that the probability of such errors is the same in both research groups.[11] Other data quality issues are discussed in the following sections, which present the different administrative data sources used in greater detail.

1. **Unemployment Insurance earnings records.** Employers in Ohio are required to report the earnings of their employees to the state's Unemployment Insurance (UI) system. MDRC obtained these records to measure employment and earnings, by calendar quarter (January–March, April–June, etc.) for all 4,151 program group and control group members in the research sample. Data were available for the period covering April 1991 through December 1995. For the research sample, these UI data cover quarters 3 through 18 of their post-random assignment follow-up period, with quarter 1 being the calendar quarter in which the teen was randomly assigned. Data were not available for the first two quarters.[12] However, the follow-up period for this report was ended at quarter 16 (four years after random assignment) because impacts on earnings and AFDC receipt in later quarters became hard to interpret as more and more LEAP control group members were required to participate in the JOBS program.

An important caveat specific to the use of UI data for estimating employment and earnings impacts is the fact that these data do not cover all sources of employment. Certain employers do not have to report earnings to the UI system. Also, earnings from self-employment would not be covered, even if such employment was reported to the Internal Revenue Service and subject to income tax. Finally, any "off-the-books" employment is not covered by or reported to the UI system, and therefore is not included in the impact analysis presented in this report. Most of these sources of uncovered employment *would* have been captured by a survey, resulting in different outcome levels and possibly different impact estimates. Thus, the reader should interpret findings pertaining to employment outcomes based on records data as being limited to *covered* employment, even though this caveat is not repeated throughout the report.

2. **AFDC payment records.** Data on welfare receipt and welfare payment levels were obtained from the state's automated welfare payment system. Although random assignment began in July 1989, the new Client Registry Information System–Enhanced (CRIS-E) system, which can identify whether a teen in the study is on a specific welfare case, was not fully implemented until July 1992. Since, after random assignment, some teens left the welfare case

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[11]When an evaluation uses both a survey and administrative data, it is possible to assess the quality of the matching procedure by comparing outcomes for the same period on both data sources. Such a comparison was done for the LEAP evaluation. Its results are presented in Appendix B. Generally, the quality of the administrative data was found to be very good, and there was no statistically significant difference in the match rate for program group members and control group members.

[12]During those early quarters, employment rates were expected to be low, and program impacts were not expected to manifest themselves this early in the follow-up period.

recorded on the baseline form completed during random assignment (to start their own case or to live with another family member), it would be inaccurate to report welfare impacts based on the welfare case reported at random assignment. The welfare data collected for this report cover the period from August 1992 through March 1996, when CRIS-E could identify the presence (or absence) of the teen on the welfare case (though some data for the latter part of this period were not used in the analyses). Thus, relative to the point of random assignment, AFDC data were available for the research sample covering quarters 9 through 18 of the post-random assignment follow-up period. As mentioned above, no impacts are presented for quarters 17 and 18 because, during those quarters, the LEAP impacts for program group members became confounded with effects of the JOBS program for control group members.

The fact that reliable AFDC data were not available for the first two years of follow-up means that AFDC impacts presented in this report may not reflect the full extent of LEAP's effects on welfare receipt. AFDC impacts presented here are predominantly for the period after teens were in LEAP. Thus, they reflect longer-term program effects, after most teens were no longer receiving bonuses or sanctions. In the benefit-cost analysis, presented in Chapter 6, assumptions will be made to properly account for the missing years of AFDC data.

C. **The One-Year and Three-Year Surveys**

In order to have information that covered the full chain of LEAP's potential impacts, from education to employment, welfare receipt, family structure, and other outcomes, the LEAP evaluation included two surveys. The first survey collected school-related information on a large subset of program and control group members 4 to 21 months after random assignment. This report reviews information about the first 12 months in the study for the 1,188 teens for whom there were such data (more detail is provided in Bloom et al., 1993).

Outcomes measured in the three-year survey were the main focus of the previous report (Long et al., 1996). Because of budget considerations, the survey could not cover all teens randomly assigned. Also, as noted above, it was desirable to provide information on the likely effects of an ongoing LEAP program. Thus, the survey focused on the seven Tier 1 counties and was targeted at 2,967 teens in a late cohort (i.e., who were randomly assigned between mid-August 1990 and September 1991, excluding the older teens, who received an atypical treatment; see Figure 2.2). Within this group, interviewers sought (via telephone, followed by in-person contact) to reach all members of the control group and a random subset of one-fourth of the program group, for a total of 1,178 teens.

The survey was conducted over a five-month period, from February to July 1994. As shown in Table 2.2, interviewers were able to complete 913 interviews, for a completion rate of almost 78 percent overall (76.4 percent for the program group and 78.6 percent for the control group). The length of follow-up (i.e., the time between random assignment and administration of the survey) ranged from just under two and a half years to over three and a half years, for an

average of 37 months (referred to as three years of follow-up). The average age of the LEAP teens at the time of survey administration was only 20.6 years, and more than 30 percent of teens were still under the age of 20, and hence potentially still eligible for LEAP.[13] Note that the three-year survey sample, which is a subset of the research sample featured in this report, included teens in the same late cohort, thus allowing earlier findings from the three-year survey to be compared and linked to findings from administrative records.

D. Grant Adjustment Data

The assessment of LEAP's incentives (bonuses and sanctions) during the first 18 months of follow-up, which is reviewed in Chapter 3, used LEAP case files for 263 randomly selected teens in the program group.[14] After the first 18 months, grant adjustment data became available from administrative sources for all members of the program group. The average number of bonuses and sanctions received during the later part of the follow-up period was estimated only for the research sample (i.e., sample members randomly assigned from August 20, 1990, through the end of random assignment in September 1991).

E. Cost Data

The cost analysis, presented in Chapter 6, uses fiscal data primarily from the Ohio Department of Human Services (ODHS) and LEAP caseload estimates from MDRC's random assignment numbers. It is based on the same research sample as is used for most other analyses presented in this report. The LEAP expenditure data were taken from monthly reconciliation reports for the 12 counties, which were obtained from the County Finance Section of ODHS and covered calendar year 1991. MDRC also obtained cost data related to services teens received from the Ohio Department of Education, the state and county child day care departments, and several other sources. Chapter 6 provides a description of these data and explains how they were used in the cost analysis.

IV. Demographic Characteristics of Teens in the Research Sample

Data on the characteristics of all LEAP sample members were gathered on a one-page form — the Teen Parent Information Sheet (TPIS) — completed by LEAP staff at the time teens were randomly assigned. Table 2.3 displays selected characteristics of teens (combined program and control groups) in the full 4,151-person research sample, as well as the two key subgroups tracked throughout this report: teens who were already enrolled in high school or a GED program at the point they were randomly assigned (often referred to in this report as "initially enrolled"

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[13]Those under the age of 20 would not have been eligible if they had graduated from high school, received a GED, left AFDC, or moved from Ohio.

[14]These teens were randomly assigned between July 1989 and November 1990 and were selected from the three research counties with the largest number of teens, namely Cuyahoga (Cleveland), Franklin (Columbus), and Hamilton (Cincinnati).

Table 2.3

**Selected Characteristics of LEAP Teens at the Time of Random Assignment,
by Initial School Enrollment Status**

Characteristic at Random Assignment	Full Research Sample	Initial School Enrollment Status[a]	
		Sample Members Enrolled in High School or in a GED Program at Random Assignment	Sample Members Not Enrolled in High School or in a GED Program at Random Assignment
Age in years (%)			
15 or less	12.1	18.6	4.3
16	16.6	22.2	9.9
17	25.3	27.5	22.6
18	35.0	26.8	44.8
19	11.1	4.9	18.5
Average age in years	17.60	17.19	18.11
Female (%)	98.4	98.8	97.9
Schooling status (%)			
Enrolled in high school, middle school, or a GED program	54.7	100.0	n/a
Out of school	45.3	n/a	100.0
Out of school for 2 years or more (%)	10.7	n/a	23.6
Average number of months since last attended school (nonenrolled teens only)	7.45	n/a	16.46
Average highest grade completed	9.56	9.64	9.46
AFDC case status (%)			
Head of own AFDC case	57.8	43.2	75.5
On parent's AFDC case	35.4	49.5	18.4
On another's AFDC case	6.8	7.3	6.1
Ethnicity (%)			
Black	56.7	68.6	42.3
White	39.1	28.0	52.6
Hispanic	2.9	2.2	3.8
Other	0.8	0.7	0.8
Marital status (%)			
Single, never married	92.4	96.4	87.5
Currently married	5.0	2.9	7.6
Divorced, separated, or widowed	2.6	0.7	5.0
Number of children (%)			
0	20.9	25.5	15.3
1	70.5	70.2	70.8
2 or more	8.6	4.3	13.9

(continued)

Table 2.3 (continued)

Characteristic at Random Assignment	Full Research Sample	Initial School Enrollment Status[a]	
		Sample Members Enrolled in High School or in a GED Program at Random Assignment	Sample Members Not Enrolled in High School or in a GED Program at Random Assignment
Average number of children	0.89	0.79	1.01
Average age of youngest child in months[b]	8.10	7.35	8.87
Average age of oldest child in months[b]	10.18	8.37	12.07
Received any earnings during the prior 12 months (%)	16.3	16.5	16.0
County (%)			
Tier 1			
Cuyahoga	27.8	28.0	27.7
Franklin	14.9	13.8	16.2
Hamilton	13.9	13.6	14.3
Lawrence	0.9	1.0	0.9
Lucas	7.7	8.9	6.1
Muskingum	1.6	1.9	1.3
Stark	4.7	4.2	5.2
Tier 2			
Jefferson	1.7	1.2	2.2
Lorain	7.4	6.9	7.9
Montgomery	8.4	7.8	9.3
Summit	7.0	8.7	5.0
Trumbull	4.0	4.1	3.9
Sample size	4,151	2,272	1,879

SOURCE: MDRC calculations using data from Teen Parent Information Sheets.

NOTES: N/a means that the item is not applicable.

[a]"Enrollment" is defined as attending high school, middle school, or GED classes at the time of random assignment.

[b]Excludes teens who reported having no children at the time of random assignment or for whom birthdate information for their children was incomplete.

teens) and those who were not enrolled at the time of random assignment (often referred to in this report as "not initially enrolled teens" or "dropouts"). Appendix Table A.2 does the same for teens in the 913-person three-year survey sample (see Figure 2.2).

As shown in Table 2.3, 60 percent of teens in the research sample entered LEAP when they were 17 or 18 years old, while almost 29 percent entered the sample when they were 16 or younger, and 11 percent when they were 19. The vast majority entered LEAP with only one child or when they were pregnant with their first child. (Teens became eligible for the program when they were pregnant with their first child if they were receiving AFDC at that point.[15]) However, many of these teens may have had additional children after entering LEAP.

Almost all of the research sample members were single when they entered LEAP: 92 percent of the sample had never been married, while 3 percent were divorced, separated, or widowed. The remaining 5 percent were married at the time they entered the study. Nearly 60 percent of the sample members headed their own AFDC case at the time of random assignment. Another 35 percent were on a parent's case. Almost all teens identified themselves as African-American (57 percent) or white (39 percent), and only 3 percent were Hispanic.

As for the educational status of these teens, nearly half of the sample members (45 percent) were out of school when they entered LEAP. The average sample member had completed about half of the 10th grade by the time of random assignment.

When initially enrolled and not initially enrolled subgroups are compared, important differences emerge. Dropouts, in contrast to those initially enrolled in school, had more children, had a lower level of grade completion, and were less likely to have had earnings in the year prior to random assignment. They also were not recent dropouts at the time they entered LEAP: Rather, on average, they had been out of school for over 16 months, and nearly a quarter of them had left school more than two years earlier.

Dropouts were, on average, nearly a year older than initially enrolled teens when they entered LEAP (18.1 years vs. 17.2 years), and more than 60 percent were 18 or 19 years old (as opposed to only about 32 percent of initially enrolled teens). Dropouts had more children, on average, than initially enrolled teens, averaging 1.0 children at random assignment vs. 0.8 for the initially enrolled teens (some teens in both subgroups were pregnant with their first child). Almost 14 percent of the dropouts had two or more children at random assignment, whereas only about 4 percent of initially enrolled teens had two children or more.

Dropouts had a lower level of grade completion, and a lower percentage of them had earnings in the year prior to entering LEAP, than did initially enrolled teens. Upon entrance into

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[15]In September 1990, LEAP eligibility was extended to teens who were pregnant with their first child. The teens in the research sample with two or more children at the time of random assignment were eligible because they started receiving AFDC at some point after their second child was born, or were not identified as LEAP-eligible in a timely manner because of administrative delays.

the LEAP program, the average dropout had completed 9.46 grades, while the average in-school teen had completed 9.64 grades. Sixteen (16.0) percent of the dropouts received any earnings in the 12 months prior to entering LEAP, compared with 16.5 percent of the initially enrolled teens. While dropouts were no more likely than initially enrolled teens to have earned money in the prior year, they were much more likely to head their own AFDC case. Seventy-six percent were the head of their own case at random assignment, compared with only 43 percent of the initially enrolled teens.

There also were important racial differences between the two subgroups, with a dispro-portionate number of the out-of-school teens being white. While whites made up about 40 percent of the research sample, they made up 53 percent of the dropouts. Of the initially enrolled teens, 69 percent were African-American, and 28 percent were white.

Chapter 3

Program Implementation, Impacts on Education Outcomes, and Other Impacts from Survey Data

I.   Introduction

This chapter reviews, summarizes, and updates findings presented in the 1993 and 1996 evaluation reports. These earlier reports concentrated on LEAP's implementation (including the administration of bonuses and sanctions) and its impacts on education outcomes. As discussed in Chapter 2, the estimates presented in this chapter are based on several data sources: case files for 263 members of the program group in Cuyahoga, Franklin, and Hamilton counties; a survey of 1,188 teens in the seven Tier 1 counties, covering their first 12 months in the study; and a three-year survey of 913 teens in the same seven counties, and several focus groups conducted with some program group members.[1]

This review is necessary because longer-term program impacts on employment outcomes and welfare receipt are more informative and easier to interpret if they are placed in the context of a careful analysis of the program's implementation and early outcomes. The same is true for results from the benefit-cost study, another important component of this report. Nevertheless, the chapter is necessarily selective and cannot do justice to the complexity and sophistication of the original analyses. Interested readers who are new to the LEAP evaluation are encouraged to study the applicable sections of Bloom et al. (1993) and Long et al. (1996), referred to in the remainder of this chapter as the 1993 and 1996 reports, respectively.

The outline of this chapter is as follows: Section II summarizes and updates findings presented in previous reports about the administration of bonuses and sanctions. Section III discusses impacts on school enrollment and school attendance, using the 12-month follow-up survey, and then presents impacts on high school graduation and GED receipt, using data collected with the three-year survey. Section IV concludes this chapter with a presentation of other outcomes measured in the three-year survey, including fertility outcomes.

II.   Implementing LEAP

A. The Incentive Structure

As discussed in Chapter 1 (and summarized in Table 1.1), the LEAP program includes an *enrollment* bonus of $62, paid when a teen first verifies that she is enrolled in high school or in a

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[1]As discussed in Chapter 2, the Tier 1 counties are Cuyahoga, Franklin, Hamilton, Lawrence, Lucas, Muskingum, and Stark counties.

GED program, and at the beginning of subsequent academic years as long as the teen remains enrolled. LEAP also includes a $62 *attendance* bonus, earned for every month in which a teen meets the program's school attendance requirement — for high school students, two or fewer unexcused absences and four or fewer total absences in a month.[2]

Teens can also receive three types of sanctions, each of which reduces the family's monthly AFDC grant by $62. (However, teens never receive more than one LEAP sanction in any given month.) The first is an *assessment* sanction, administered when a teen fails to attend a scheduled assessment meeting (the event that commences LEAP participation) or a scheduled reassessment meeting. These reassessment meetings occur prior to the start of subsequent school years. Assessment sanctions remain in effect (and monthly grants continue to be reduced) until the teen appears for the meeting.[3] A second type of sanction used is an *enrollment* sanction, which reduces a teen's grant if she fails to enroll in a qualifying school or education program, or if she drops out of school. The sanction is to remain in place until proof of enrollment is provided or until the teen becomes exempt from or ineligible for LEAP. Finally, a third type of sanction, the *attendance* sanction, is requested for each month in which an enrolled teen does not meet LEAP's school attendance requirement and does not have an acceptable reason for failing to do so.[4]

B. Actual Implementation of Bonuses and Sanctions

The implementation of these bonus and sanction rules during the study period varied across the counties and across time, with the program's becoming stricter and implementation becoming more consistent in later years. Initially, actual bonus and sanction rates were lower than originally intended, even though bonuses and sanctions were requested by LEAP case managers for most program group members.[5] To illustrate this, Figure 3.1 describes the experiences of 100 typical LEAP teens in three of the 12 research counties (Cuyahoga, Franklin, and Hamilton) during their first 18 months of program eligibility. As shown in the figure, 93 of the teens qualified for at least one bonus or sanction, with 75 earning at least one bonus and 56 qualifying for at least one sanc-

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[2]Under the 1996 changes to LEAP, bonuses have been added for completing a grade level (except grade 12) and for graduating from high school or receiving a GED. The initial enrollment bonus has been retained but yearly enrollment bonuses have been dropped.

[3]Since these sanctions were first applied prior to random assignment, some control group members received them as well.

[4]Under the 1996 changes, these sanctions have been augmented with new sanctions for teens who are out of compliance for six or more months. The bonus and sanction changes, and other modifications of LEAP's rules, were noted in Chapter 1 and are discussed in greater detail in Chapter 7. During the evaluation period, these changes did not affect the teens in the research sample.

[5]Based on the individual teen's compliance (or noncompliance) with the rules, her LEAP case manager issues a request for a bonus or sanction. This request is carried out by the income maintenance staff, who, in some counties, are also the case managers. The focus in this discussion is on bonus and sanction requests, rather than actual grant adjustments, because these measure intended program actions. Also, given the improvements in the ability of counties to process grant adjustments since the introduction of the CRIS-E computer system (discussed in Chapter 2), the data on requests better describe how LEAP operates under steady-state conditions.

Figure 3.1

Grant Adjustment Requests for 100 Typical LEAP Teens
Within 18 Months of Eligibility Verification (Random Assignment)
in Cuyahoga, Franklin, and Hamilton Counties

No Bonuses or Sanctions
Requested: 7 Teens

Only Sanctions
Requested: 18 Teens

Only Bonuses Requested:
37 Teens

Both Bonuses and Sanctions
Requested: 38 Teens

More Sanctions Than
Bonuses Requested: 18
Teens

More Bonuses Than
Sanctions Requested: 14
Teens

Equal Number of Bonuses
and Sanctions Requested:
6 Teens
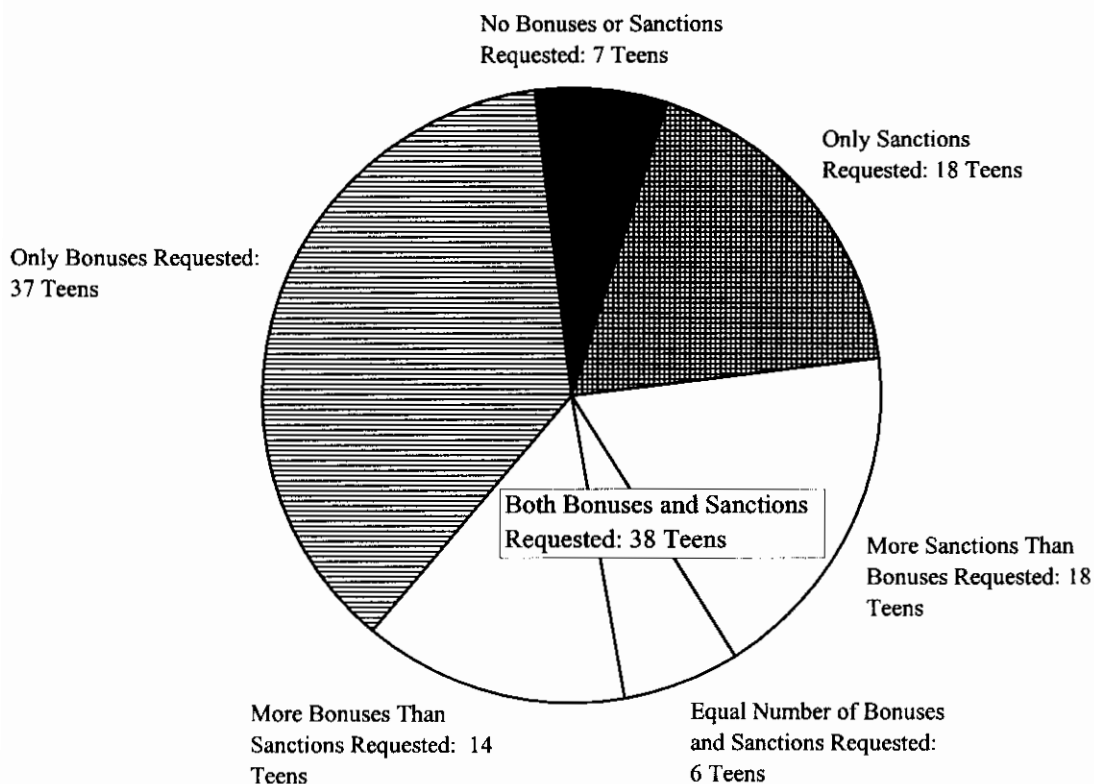
SOURCE: MDRC review of records for the LEAP case file sample.

NOTE: Numbers are weighted averages reflecting the number of teens in the three counties who were randomly assigned through November 1990.

tion.[6] The proportion earning several sanctions or bonuses was also high: 68 earned four or more grant adjustments and 52 were scheduled for six or more (not shown). Staff requested an average of 3.5 bonuses and 2.8 sanctions per teen during the period.

Even though the overall rate of bonus and sanction requests was high, in any particular month most members of the program group did not receive a bonus or a sanction. There are many reasons why this was the case. First, during the follow-up period, many teens became ineligible for the program because they graduated from high school or received a GED, aged out of the program (at age 20), or stopped receiving AFDC altogether. Second, many eligible teens enrolled in school and received the enrollment bonus, but their attendance did not meet the requirements for an attendance bonus, even though their absences were justified, e.g., because of illness, family circumstances, or child care difficulties. In those cases, absences would preclude a bonus but would not lead to a sanction, and a month would go by without either a bonus or a sanction. Third, teens were exempted from LEAP for reasons such as pregnancies (no longer the basis for an exemption, except where there are medical problems). Finally, during the summer months, no bonuses or sanctions were given because schools were closed, limiting the maximum number of bonuses or sanctions a teen could receive in any one calendar year.

Timing was an important limitation to the effectiveness of the bonus and sanction process. Bonuses or sanctions affecting a teen's AFDC grant were not implemented until three months after they were requested by the LEAP case manager (see the 1993 report for details). This means that teens were not rewarded immediately for returning to school and were not sanctioned immediately for dropping out or for failing to attend school regularly. Especially around the summer months, the three-month wait, combined with the policy that teens could not receive attendance bonuses during the summer (unless they were in a GED program), may have produced peculiar and unintended patterns of incentives. For example, a teen would receive attendance bonuses in July and August for having attended regularly in April and May, and would not receive this $62 bonus in September (because school was closed in the summer). This apparent grant reduction occurred just as the teen was about to re-enter school. A September attendance bonus would not be paid to her until December. It is unclear whether and how much this lack of immediacy affects LEAP's success.[7]

The findings presented above were based on case file data covering the first 18 months after teens became eligible for LEAP and were assigned to the program group. However, many teens continued to receive bonuses and sanctions after this date, having remained eligible for the LEAP program. It was possible to use administrative data from the AFDC system and three-year survey data to ascertain which program group members were still eligible for LEAP, and their bonus and

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[6]This is the highest sanction rate MDRC has ever measured in programs for welfare recipients. The next highest sanction rate is 41 percent (45 percent were referred for a sanction), which was estimated for the JOBS program in Grand Rapids, Michigan, based on two years of follow-up rather than 18 months (see Freedman and Friedlander, 1995). As indicated below, the LEAP sanction rate reached 68 percent in Cleveland, based on additional follow-up data.

[7]Enrollment and re-enrollment bonuses were paid immediately (the next month).

Figure 3.2

Program Group Members' Eligibility for LEAP and Rates of Bonuses and Sanctions for Eligible Program Group Members in Months 19-49 After Random Assignment

Month After Random Assignment
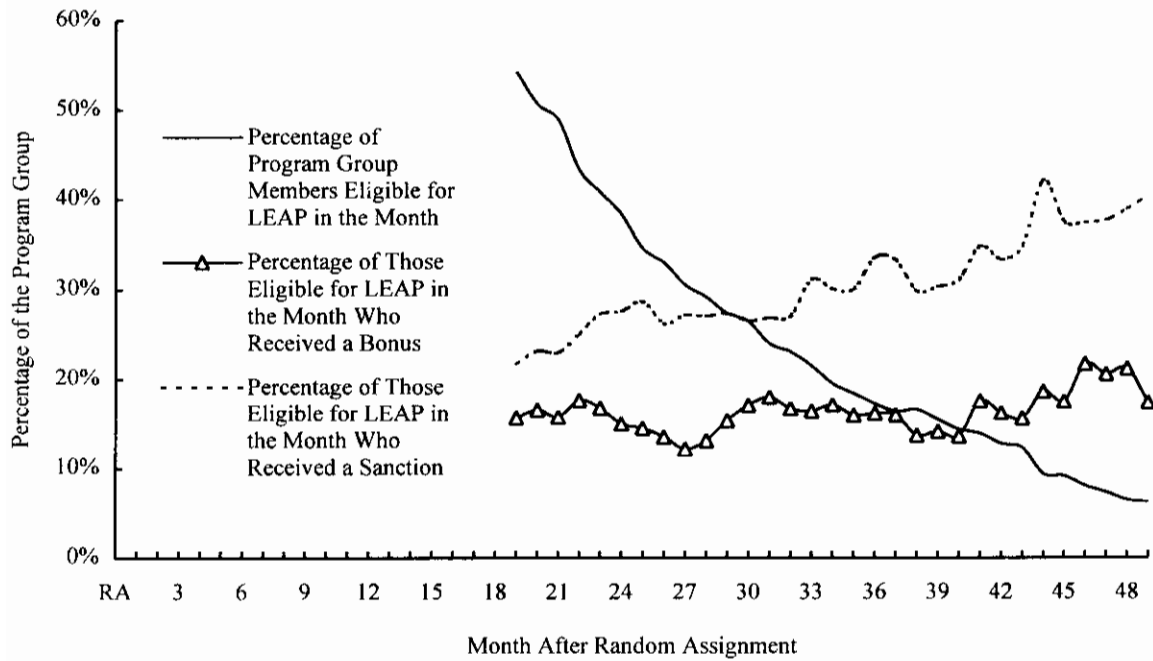
SOURCES: MDRC calculations using data from Teen Parent Information Sheets, the LEAP three-year survey, and Ohio Department of Human Services (ODHS) AFDC records. See Appendix Table C.1 for data corresponding to the figure.

sanction rates, during the years following the 18-month case file follow-up.[8] Results from such analyses are presented in Figure 3.2. The figure shows how the percentage of program group members who were enrolled in LEAP declined over time, as teens aged out of the program, graduated from high school, received a GED, or left welfare.[9] For those who remained in LEAP, the figure shows the monthly percentage receiving a bonus or a sanction.[10]

As expected, sanctions outnumbered bonuses in the later part of the follow-up period. This is the case because teens were sanctioned as long as they were LEAP-eligible (i.e., were under the age of 20 and receiving welfare), had not graduated or received a GED, and were not attending school. Bonuses, on the other hand, ended as soon as the teen graduated or received a GED, even if she had not yet reached the age of 20.

C. Consequences of Sanctions and Bonuses

The overall financial effects of LEAP's AFDC grant adjustments are captured in the impact analysis presented in Chapter 5. The specific effects of multiple sanctions or bonuses on family well-being were studied via a module of questions in the three-year survey.

The first set of questions was administered to the 57 program group members (of the 446 in the survey sample) who reported having been sanctioned at least four times. As shown in Table 3.1, well over half of these teens reported that they had gone without essentials as a result of the grant reductions (an even larger proportion reported having forgone "luxuries"). It is disturbing that children appear to have suffered at least as much as their teenage parents. The item that families did without most often was clothing, followed by food and medicine.

Key coping methods also included borrowing money, postponing payments of bills, and applying for other forms of public and private assistance. More than two-thirds of these teens borrowed money, usually from their parents. Similarly, two-thirds of the teens postponed paying bills, most often utilities bills or their rent. The form of public assistance most frequently sought was additional Food Stamps, which the teens were entitled to receive because of their loss of income (owing to a federal waiver, teens who received bonus payments did not lose Food Stamps). Teens

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[8]Data for months 19 to 25 were not available for all program group members because of the gradual implementation of the CRIS-E computer system. Rates of receipt of bonuses and sanctions were estimated for the subset of program group members for whom CRIS-E data were available in those months (a share of the research sample that increased from 83.4 percent in month 19 to 99.4 percent in month 25).

[9]The LEAP enrollment figures were estimated using data on program group members in the seven-county three-year survey sample (446 teens). These data were used because they provided detailed information on high school graduation and GED receipt, variables that affect LEAP eligibility (those who graduate are no longer eligible for the program).

[10]During the last (fourth) year of follow-up, some control group members also began receiving LEAP bonuses and sanctions, as the embargo on the control group's being in LEAP ended on December 31, 1993. However, by this time, most teens in the control group were no longer eligible for LEAP because they had aged out of the program, graduated from high school, received a GED, or left welfare. Also, the research counties were strongly discouraged from sanctioning members of the control group after the embargo ended. After this date, however, the counties were free to implement bonuses and sanctions for control group members.

Table 3.1

**Ways of Coping with Sanctions, as Reported by LEAP Teens
Who Were Sanctioned More Than Three Times**

Coping Method	Percentage Who Employed the Method	Number Who Employed the Method
Did without essentials	57.9	33 teens
Of those who did without essentials, the household members who were affected:		
LEAP teen	12.1	4
LEAP teen's children	27.3	9
Other household members	3.0	1
LEAP teen and her children	54.5	18
LEAP teen's children and other household members	3.0	1
Of those who did without essentials, the essentials that were sacrificed:		
Food	30.3	10
Clothing	78.8	26
Medicine	15.2	5
Shelter	9.1	3
Borrowed or obtained money from others	68.4	39
Of those who borrowed money, from whom they borrowed:		
Parents	64.1	25
Boyfriend	5.1	2
Other relative	17.9	7
Friend	12.8	5
Applied to other sources for assistance	40.4	23
Of those who applied to other sources, the other sources they applied to:		
Food Stamps	73.9	17
Medicaid	34.8	8
Child support	17.4	4
Food pantry	34.8	8
Soup kitchen	30.4	7
Church	8.7	2
Postponed paying bills	66.7	38
Of those who postponed paying bills, the bills they postponed:		
Rent	36.8	14
Groceries	5.3	2
Utilities	71.1	27
Loans	5.3	2
Medical	7.9	3
Credit card	2.6	1
Engaged in illegal activities	5.3	3

(continued)

Table 3.1 (continued)

Coping Method	Percentage Who Employed the Method	Number Who Employed the Method
Did without luxuries	66.7	38 teens
Of those who did without luxuries, the household members who were affected:		
LEAP teen	10.5	4
LEAP teen's children	39.5	15
Other household members	0.0	0
LEAP teen and her children	47.4	18
LEAP teen, her children, and other household members	2.6	1
Changed their daily routine	57.9	33
Of those who changed their daily routine, the ways in which they changed it:		
Walked rather than using public transportation	72.7	24
Used public transportation rather than driving	6.1	2
Ate at a friend's house	18.2	6
Skipped meals	9.1	3
Stayed home rather than going out	9.1	3
Got a job	7.0	4
Reduced general expenses	21.1	12
Bought less food	5.3	3
Ate less to save more food for the children	3.5	2
Did nothing because it wasn't much money	3.5	2
Had a friend or relative sit with the children rather than paying a sitter	3.5	2
Refrained from buying alcohol or cigarettes	3.5	2
Struggled to buy necessities	5.3	3
Stayed home from school	1.8	1
Struggled to pay rent and other bills	3.5	2
Pawned possessions	1.8	1
Sample size	57	

SOURCE: MDRC calculations using data from the LEAP three-year survey.

NOTES: Because this table is based on a relatively small sample (the 57 survey respondents who reported having been sanctioned more than three times), some of the percentages refer to very few LEAP teens. To make this clear, each item is shown with both the percentage and the absolute number of respondents who cited that coping method as one she employed.

      Percentages may not sum to 100.0 because many respondents employed more than one coping method.

also sought help from food pantries and soup kitchens and, interestingly, from child support (four out of 57 teens reported having sought higher monthly child support payments).

Among the more positive findings, only three teens reported having engaged in illegal activities and four teens reported having gotten a job. Also, while more than half of the teens changed their daily routines, most changes were not too worrisome (an exception is that some teens reported skipping meals).

The second set of questions was directed to the 115 respondents who reported having received at least four bonus payments. It is encouraging that, as shown in Table 3.2, close to 90 percent reported having used the additional money from the bonus payments on essentials, and most often the beneficiaries were their children. Close to a quarter of the teens also reported having been able to buy some luxuries, and again it was their children who usually benefited: The "luxuries" that teens provided to their children included new clothing, outings (e.g., to the movies or to the zoo), and birthday parties.

Teens also were better able to pay their bills and save some money. Utility bills, rent, and payments on personal loans were the most noteworthy financial obligations that teens were able to meet. The additional savings mainly resulted in future spending on the teens' children, with some of the savings having been used to buy household essentials or to cover unexpected emergencies.

III.   Impacts on School Enrollment, High School Graduation, and GED Receipt

Many of this report's analyses are broken down by school enrollment status at random assignment. Findings are presented separately for teens who were enrolled in high school or in a GED program when they entered the study (usually labeled "initially enrolled" in this report, and constituting about 55 percent of the sample) and for teens who were not enrolled in school or in a GED program (labeled "not initially enrolled"). Even though, after random assignment, many teens moved from one status to the other (i.e., either re-entered school or a GED program when they were dropouts, or dropped out after having been initially enrolled), the previous report found that initial school status was an important predictor of program success.

Based on the 12-month follow-up survey, as discussed in the 1993 report, it was found that LEAP had a substantial impact on both school "retention" (among initially enrolled teens) and "return" (among not initially enrolled teens). A later (1996) report analyzed results from a three-year follow-up survey and found that the early school enrollment impacts translated into modest increases in high school graduation and receipt of a GED. The 12-month school enrollment impacts are summarized in Table 3.3 and the three-year findings on grade completion, high

Table 3.2

**Ways of Spending Bonus Payments, as Reported by LEAP Teens
Who Earned More Than Three Bonuses**

Spending Method	Percentage Who Employed the Method	Number Who Employed the Method
Spent the bonus on essentials	87.8	101
Of those who spent the bonus on essentials,		
the household members who were affected:		
LEAP teen	7.9	8
LEAP teen's children	46.5	47
Other household members	2.0	2
LEAP teen and her children	41.6	42
LEAP teen, her children, and other household members	2.0	2
Of those who spent the bonus on essentials,		
the essentials that were purchased:		
Food	44.6	45
Clothing	79.2	80
Medicine	29.7	30
Shelter	10.9	11
Spent the bonus on bills	35.7	41
Of those who spent the bonus on bills,		
the bills they spent the bonus on:		
Rent	24.4	10
Car payments	2.4	1
Personal loan payments	22.0	9
Groceries	2.4	1
Utilities	68.3	28
Medical	4.9	2
Lost library books	4.9	2
Spent the bonus on luxuries	22.6	26
Of those who spent the bonus on luxuries, the		
household members who were affected:		
LEAP teen	7.7	2
LEAP teen's children	23.1	6
Other household members	0.0	0
LEAP teen and her children	65.4	17
LEAP teen, her children, and other household members	3.8	1
Of those who spent the bonus on luxuries,		
the luxuries that were purchased:		
Toys	11.5	3
Ice cream	15.4	4
Clothing	19.2	5
Movies	7.7	2
Trip to the zoo	7.7	2
Birthday party	3.8	1

(continued)

Table 3.2 (continued)

Spending Method	Percentage Who Employed the Method	Number Who Employed the Method
Saved the bonus	24.3	28
Of those who saved the bonus, what they saved the bonus for:		
Purchasing essentials	21.4	6
Purchasing luxuries	3.6	1
The children	64.3	18
Unexpected emergencies	7.1	2
Moving expenses	3.6	1
Gave or lent the bonus to a family member or friend	11.3	13
Used the bonus as general household money	2.6	3
Used the bonus to pay for apartment or home repairs	0.9	1
Used the bonus for transportation or to purchase a bus pass	4.3	5
Used the bonus to purchase merchandise	2.6	3
Sample size	115	

SOURCE: MDRC calculations using data from the LEAP three-year survey.

NOTES: Because this table is based on a relatively small sample (the 115 survey respondents who reported having earned more than three bonuses), some of the percentages refer to very few LEAP teens. To make this clear, each item is shown with both the percentage and the absolute number of respondents who cited that spending method as one she employed.

      Percentages may not sum to 100.0 because many respondents spent their bonuses in more than one way.

Table 3.3

LEAP's 12-Month Impacts on School Enrollment,
by Initial School Enrollment Status

Outcome	Program Group	Control Group	Difference	Percentage Change
Full 12-Month Survey Sample				
In the 12 months after random assignment				
Enrolled 10 or more months in[a] (%)				
High school	36.0	28.7	7.3 ***	25.4
A GED program	6.2	3.5	2.7 **	77.1
Average number of months enrolled in[a]				
High school	4.8	4.2	0.6 **	14.3
A GED program	1.3	0.8	0.5 *** ·	62.5
Sample size	605	583		
Sample Members Enrolled in High School or in a GED Program at Random Assignment				
In the 12 months after random assignment				
Enrolled 10 or more months in[a] (%)				
High school	56.2	46.9	9.3 **	19.8
A GED program	5.4	3.5	1.9	54.3
Average number of months enrolled in[a]				
High school	7.3	6.6	0.7 *	10.6
A GED program	0.9	0.7	0.3	42.9
Sample size	349	319		
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment				
In the 12 months after random assignment				
Ever enrolled in (%)				
High school	20.4	16.2	4.3	26.5
A GED program	28.5	17.4	11.1 ***	63.8
Enrolled 10 or more months in[a] (%)				
High school	10.1	4.9	5.2 **	106.1
A GED program	7.3	3.5	3.8 *	108.6
Average number of months enrolled in[a]				
High school	1.5	1.0	0.5 *	50.0
A GED program	1.7	0.9	0.8 ***	88.9
Sample size	256	264		

SOURCES: MDRC calculations using data from Teen Parent Information Sheets and the LEAP 12-month survey.

NOTES: Differences, as well as program and control group means, are regression-adjusted to correct for slight differences between program and control groups in baseline characteristics.

    Rounding may cause slight discrepancies in calculating differences.

    A two-tailed t-test was applied to differences between program and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

    [a]Months after teens graduated from high school or received a GED are counted as months of enrollment.

Table 3.4

LEAP's Three-Year Impacts on Grade Completion, High School Graduation, and GED Receipt, by Initial School Enrollment Status

Status Three Years After Random Assignment	Program Group	Control Group	Difference	Percentage Change
Full Three-Year Survey Sample				
Ever completed (%)				
Grade 9	89.4	86.1	3.2 *	3.7
Grade 10	74.0	69.0	5.0 **	7.2
Grade 11	50.0	45.4	4.6 *	10.1
Ever graduated from high school (%)	22.9	23.5	-0.6	-2.6
Ever received a GED (%)	11.1	8.4	2.7	32.1
Ever graduated from high school or received a GED (%)	34.0	31.9	2.1	6.6
Sample size	446	467		
Sample Members Enrolled in High School or in a GED Program at Random Assignment				
Ever completed (%)				
Grade 9	94.0	91.1	2.9	3.2
Grade 10	81.3	79.6	1.8	2.3
Grade 11	60.6	58.1	2.5	4.3
Ever graduated from high school (%)	35.6	34.2	1.4	4.1
Ever received a GED (%)	10.0	4.4	5.6 **	127.3
Ever graduated from high school or received a GED (%)	45.6	38.6	7.0 *	18.1
Sample size	267	260		
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment				
Ever completed (%)				
Grade 9	81.5	80.8	0.7	0.9
Grade 10	62.8	55.8	6.9	12.4
Grade 11	35.8	28.0	7.8 *	27.9
Ever graduated from high school (%)	6.7	7.8	-1.1	-14.1
Ever received a GED (%)	12.0	14.3	-2.3	-16.1
Ever graduated from high school or received a GED (%)	18.6	22.1	-3.4	-15.4
Sample size	179	207		

SOURCES: MDRC calculations using data from Teen Parent Information Sheets and the LEAP three-year survey.

NOTES: Differences, as well as program and control group means, are regression-adjusted to correct for slight differences between program and control groups in baseline characteristics.

Rounding may cause slight discrepancies in calculating differences.

A two-tailed t-test was applied to differences between program and control groups. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

school graduation, and GED receipt are presented in Table 3.4.[11]

For a sample of 1,188 teens in seven of the 12 research counties, LEAP was found to have had a statistically significant positive effect on school enrollment during the first 12 months after random assignment. For those initially enrolled, LEAP increased the percentage who remained enrolled in high school or in a GED program for at least 10 out of the 12 months of follow-up by 10.3 percentage points, from 51.1 percent of the control group to 61.3 percent of the program group (not shown in the table). For those not initially enrolled, the program caused an 11.1 percentage point increase in enrollment in GED programs (from 17.4 percent of the control group to 28.5 percent of the program group), but it failed to significantly increase the number of not initially enrolled teens who returned to high school. These enrollment impacts might have been an underestimate of the true enrollment effects of a steady-state LEAP program, because such a program would involve most pregnant and parenting teens earlier and would therefore have an easier time influencing their choices and behavior.

The LEAP program did increase school retention among those who returned to school. For this group, the number of months in high school or a GED program increased from 1.9 (for the control group) to 3.2 for the program group, a 68 percent increase (not shown in the table).

The level of school enrollment impacts was consistent across counties, although in some counties the enrollment impacts were concentrated in GED programs, whereas in others they mostly affected enrollment in high school.

Table 3.4 summarizes LEAP's impacts on grade completion, high school graduation, and GED receipt for the three-year survey sample. These results are also presented separately for those initially enrolled and those not initially enrolled. LEAP was found to have had positive impacts on school progress (grade completion) and GED receipt. However, impacts on high school graduation did not materialize. Also, with the exception of 11th-grade completion, impacts were limited to initially enrolled sample members. LEAP had statistically significant impacts on 9th-, 10th-, and 11th-grade completion. However, these impacts did not extend to the 12th grade: LEAP teens did not complete high school more often than control group teens, at least by the three-year point. There was, however, a statistically significant impact on high school completion in Cleveland and East Cleveland combined, based on an analysis of school records data from those cities (see the 1996 report, p. 57), and there is some evidence that these gains may have been partly attributable to the enhanced LEAP services provided on a pilot basis in some Cleveland high schools, as discussed in Chapter 1. (Impacts from school records data did not appear for other cities for which these data were available.)

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[11]The representativeness of these two survey samples and nonresponse issues are discussed in the 1993 and 1996 reports. Also, as noted in Chapter 2, asterisks in this report's impact tables denote statistical significance. A result is statistically significant if there is less than a 10 percent probability of its having occurred by chance and not as a result of the program.

Several possible explanations for the somewhat disappointing graduation results were offered in the 1996 report. First, LEAP teens may have encountered problems in the 12th (but not in the 10th or 11th) grade that prevented them from graduating. For example, those who had not passed courses prior to completing the 11th grade had to make them up by the end of the 12th grade. Second, some LEAP teens left high school to enroll in a GED program or to start a job after finishing the 11th grade.[12] Teens who faced difficult course requirements for graduating (because of not having passed them earlier) would shed them in moving to a GED program, and GED programs require fewer hours of class time. Also, GED programs in some locations offered special services or instruction. Third, some of the teens whom LEAP induced to stay in or return to high school turned 20 while still in high school, making them no longer subject to the LEAP program and its incentive structure. This is particularly true for teens who were out of school at random assignment (and had not been enrolled for an average of more than a year). Fourth, some LEAP teens who did not graduate within the three-year period covered by the survey may eventually have graduated; 7.1 percent of the LEAP teens were still enrolled in high school at the end of the three-year follow-up period, and there was some evidence in school records that more teens in the program group graduated in the fourth year after becoming eligible for LEAP than did teens in the control group. Fifth, until recently, LEAP offered no incentive to graduate. As indicated earlier, LEAP offered bonuses for attending school and for re-enrolling in school each academic year, but the program included no bonus for graduating. In fact, a teen who was attending and receiving bonuses regularly stood to lose her bonus payments if she graduated before turning 20. Starting at age 20, when LEAP eligibility ended, teens received neither bonuses for attending school nor sanctions for failing to attend.

Even though the program did not increase rates of high school graduation for initially enrolled teens, Table 3.4 does show that LEAP caused a substantial increase in GED receipt by these teens. Therefore, it seems that rather than keeping initially enrolled teens in school until graduation, the program's effect was limited to moving those who decided to drop out anyway into GED programs, which could result in their obtaining a GED certificate.

The bottom panel of Table 3.4 shows a very different result for teens who were not initially enrolled. As evidenced by the impact on 11th-grade completion, the program succeeded in returning such teens to high school. However, these impacts on enrollment and school progress did not produce concomitant increases in the receipt of educational credentials. In fact, for those not initially enrolled, impacts on high school graduation and GED receipt were negative, albeit not statistically significant.

IV.   **Impacts on Family Composition and Fertility**

For young women, a large pitfall on the road to self-sufficiency is bearing additional children without gaining additional financial and social support from their fathers. This reduces

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[12]State rules do not permit teens who are under the age of 18 to leave high school to enroll in a GED program. Some counties and school districts are more flexible than others in granting exceptions to this regulation.

the likelihood of school completion, makes entry into the labor market and the maintainance of stable employment more difficult (because of child care needs), and increases the financial needs of the family without appreciably changing its financial resources. The three-year survey measured impacts on childbirth and marriage, and no statistically significant differences were found during the three years covered by the survey. At the time of that survey, only 9.4 percent of the program group and 8.4 percent of the control group were married. Nevertheless, 26.7 percent of teens in the program group and 25.7 percent of teens in the control group reported having given birth in the year prior to the survey (the difference was not statistically significant). These rates of repeat births were high compared with other teen parent samples (see, e.g., Quint, Bos, and Polit, 1997). At the time of the survey, 10.3 percent of program group members and 13.9 percent of control group members reported being pregnant. The difference, an apparent reduction in pregnancy associated with the LEAP program, was very close to statistically significant. This impact of the LEAP program was concentrated among the not initially enrolled teens, among whom 7.6 percent of program group members were pregnant, compared with 15.2 percent of control group members. This 7.5 percentage point difference was statistically significant.

LEAP's financial incentive structure was not expected to have a direct impact on child-bearing. Any effect would be indirect and would take time to unfold. One might expect that, if LEAP were to increase the probability that teens complete school (or make substantial academic progress) and consequently were to improve their labor market prospects, teens might decide to have fewer children. An economist would attribute this indirect effect on pregnancies to higher "opportunity costs" (i.e., having more children potentially diminishes the opportunity to do other things such as work more hours and earn more money), and a psychologist might point to teens' improved stability and self-concept. The fact that most of the measured decrease in current pregnancy was concentrated among the not initially enrolled teens suggests that the program's potential long-term impact on childbirth is not associated with its direct impact on school completion, because LEAP had no impact on completion for this subgroup.

Chapter 4

Impacts on Employment and Earnings

I.   Introduction

This chapter presents four-year impacts of LEAP on the employment and earnings of teens randomly assigned in the 12 research counties. LEAP set out to increase school enrollment and attendance among teen parents on welfare, and it was hoped that the program would also improve their school completion rates (discussed in Chapter 3) and their long-term employment outcomes and earnings, with more teens eventually achieving self-sufficiency.

The findings presented in this chapter are based on administrative data from Ohio's state Unemployment Insurance (UI) system. Employers are required to submit quarterly earnings records to the Unemployment Insurance administration. These data were accessed for all teens in the LEAP sample, using their Social Security number to find the appropriate records. Most of the findings presented in this chapter are limited to sample members randomly assigned between mid-August 1990 and September 1991.[1] For these sample members, earnings data were available for calendar quarters 3 through 18 after random assignment. This means that earnings and employment outcomes are not presented for the calendar quarter during which teens entered the study and the quarter following that.[2]

Also, this chapter does not present employment outcomes for quarters 17 and 18, because during these quarters many sample members (both program group members and control group members) became subject to the federal-state Job Opportunities and Basic Skills Training (JOBS) Program. This may have affected control group members differently from program group members in ways that could confound the estimated impacts of the LEAP program.[3] Therefore, findings presented in this chapter are limited to post-random assignment quarters 3 through 16.

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[1]As previously discussed, the research sample for this report was selected to provide a representation of the LEAP program after it had progressed beyond its initial start-up phase. Using as this report's research sample the teens who had entered LEAP at a later point also addressed some data availability issues, examined in greater detail in Chapter 2.

[2]As discussed in Chapter 2, the employment and earnings impacts presented in this chapter are based on Unemployment Insurance data, which are collected on a quarterly basis (for January-March, April-June, etc.). Quarter 1 is the quarter in which sample members were randomly assigned to the program group or the control group. See Chapter 2 for details.

[3]Specifically, the impacts of JOBS on LEAP control group members are hypothesized to be larger than the impacts on LEAP program group members for two reasons. First, becoming mandatory for a welfare-to-work program would be more of a shock for LEAP control group members, who had been exempt from such obligations for several years, than for sample members assigned to the LEAP program, who had been working with a case manager, possibly had been sanctioned, and would have been more aware of the reciprocal nature of their receiving welfare. Second, in most cases, teens in the program group would have kept their LEAP case worker after becoming JOBS-mandatory. Having built a rapport with this case worker (who would likely have become familiar with the

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As discussed in Chapter 3, LEAP's effects have been found to vary by school enrollment status at random assignment. Teens who were not enrolled in high school or in a GED program at the time of random assignment (the "not initially enrolled" teens) experienced fewer education gains from the LEAP program during the ensuing three years than teens who were enrolled in school at the time of random assignment (the "initially enrolled" teens). Teens in the latter group experienced statistically significant and positive impacts on GED receipt and employment (as measured with the three-year survey).[4] It was expected that greater impacts on school completion for sample members who were already enrolled at random assignment would translate into increased employment rates and higher earnings. To test this hypothesis, findings on employment and earnings were analyzed (and are presented) separately for those who were enrolled in high school or in a GED program at random assignment and for those who were not. It is important to realize, however, that initial enrollment status was not always predictive of subsequent enrollment in high school or GED programs or of subsequent education outcomes. Of the not initially enrolled control group members, 16.2 percent returned to high school during the first year after random assignment. And of those who were initially enrolled, only 46.9 percent remained enrolled for 10 or more months during the first year of follow-up (see Bloom et al., 1993, p. 132).

The structure of this chapter is as follows: Section II leads off with a discussion of employment outcomes and their variation over time for members of the control group. This discussion sets the stage for the subsequent presentation of LEAP's impacts. Section III presents impacts on employment rates and earnings for the full research sample, for those enrolled in high school or in a GED program at baseline (random assignment), and for those not enrolled in school at baseline. This section also describes the characteristics of jobs teens got and the teens' job-seeking behavior. Finally, Section IV presents the employment and earnings impacts separately for a number of different subgroups defined by baseline characteristics and discusses variation in impacts by county.

II.   Employment Outcomes Among LEAP Control Group Members

Employment outcomes for those randomly assigned to the control group represent what those outcomes would have looked like for teens assigned to the LEAP program if they had not been subject to LEAP. Figure 4.1 shows quarterly employment rates and cumulative quarterly employment rates for those assigned to the LEAP control group between mid-August 1990 and September 1991. From the figure, it appears that employment among LEAP control group members increased slowly but steadily during the follow-up period. By the end of quarter 16 (four years after random assignment), more than 75 percent of all teens in the control group had

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teen's family circumstances and possible barriers to participation) might have made some LEAP program group members less subject to the more punitive aspects of the JOBS program.

[4]These findings were reported in Long et al., 1996. The employment impacts presented there, based on a smaller sample and a different data source, differ somewhat from those presented in this chapter. See Appendix E.

Figure 4.1

**Percentage of LEAP Control Group Members Currently Employed in Each Quarter
or Ever Employed in Quarters 3-16 After Random Assignment**
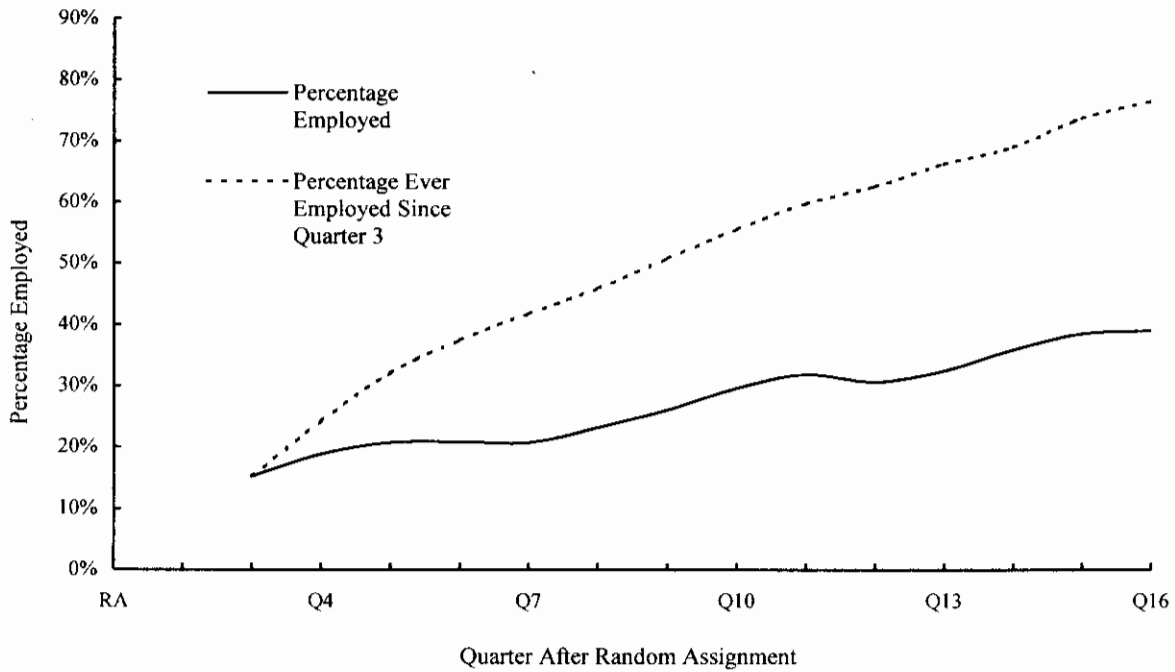
Quarter After Random Assignment

SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records. See
Appendix Table D.1 for data corresponding to the figure.

worked for pay at some point (in a job that was covered by Unemployment Insurance). Quarterly employment rates increased from 15.1 percent in quarter 3 to 39.0 percent in quarter 16. And by that time, the average member of the LEAP control group was only 21.0 years old.

These employment rates among control group members formed the primary context for the potential employment effects of the LEAP program. Considering Figure 4.1, how would one expect the program to have changed this picture? There were several possible effects. First, LEAP might have been expected to reduce employment rates in the short run, as those exposed to the program were provided with an incentive to return to school instead of pursuing a part-time or full-time job. In the longer run, the expected effects of LEAP would be more ambiguous and would depend on teens' graduation status and subsequent participation in post-secondary education and training. To the extent that, as a result of their exposure to LEAP, more teens successfully completed their high school education with a diploma (or received a GED certificate), expected long-term employment effects would be positive. It is well documented that most jobs (even entry-level jobs) require a high school diploma and that the wages of workers who have not graduated from high school are very depressed (Murnane, Willett, and Boudett, 1995; Sum, Taggart, and Fogg, 1995). It is likely, however, that some high school graduates went on to college or entered post-secondary training programs, which would have delayed (and, it is hoped, eventually enhanced) the expected positive effects of graduation from high school. The available follow-up of four years (16 quarters) may be too short to capture these benefits entirely. Unfortunately, for most sample members, speculation about the effects of graduation from high school is not relevant because two-thirds of all LEAP program group members failed to obtain a high school diploma or a GED by the time of the three-year follow-up survey (as discussed in the 1996 report, p. ES-7). It is unlikely that LEAP would have a sustained positive effect on the employment outcomes for those teens.[5]

Figure 4.2 shows cumulative quarterly employment rates for control group members, broken down by enrollment status at random assignment. From this figure, it becomes clear that long-term employment outcomes for those initially enrolled are more favorable than for those not initially enrolled, even if those differences do not appear until quarter 10 (or two and a half years after random assignment). By the end of the follow-up period (quarter 16), 80.2 percent of the initially enrolled control group members had worked in a job covered by Unemployment Insurance, as opposed to 71.7 percent of those not initially enrolled. In other words, sample members who were initially enrolled were more likely to find employment on their own, even if they had not been assigned to the LEAP program.

The impacts of LEAP on employment rates and on other employment outcomes for these two groups must be viewed in the context of these outcomes for the control group. Though LEAP may be expected to have stronger impacts on employment outcomes for those initially enrolled, potential employment effects for this group may be limited because it is more difficult

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[5]One might speculate, however, that the imposition of welfare sanctions on LEAP teens who did not stay in school or return to school may have given them an indirect incentive to work by making welfare less attractive. In turn, additional work leads to the accumulation of work experience, which in and of itself is expected to enhance long-term employment outcomes.

Figure 4.2

**Percentage of LEAP Control Group Members Ever Employed
Since Quarter 3 After Random Assignment**
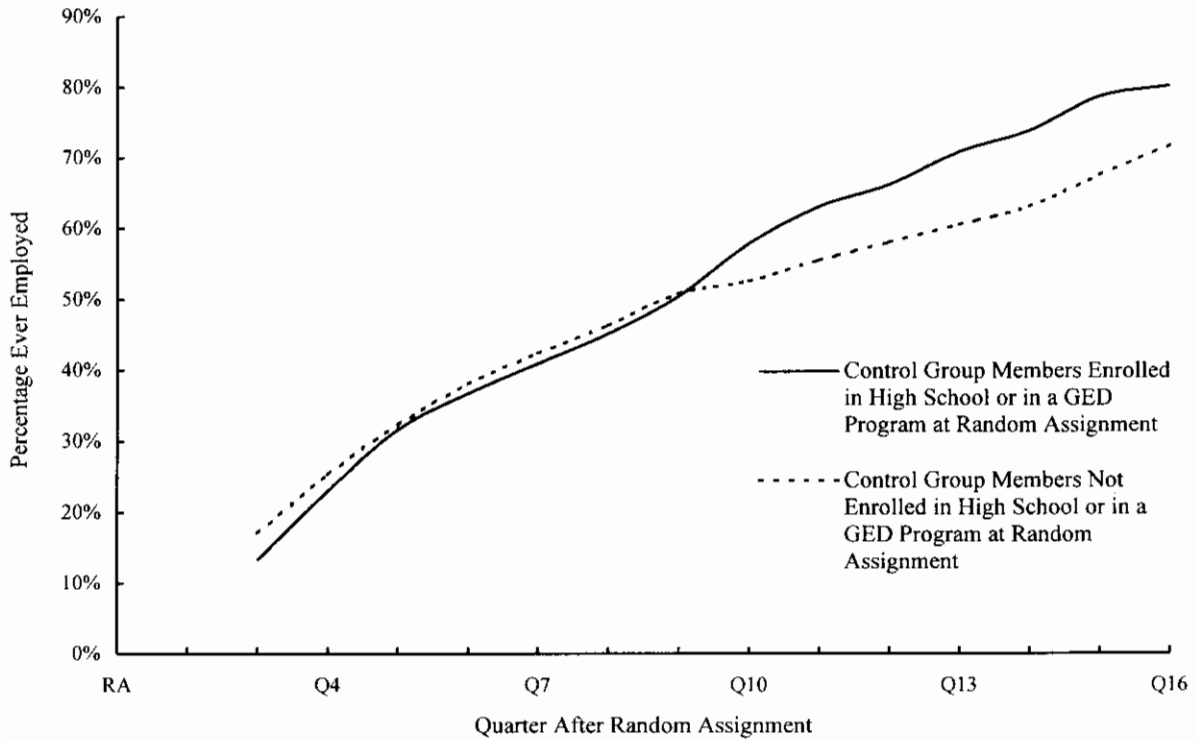
SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records. See Appendix Table D.2 for data corresponding to the figure.

for the LEAP program to improve on the already substantial employment levels among control group members who were initially enrolled.

Figure 4.3 examines the quarterly earnings of LEAP control group members (again, only from employment covered by Unemployment Insurance). As the bottom graph shows, average earnings increased slowly but steadily over time, going from $98 in quarter 3 to $568 in quarter 16. Note that these earnings figures are depressed by the large number of sample members who were not employed (and therefore had zero earnings). The top graph in Figure 4.3 excludes those who were not employed at all, showing earnings only for those with any employment during the quarter. This amount increased steadily as well, even as more sample members became employed. Thus, in quarter 16, the average employed control group member earned $1,457, a substantial increase from quarter 3, when she earned $650. It is important to realize that to have any effects on these outcomes, LEAP would have had to increase earnings over and above these natural increases observed for control group members, who improved their employment outcomes without being subject to a LEAP mandate and without receiving LEAP's services, bonuses, or sanctions. The following section shows to what extent the program was successful in this effort.

III. Program Impacts on Employment and Earnings

A. Impacts for the Full Research Sample

In Figure 4.4, quarterly employment rates are presented for program group members and control group members. The dashed line (for control group members) corresponds to the quarterly trend in employment rates among this group shown in Figure 4.1.[6] The figure shows that LEAP increased employment in the short run, but did not have substantial positive effects on long-term employment rates for the sample as a whole. This finding is also reflected in Table 4.1, which presents aggregate impacts on employment and earnings for the full sample; it reveals an interesting pattern of employment impacts. Positive impacts on employment occurred during the first year and a half of the follow-up period (quarters 3 through 8). During quarters 5 through 8, these impacts were statistically significant, and they were close to being statistically significant in quarters 3 and 4 (p = 0.130, meaning that there was only a 13 percent probability that the results were attributable to random error — very close to the 10 percent probability that denotes statistical significance). This finding is unexpected, because during this time, employment rates for the program group were expected to be attenuated owing to increased school attendance and participation in GED programs. Increased school attendance among program group members did not seem to have such an effect. There are several possible explanations, including: (1) Those in the program group who returned to school would not have worked anyway; (2) enrollment in

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Figure 4.3

LEAP Control Group Members' Average Quarterly Earnings in
Quarters 3-16 After Random Assignment
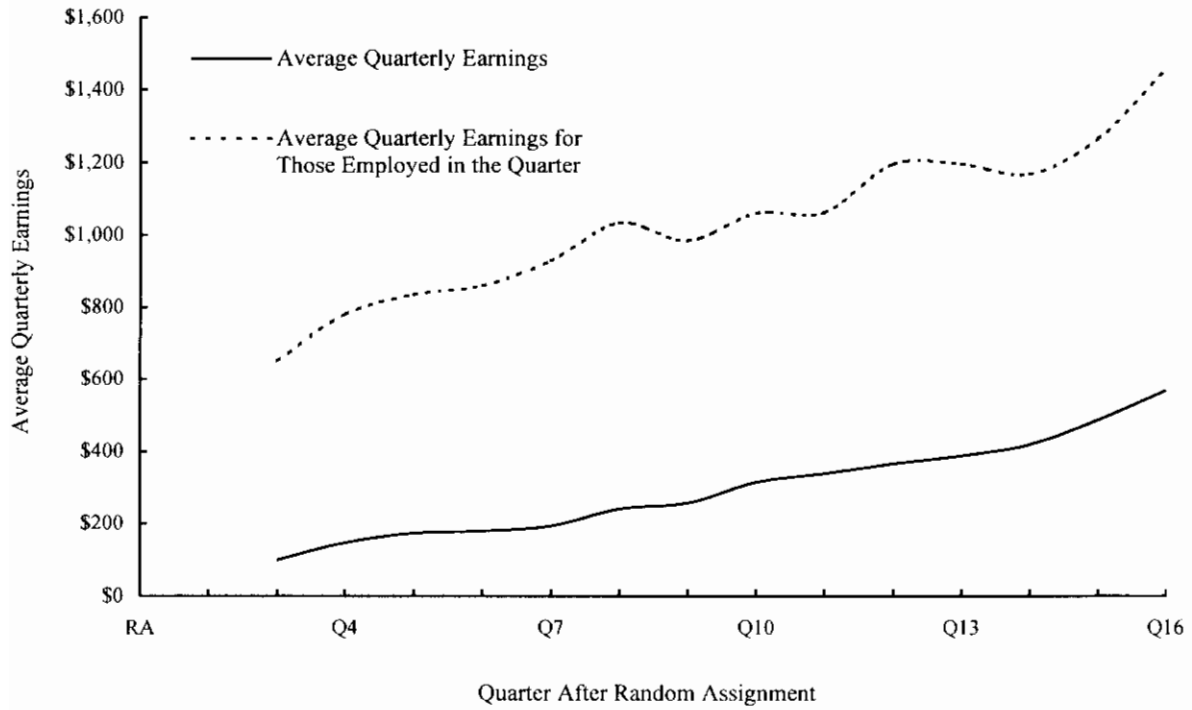
SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records. See Appendix Table D.3 for data corresponding to the figure.

Figure 4.4

**Quarterly Employment Rates of the LEAP Research Sample in
Quarters 3-16 After Random Assignment**

Quarter After Random Assignment
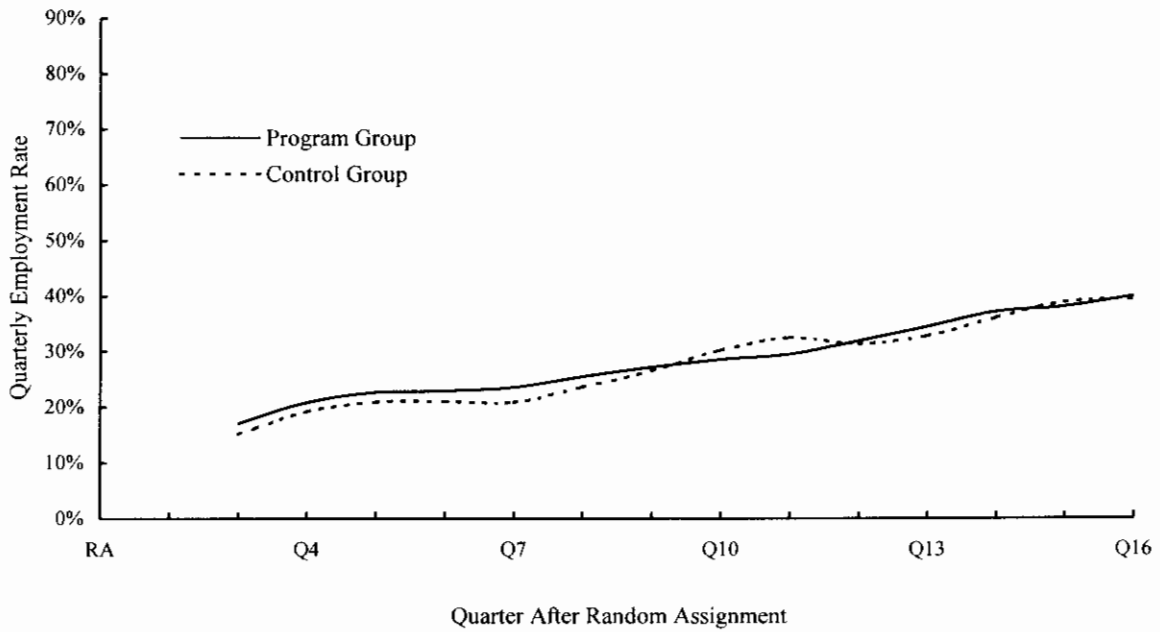
SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records. See
Appendix Table D.4 for data corresponding to the figure.

NOTE: The averages or percentages are regression-adjusted controlling for 38 kinds of differences
in characteristics before random assignment.

Table 4.1

LEAP's Four-Year Impacts on Employment and Earnings

Outcome and Period After Random Assigment	Program Group	Control Group	Difference	Percentage Change	p-value[a]
Ever employed (%)					
Quarters 3-4	27.1	24.5	2.5	10.4	0.130
Quarters 5-8	43.8	40.6	3.1 *	7.7	0.093
Quarters 9-12	51.3	49.8	1.4	2.9	0.444
Quarters 13-16	61.0	59.6	1.4	2.3	0.458
Quarters 3-16	78.2	76.6	1.6	2.1	0.310
Ever employed in quarter 16 (%)	39.9	39.4	0.5	1.4	0.768
Number of quarters employed					
Quarters 3-16	3.99	3.88	0.11	2.8	0.437
Total earnings ($)					
Quarters 3-4	315	252	64 *	25.3	0.095
Quarters 5-8	927	808	119	14.8	0.172
Quarters 9-12	1,311	1,320	-9	-0.7	0.934
Quarters 13-16	1,852	1,914	-61	-3.2	0.647
Quarters 3-16	4,405	4,293	112	2.6	0.712
Sample size	3,479	672			

SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error.

high school opened up opportunities for part-time work; or (3) LEAP teens who did not return to school pursued part-time employment to make up for AFDC benefits lost to sanctions.

To explore this issue a little further, employment patterns were examined for program group members who received bonuses to see whether any worked during quarters in which they also earned bonuses. This analysis found that, on average, program group members worked during 24.4 percent of the quarters in which they received a bonus, implying that almost one out of every four teens attending school regularly was also employed in the same quarter. These employment rates are close to those found for quarters in which teens were sanctioned (23.5 percent) and for quarters in which no bonus or sanction was received (30.9 percent). This suggests that regular school attendance and employment are not incompatible.

As was apparent from Figure 4.4, the early employment effect in quarters 3 through 8 diminished in the two years that followed. Table 4.1 shows that, in quarters 9 through 16, there were no statistically significant program impacts on employment. There was also no statistically significant impact on the total number of quarters in which sample members recorded any employment covered by Unemployment Insurance. Both research groups were employed in about four of the 14 follow-up quarters. This means that even among those who were employed at some point during this period, the average quarterly employment rate was only about 35 percent (not shown).

Thus, while the overall employment rates were reasonably high (at 78.2 percent and 76.6 percent for program group members and control group members, respectively), few sample members worked continuously throughout the follow-up period. Quarterly earnings reflect these patterns. In the first two quarters of follow-up represented in Table 4.1 (quarters 3 and 4), the average LEAP program group member earned $315, for a statistically significant impact of $64 (or 25.3 percent) over the control mean (average) of $252. These figures, which include zeroes for those who were not employed during the quarter, represent quarterly averages of $826 and $725 for employed program group members and control group members, respectively, or between $276 and $242 per month (not shown). Over time, earnings increased for both research groups, but the early impacts of LEAP were not sustained. In the last year of follow-up (quarters 13 through 16), teens assigned to LEAP earned $1,852, whereas control group members earned $1,914. The difference was not statistically significant. For those who worked, this represents average quarterly earnings of $1,235 and $1,295 for program group members and control group members, respectively, or $412 and $432 per month (not shown).

B. Impacts by School Enrollment Status at Random Assignment

Table 4.2 presents the same outcomes as those shown in Table 4.1, broken down by school enrollment status at random assignment. The top panel shows impacts for teens who were enrolled in high school or in a GED program ("initially enrolled" teens), and the bottom panel shows impacts for those who were not enrolled in these activities at random assignment ("not initially enrolled" teens). The differences in impacts between these two groups are substantial

Table 4.2

LEAP's Four-Year Impacts on Employment and Earnings, by Initial School Enrollment Status

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value[a]
Sample Members Enrolled in High School or in a GED Program at Random Assignment					
Ever employed (%)					
Quarters 3-4	28.9	23.7	5.2 **	21.9	0.023
Quarters 5-8	46.4	39.7	6.7 ***	17.0	0.008
Quarters 9-12	55.7	54.7	1.0	1.9	0.690
Quarters 13-16	65.1	60.5	4.6 *	7.6	0.068
Quarters 3-16	81.6	80.6	1.0	1.2	0.636
Ever employed in quarter 16 (%)	44.6	40.9	3.7	9.1	0.144
Number of quarters employed					
Quarters 3-16	4.41	4.03	0.38 **	9.4	0.045
Total earnings ($)					
Quarters 3-4	343	242	101 *	41.9	0.050
Quarters 5-8	1,040	812	228 *	28.0	0.056
Quarters 9-12	1,465	1,342	124	9.2	0.404
Quarters 13-16	2,014	1,923	91	4.7	0.619
Quarters 3-16	4,862	4,319	544	12.6	0.191
Sample size	1,917	355			
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment					
Ever employed (%)					
Quarters 3-4	25.3	25.8	-0.5	-2.1-	0.828
Quarters 5-8	41.0	42.2	-1.2	-2.8	0.667
Quarters 9-12	46.3	44.0	2.4	5.3	0.398
Quarters 13-16	56.3	58.8	-2.6	-4.4	0.345
Quarters 3-16	74.4	72.3	2.1	2.9	0.364
Ever employed in quarter 16 (%)	34.7	37.8	-3.1	-8.3	0.253
Number of quarters employed					
Quarters 3-16	3.52	3.72	-0.20	-5.4	0.335
Total earnings ($)					
Quarters 3-4	292	270	22	8.1	0.697
Quarters 5-8	816	816	0	0.0	1.000
Quarters 9-12	1,144	1,287	-143	-11.1	0.371
Quarters 13-16	1,678	1,898	-220	-11.6	0.265
Quarters 3-16	3,930	4,271	-341	-8.0	0.447
Sample size	1,562	317			

(continued)

Table 4.2 (continued)

SOURCE: MDRC calculations from Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

and were generally found to be statistically significant.[7] It appears that LEAP increased employment and earnings among those initially enrolled, while not having positive effects on employment outcomes for those not initially enrolled. Especially in the early part of the follow-up period (quarters 3 through 8), impacts on employment rates and earnings for those initially enrolled were strong, with percentage gains ranging from 17.0 percent to about 42 percent. For those not initially enrolled, there were no employment impacts.

For those initially enrolled, the pattern of impacts over time was unexpected. As mentioned earlier, LEAP was expected to reduce earnings and employment rates for teens who were induced by the program to stay in school. Such reductions in earnings are known as the "opportunity cost" of human capital development programs such as LEAP. However, it appears that LEAP did not have such an opportunity cost for the initially enrolled teens. Instead, the program increased employment and earnings in the early part of the follow-up period. It is possible that some of the expected opportunity cost may have manifested itself in quarters 1 and 2, for which no data were available, but a more plausible hypothesis for the apparent lack of opportunity cost is that teen parents do not substitute school enrollment for work, i.e., if they are not in school, they are unlikely to be employed instead.

For those not initially enrolled, the negative impacts in later quarters are of special concern.[8] It is unlikely that these impacts represent opportunity costs of participation in education, as program-control differences in school enrollment had almost disappeared by the end of the follow-up period.[9] The question, then, is: What did cause these negative impacts? One possible explanation is that LEAP managed to increase school attendance among those not initially enrolled but did not increase their graduation rates.[10] Thus, even as many teens who were not initially enrolled returned to school and increased their education levels, most failed to obtain a high school credential. This failure to turn education gains into a marketable asset in the labor market may have actually reduced these teens' immediate employment prospects by making

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[7]A statistical test was conducted to test the significance of each difference in impacts shown in Table 4.2 and in any other table showing differences in impacts across portions of the full research sample (i.e., subgroups). This test works as follows: Using regression analysis on the full research sample, separate program impacts were estimated for the initially enrolled and the not initially enrolled groups by using interaction terms, which capture the combined effects of being in the program group and being in one of the two initial enrollment groups. Next, the two regression coefficients associated with these interaction terms are constrained to be identical, which reduces the explanatory power of the statistical model (it no longer "fits" the data as well). If this reduction in statistical power is statistically significantly different from zero, it is concluded that the two regression coefficients on the interaction terms are statistically significantly different from each other. This widely used statistical test is known as a Chow test (see Kennedy, 1992).

[8]Even though the negative earnings impacts for quarters 3 through 16 presented in Table 4.2 were not statistically significant, the impact for the last quarter (16) was statistically significant (not shown).

[9]At the time of the three-year follow-up survey, as noted in the 1996 report, 13.6 percent of not initially enrolled program group members were enrolled in high school or in a GED program, compared with 9.5 percent of their counterparts in the control group. The difference was not statistically significant See also Chapter 3 of the present report.

[10]As noted in the 1996 report, there was a statistically significant increase in completion of the 11th grade among these teens (35.8 percent of program group members completed the 11th grade, whereas 28.0 percent of control group members did).

them less willing to accept unskilled jobs while not providing them with the credentials to secure better ones.[11]

C. Job Characteristics

The three-year survey gives some idea of what the jobs held by LEAP teens were like in terms of hours worked, health insurance, and other benefits. At the time of that survey, 19.3 percent of respondents indicated that they were currently employed. Teens in the program group reported more employment than teens in the control group (20.9 percent vs. 17.8 percent). Workers in the program group were also somewhat more likely to have a full-time job (defined as a job that occupied more than 30 hours per week) than workers in the control group (70.7 percent vs. 63.9 percent). However, this difference was not statistically significant.

Among those employed at the time of the survey, only 3.4 percent (less than 1 percent of the full survey sample) said that they also currently had a second job. For this reason, the statistics in the present section concentrate on information provided about the respondents' first job. On average, respondents who worked reported doing so for 34.0 hours per week and 3.8 weeks per month. For 67.4 percent of workers, employment was full time (30 hours or more per week), and 50.3 percent of all workers said that they worked 40 hours or more per week at the time of the survey.

Of those employed, 31.9 percent reported having a health plan provided with their job: This was the case for 14.0 percent of part-time workers and for 40.6 percent of full-time workers. Among those who worked, respondents in the control group were more likely to have health care coverage than respondents in the program group (40.9 percent versus 24.4 percent). This difference was statistically significant, and it may reflect the fact that program group members (who were more likely to be employed) were also more willing to take jobs without health coverage.

Paid sick days, paid vacations, dental benefits, and reimbursement for classes or training were provided to 22.2 percent, 39.7 percent, 22.4 percent, and 19.4 percent of workers, respectively. A higher proportion of workers in the program group than in the control group benefited from paid vacations, but a higher proportion of control group members were covered by the other benefits.

Almost half of the workers were active in one of three main types of employment: cashiers (15.3 percent), office workers (14.2 percent), and nurse's aides or orderlies (also 14.2 percent). Sales workers represented 6.3 percent of all workers, and jobs like porter, housekeeper, and waitress/waiter represented 3.4 to 5.1 percent each. More workers in the program group

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[11]Other studies of programs targeted at teen parents who dropped out of high school have found that basic education that does not result in an education credential may not improve employment outcomes. See, e.g., Quint, Bos, and Polit, 1997; Bos, 1995, 1996.

reported being cashiers (18.3 percent vs. 12.0 percent) and, to a lesser extent, being office workers (15.1 vs. 13.3 percent).

D. Efforts to Find Work

The three-year survey asked teens who were not employed at the time of the survey whether they were looking for work and what they did to find work. A substantial proportion of jobless respondents (34.1 percent) said that they had looked for a job in the four weeks preceding the survey. Most (57.0 percent of unemployed job-seekers) applied to employers directly. About one in four (25.9 percent) looked at want ads or newspapers, and 7.6 percent answered or placed want ads.

Jobless respondents who did *not* look for work gave as their main reasons wanting to stay home with their child (24.2 percent), inability to find adequate child care (21.5 percent), being in school or training (17.5 percent), or being pregnant (11.1 percent).

IV. Impacts on Employment and Earnings for Subgroups Defined by Characteristics at Random Assignment

In addition to studying the variation in impacts by initial school enrollment status, it is important to find out whether LEAP's impacts varied for other subgroups defined by baseline characteristics (i.e., their characteristics at random assignment), and whether there was significant variation in impacts by county. In this section, impacts are presented for subgroups defined by the following baseline characteristics: age at random assignment, ethnicity, employment in the year prior to random assignment, age for grade status, time out of school, and AFDC case status. Because these characteristics tend to be confounded with school enrollment status at baseline, all subgroup analyses were conducted separately for those initially enrolled (Table 4.3) and those not initially enrolled (Table 4.4). Each of these tables has two panels: The first shows impacts on the number of quarters in which the teens were employed and the second shows impacts on total earnings for quarters 3 through 16.

A. Subgroup Impacts for Those Initially Enrolled

Among those who were enrolled in high school or in a GED program at baseline (the "initially enrolled" teens), LEAP's impacts varied by age. Even though the between-subgroups impact tests did not find statistically significant differences, p-values were small enough (at 0.289 and 0.140 for employment and earnings, respectively) to make a discussion of these differences meaningful. Within the group of initially enrolled teens, it appears that LEAP improved employment outcomes for younger teens (those under 18 at random assignment), but not for those who were 18 or older at random assignment. Within the group of younger teens, impacts on earnings were largest for those who were 17 when they were randomly assigned. This group experienced a statistically significant increase of $1,697 in their total earnings in quarters 3 through 16, a 46.9 percent gain. It is possible that employment impacts for those under 17 did not translate into comparable earnings gains because many of these younger teens might have still

Table 4.3

LEAP's Four-Year Impacts on Employment and Earnings for Sample Members Enrolled in High School or in a GED Program at Random Assignment, by Subgroup

Characteristic and Subgroup at Random Assignment	Sample Size	Number of Quarters Employed, Quarters 3-16		Within-Subgroup Impact	p[a]	Between-Subgroups Impact Difference[b]	p[a]
		Program Group	Control Group				
Age at random assignment (years)						---	0.289
15-16	926	3.79	3.27	0.52 *	0.084		
17	625	4.64	4.01	0.63 *	0.075		
18-19	721	4.97	5.06	-0.09	0.803		
Ethnicity						-0.03	0.935
Black	1,534	4.29	3.96	0.33	0.163		
White, Hispanic, or other	699	4.57	4.21	0.36	0.293		
Employment in year before random assignment						0.10	0.854
Employed	375	5.77	5.32	0.45	0.341		
Not employed	1,808	4.12	3.77	0.35	0.104		
Age for grade status at random assignment						-0.24	0.561
At age for grade	1,627	4.60	4.30	0.30	0.205		
Not at age for grade	639	3.89	3.35	0.54	0.118		
AFDC case status at random assignment						-0.32	0.404
Own case	982	5.02	4.83	0.19	0.525		
Not own case	1,290	3.92	3.41	0.51 **	0.044		

(continued)

Table 4.3 (continued)

Characteristic and Subgroup at Random Assignment	Sample Size	Total Earnings, Quarters 3-16 ($)		Within-Subgroup Impact	p^a	Between-Subgroups Impact Difference[b]	p^a
		Program Group	Control Group				
Age at random assignment (years)						---	0.140
15-16	926	3,277	3,011	266	0.673		
17	625	5,317	3,620	1,697 *	0.024		
18-19	721	6,443	6,780	-337	0.649		
Ethnicity						940	0.281
Black	1,534	4,102	3,937	165	0.737		
White, Hispanic, or other	699	6,385	5,280	1,105	0.125		
Employment in year before random assignment						710	0.518
Employed	375	6,844	5,792	1,052	0.291		
Not employed	1,808	4,478	4,137	342	0.457		
Age for grade status at random assignment						185	0.833
At age for grade	1,627	5,211	4,657	554	0.259		
Not at age for grade	639	3,902	3,532	370	0.610		
AFDC case status at random assignment						26	0.974
Own case	982	6,294	5,747	547	0.378		
Not own case	1,290	3,750	3,229	520	0.331		
Sample size	2,272	1,917	355				

(continued)

Table 4.3 (continued)

SOURCE: MDRC calculations using data from Teen Parent Information Sheets and Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 2,272 sample members who were randomly assigned between mid-August 1990 and September 1991, were enrolled in high school or in a GED program at random assignment, and for whom there were 14 quarters of follow-up data, including sample members with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

The averages are regression-adjusted controlling for up to 38 kinds of differences in characteristics, other than the characteristics used to define subgroups, before random assignment. The two categories used as factors were research status (i.e., membership in the program or control group) and, one at a time, the baseline characteristics indicated. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-subgroup impact. The statistical significance of differences in impacts across subgroups was tested with a t-test (when there were two subgroups) or an F-test (when there were more than two). The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

[b]For each characteristic with only two subgroups, the difference between subgroup impacts is the impact for the first subgroup less the impact for the second subgroup. For characteristics with more than two subgroups, no single difference between subgroup impacts can be calculated, as indicated by dashes in the table. However, it is possible to assess the statistical significance of variation across multiple subgroups, as indicated by the asterisks.

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Table 4.4

LEAP's Four-Year Impacts on Employment and Earnings for Sample Members Not Enrolled in High School or in a GED Program at Random Assignment, by Subgroup

Characteristic and Subgroup at Random Assignment	Sample Size	Number of Quarters Employed, Quarters 3-16		Within-Subgroup Impact	p^a	Between-Subgroups Impact Difference[b]	p^a
		Program Group	Control Group				
Age at random assignment (years)						---	0.764
15-16	265	3.22	3.46	-0.24	0.650		
17	424	3.45	3.41	0.04	0.917		
18-19	1,190	3.63	3.94	-0.31	0.228		
Ethnicity						-0.64	0.119
Black	767	3.52	3.40	0.12	0.691		
White, Hispanic, or other	1,076	3.56	4.08	-0.52 *	0.056		
Employment in year before random assignment						-0.01	0.981
Employed	301	4.73	4.98	-0.25	0.641		
Not employed	1,503	3.30	3.56	-0.26	0.240		
Age for grade status at random assignment						0.33	0.459
At age for grade	568	3.54	4.00	-0.46	0.232		
Not at age for grade	1,309	3.53	3.66	-0.13	0.594		
Years out of school						---	0.467
Less than 1	843	3.47	3.66	-0.19	0.527		
1 to less than 2	593	3.54	3.48	0.06	0.863		
2 or more	443	3.63	4.25	-0.62	0.140		
AFDC case status at random assignment						0.97 **	0.031
Own case	1,419	3.57	4.06	-0.49 **	0.041		
Not own case	460	3.41	2.93	0.48	0.205		

(continued)

Table 4.4 (continued)

Characteristic and Subgroup at Random Assignment	Sample Size	Total Earnings, Quarters 3-16 ($)		Within-Subgroup Impact	p^a	Between-Subgroups Impact Difference[b]	p^a
		Program Group	Control Group				
Age at random assignment (years)						---	0.701
15-16	265	2,964	2,707	256	0.834		
17	424	3,365	3,321	44	0.963		
18-19	1,190	4,357	5,029	-672	0.261		
Ethnicity						-1,576	0.100
Black	767	3,208	2,697	511	0.478		
White, Hispanic, or other	1,076	4,489	5,554	-1,065 *	0.092		
Employment in year before random assignment						-2,189	0.108
Employed	301	6,056	4,750	1,306	0.299		
Not employed	1,503	3,513	4,396	-883 *	0.094		
Age for grade status at random assignment						671	0.522
At age for grade	568	3,655	4,497	-842	0.346		
Not at age for grade	1,309	4,068	4,239	-171	0.756		
Years out of school						---	0.541
Less than 1	843	3,743	3,814	-71	0.918		
1 to less than 2	593	3,942	4,000	-58	0.945		
2 or more	443	4,327	5,637	-1,310	0.183		
AFDC case status at random assignment						1,121	0.282
Own case	1,419	4,129	4,801	-672	0.225		
Not own case	460	3,380	2,931	449	0.610		
Sample size	1,879	1,562	317				

(continued)

Table 4.4 (continued)

SOURCE: MDRC calculations using data from Teen Parent Information Sheets and Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 2,272 sample members who were randomly assigned between mid-August 1990 and September 1991, were enrolled in high school or in a GED program at random assignment, and for whom there were 14 quarters of follow-up data, including sample members with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

The averages are regression-adjusted controlling for up to 38 kinds of differences in characteristics, other than the characteristics used to define subgroups, before random assignment. The two categories used as factors were research status (i.e., membership in the program or control group) and, one at a time, the baseline characteristics indicated. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-subgroup impact. The statistical significance of differences in impacts across subgroups was tested with a t-test (when there were two subgroups) or an F-test (when there were more than two). The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

[b]For each characteristic with only two subgroups, the difference between subgroup impacts is the impact for the first subgroup less the impact for the second subgroup. For characteristics with more than two subgroups, no single difference between subgroup impacts can be calculated, as indicated by dashes in the table. However, it is possible to assess the statistical significance of variation across multiple subgroups, as indicated by the asterisks.

been in school by the end of the follow-up period (four years after random assignment); if they were, school enrollment probably limited the number of hours they worked, while still allowing the program to increase their employment rate.

The fact that no impacts were found for initially enrolled teens who were 18 or older may be due to a number of factors. First, these teens were not subject to the LEAP mandate for as many years as their counterparts who were younger at the time of random assignment. Therefore, one might argue that their program experience was less profound than that of younger teens. Second, employment outcomes for older teens in the control group were much stronger than those for younger teens (e.g., during quarters 3 through 16, control group members in the older group earned $6,780, on average, compared with $3,620 for those who were 17 at random assignment, and $3,011 for those who were 16 or younger). Thus, the program faced more of a challenge in improving outcomes for teens who were older than 17 than it did for younger ones — especially since the over-17-year-old teens in the initially enrolled group were already engaged in an education activity at random assignment, and therefore were probably among the more motivated sample members in their age group, as evidenced by their success in the labor market.

The four remaining subgroup breakdowns presented in Table 4.3 represent substantial differences in employment outcomes, which do not translate, however, into statistically significant differences in program impacts. It appears that African-American teens who were initially enrolled had rates of employment similar to those who were not African-American (a group that was mostly white and included some Latino and Asian teens). LEAP's effect on employment rates was also the same for African-America teens and those who were not African-American. Interestingly, the difference in earnings was much larger than the difference in the number of quarters with employment. This means that employed African-American teens worked in jobs of shorter duration, worked fewer hours, or had lower wages. Unfortunately, the Unemployment Insurance data do not allow us to distinguish among these three possibilities. The impact on earnings appears to have been smaller for African-American teens than for the others. This is consistent with findings from evaluations of the Youth Incentive Entitlement Pilot Projects (YIEPP), which showed that African-American teens were less likely to be employed while attending school at the same time (see Gueron, 1984).

Impacts also did not vary significantly by sample members' prior employment status. Those who were employed in the year prior to random assignment earned substantially more during the follow-up period than those who had not been employed. Interestingly, the program impacts for those who had been employed in the year before random assignment appeared to be more substantial as well ($1,052 vs. $342 for those who had not been employed), although none of the impacts found were statistically significant. This is somewhat unexpected, because those without an employment history might be expected to benefit more from a program like LEAP and the increased participation in education associated with it. Also, other evaluations have found more substantial opportunity costs for sample members with more substantial employment experience (see, e.g., Quint et al., 1994, p. 197).

Finally, there were no differences in impacts by age for grade status (a measure of whether or not sample members were behind in school at the time of random assignment). As expected, those who were at age for grade had higher earnings and were employed during more quarters in the follow-up period. However, program impacts for both subgroups were not statistically significant, and not statistically significantly different from each other. This is a disappointing finding because the 1996 report found that program effects on education outcomes were far more promising for those at or close to age for grade level than for those already one or more years behind.

B. Subgroup Impacts for Those Not Initially Enrolled

For those not initially enrolled, as shown in Table 4.4, the subgroup breakdown by age at random assignment did not yield any statistically significant impacts or any otherwise remarkable differences. Teens who were 18 or 19 at random assignment earned more during the follow-up period than their younger counterparts, even though employment rates were very similar for all three age groups. LEAP's impacts on employment and earnings were not statistically significant for any of the three age groups. They were also not statistically significant for either one of the two groups defined by age for grade status at random assignment.

LEAP's impacts did vary by AFDC case status for those not initially enrolled. Teens who were on their own case at random assignment experienced a statistically significant reduction of 0.49 quarters in the number of quarters in which they were employed, compared with a control group mean of 4.06. On the other hand, teens who did not have their own case at random assignment experienced an increase of 0.48 in the number of quarters employed, an impact that was not statistically significant. The difference between these two impacts was statistically significant. This pattern of impacts was reflected in the earnings measure as well, even though neither one of these impacts, nor the difference between them, was statistically significant.

Another substantial (and marginally significant) difference in program impacts appeared for the subgroup breakdown by ethnicity. Again, African-American teens had significantly lower levels of earnings despite similar employment levels. However, the program effects for the not initially enrolled teens show a pattern by ethnicity that is the reverse of that found for the initially enrolled teens. In this group, the African-American teens experienced positive program effects, especially on earnings (an increase of $511, not statistically significant). On the other hand, teens who were not African-American experienced negative program effects (a statistically significant earnings loss of $1,065). The difference between these two impacts was marginally significant (p = 0.100). This suggests that LEAP may have reached African-American dropouts more effectively than it did others who had already left school at the time of random assignment.

A potentially important determinant of LEAP's success with those not initially enrolled is the length of time these sample members had been out of school when the program reached them. In previous reports, it was hypothesized that those who had been out of school for shorter periods would have an easier time returning to school and would have better long-term outcomes and program impacts. Table 4.4 explores this issue by showing separate employment impacts for those who were out of school less than one year, one to less than two years, and two years or

more. There was no statistically significant difference between the impacts for these three groups, even though the group that was out for two years or more experienced impacts that appeared substantially worse than those for the other two groups. Partly, this may reflect an age effect, since those longest out of school also tended to be the oldest teens. However, the lack of statistical significance in this comparison suggests that time out of school was not a particularly powerful predictor of program success for teens who were not initially enrolled.

The table also includes impacts by prior employment status, which tell a compelling story, consistent with the findings for those initially enrolled. It appears that sample members who had no recent employment experience when they were randomly assigned experienced negative impacts on their earnings that were statistically significant (a loss of $883). On the other hand, those who had recent work experience experienced a positive impact (a gain of $1,306, not statistically significant). The difference between these two impacts was close to statistically significant, with a p-value of 0.108. Thus, LEAP had the best employment effects for teens who entered the study with some recent work experience, regardless of whether they were enrolled in school at random assignment or not.

C. Impacts by County

Program impacts on employment outcomes for individual counties showed a lot of variation, but this variation was not found to be statistically significant. Therefore, it is not possible to state with any confidence that any one county had better or worse employment impacts than the others. For reference, tables of employment impacts by county are included in this report as Appendix D.

It is of some concern that there was a lack of significant positive impacts for Cuyahoga County, which includes Cleveland and East Cleveland. An earlier report (Long et al., 1994) found that the effects of LEAP on school enrollment and attendance in Cleveland were substantial, partly as a result of enhancement of the LEAP program in some Cleveland high schools (as discussed in Chapter 1). These promising findings were reflected in school completion results (presented in Long et al., 1996, p. 56). Among four large urban areas (including Cincinnati, Cleveland/East Cleveland, Columbus, and Toledo), Cleveland was the only one in which impacts on high school graduation and GED receipt were found to be statistically significant, even though they were limited to teens who were initially enrolled. Analyses of employment impacts by county did not show concomitant improvements in employment impacts in Cuyahoga County.

Chapter 5

Impacts on AFDC Receipt

I. Introduction

This chapter presents the impacts of LEAP on the research sample's receipt of AFDC during years 3 and 4 of the follow-up period. The analyses are based on AFDC administrative data obtained from the Ohio Department of Human Services (ODHS). As discussed in Chapter 2, owing to a conversion of the ODHS data system that took place when the LEAP evaluation was already under way, reliable data on AFDC receipt were not available for the first part of the follow-up period. However, for the research sample featured in this report (those randomly assigned after mid-August 1990), data were available for the final two years of follow-up (years 3 and 4).

The fact that AFDC data were limited to the third and fourth years of follow-up has directed the focus of this chapter. While earlier reports and earlier chapters in this report documented the implementation of LEAP and the effects of bonuses and sanctions on sample members' AFDC income, this chapter is more concerned with longer-term program effects on AFDC outcomes. At the start of the third year of follow-up, which is the first year covered in this chapter, 49.5 percent of all sample members were at least 20 years old and thus no longer eligible for LEAP. By the end of the follow-up period, 86.6 percent of all sample members had aged out of the program. Therefore, the impacts shown in this chapter do not represent the effects of LEAP while people were in the program, but instead represent mostly longer-term post-program effects.

By trying to increase the education levels and graduation rates of teen parents on welfare, LEAP attempted to change long-term employment outcomes and patterns of welfare receipt for this population. Research has shown this to be a difficult task. Teen parents have been found to experience poor employment histories, long welfare spells, and persistent poverty. Education and training programs targeted at teen parents have generally had little success in improving employment outcomes and curtailing long-term welfare dependency (Quint, Bos, and Polit, 1997; Maynard, Nicholson, and Rangarajan, 1993; Granger, 1994). The question addressed in this chapter is to what extent LEAP managed to reduce welfare dependency, a finding that is especially relevant because LEAP is a broad-coverage, statewide program serving what is probably the largest group of teen parents ever included in a welfare reform evaluation.

Since the period when LEAP was implemented and the data for this evaluation were collected, the welfare environment has changed dramatically. The findings presented in this chapter may originate from the AFDC environment, as discussed in Chapter 1, but they hold important lessons for state programs operated under the 1996 federal welfare law. The impacts shown here represent the results of a real-life test of a broad-coverage program for teen parents

on welfare. Also, the patterns of welfare receipt among program group members and control group members provide a comprehensive picture of the actual welfare dynamics for a representative pool of teen parents on welfare. Other studies of teen welfare recipients have usually involved selected samples of volunteers or samples in a few cities or counties. The LEAP evaluation is unique in that it provides a comprehensive picture of a statewide sample of teen parents on welfare.

The structure of this chapter broadly mirrors that of the previous chapter, which presented impacts on employment outcomes. Section II describes outcomes for the control group, which form the basis from which to interpret any impacts of the LEAP program. Section III presents impacts for the research sample overall and by school enrollment status at baseline (random assignment), and Section IV presents impacts for subgroups defined by baseline characteristics. The chapter concludes with Section V, which links employment outcomes and AFDC receipt to explore patterns of combining work and welfare and to estimate impacts on a measure of cash income (AFDC and earnings combined).

II.   Welfare Outcomes for the Control Group

Figure 5.1 shows quarterly rates of AFDC receipt for LEAP control group members for quarters 9 through 16 (years 3 and 4) after random assignment. As previously mentioned, AFDC data for the first eight quarters of follow-up were not available for this analysis.

The figure contains two different measures of welfare receipt. For each of the eight follow-up quarters, the top graph shows the percentage of control group members who received AFDC. Note that the graph begins around the 80 percent mark (79.1 percent received AFDC in quarter 9), which already represents a significant drop from the time of random assignment, when all sample members were on AFDC. Thus, it appears that more than 20 percent of all teens in the control group had left AFDC on their own by the end of two years of follow-up (many would return, as shown later). Over the course of the two years covered by the follow-up data, the percentage of control group members receiving AFDC in each quarter continued to drop further, reaching 60.9 percent in quarter 16.

The bottom graph (the dashed line) in the figure is a cumulative measure of continuous welfare receipt. It shows the percentage of all teens in the control group who were off AFDC for an entire quarter from the beginning of quarter 9. In quarter 9, this was the case for 20.9 percent of all control group members, a share that increased to 58.7 percent by the end of quarter 16. Thus, by the end of the follow-up period, more than half of all control group members had left AFDC for at least three months in the prior two years. Both trends did not appear to be leveling off by the end of the follow-up period.

Figure 5.2 examines the distribution of the number of months of welfare received by LEAP control group members during the two-year follow-up period (quarters 9 through 16). Knowing this distribution is important for two reasons. First, it distinguishes different groups of sample members for whom the program may be expected to have different effects.

Figure 5.1

**Percentage of LEAP Control Group Members Who Received AFDC and Percentage
Who Ever Left AFDC Since Quarter 9 After Random Assignment**
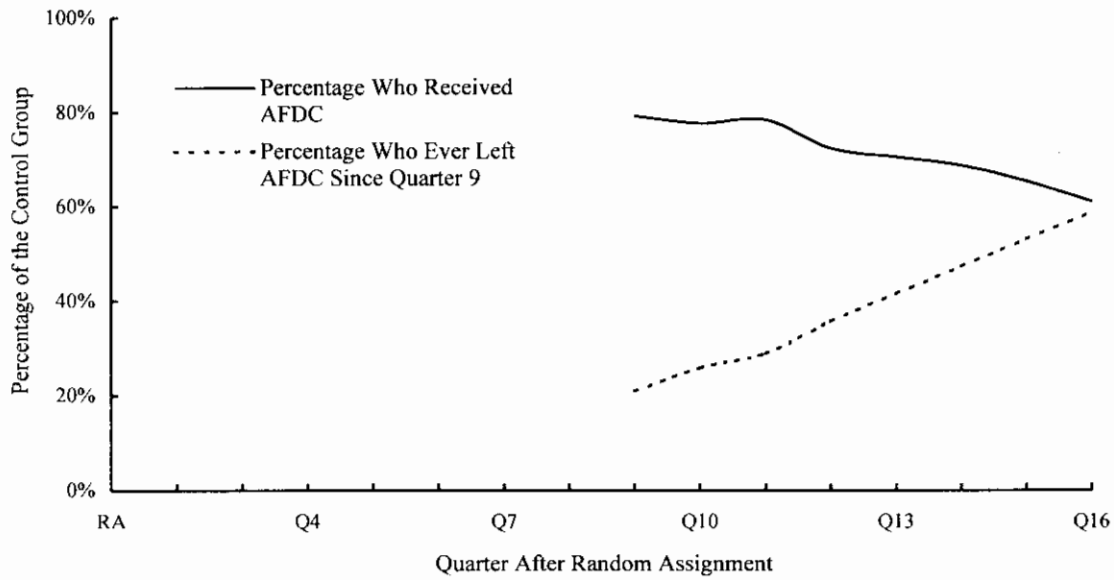
SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records.
See Appendix Table F.1 for data corresponding to the figure.

Figure 5.2

**Number of Months LEAP Control Group Members Received AFDC in
Years 3 and 4 (Quarters 9-16) After Random Assignment**

Number of Months of AFDC Receipt
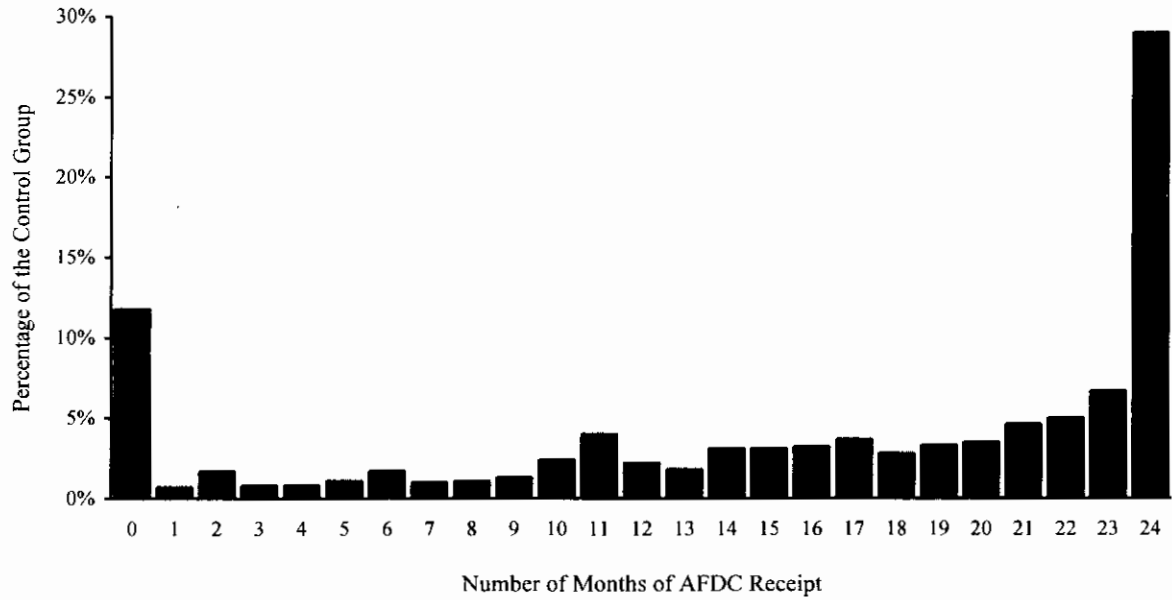
SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records. See
Appendix Table F.2 for data corresponding to the figure.

Second, it identifies those sample members who would be most strongly affected by a time limit if it were applied to them.[1] Figure 5.2 suggests that, in terms of the number of months on welfare, control group members can be divided into three groups. The first group, 11.8 percent of the control group, includes those who never received AFDC during years 3 and 4 of the follow-up period. This is the bar on the far left side of the figure. The second group (the bar on the far right) includes those who received AFDC in every one of the 24 months of the follow-up period (29.0 percent of the sample). The third group includes all those in between (59.6 percent), who, on average, received AFDC for 15.2 out of the 24 months of follow-up.

The intended welfare impacts of LEAP are necessarily limited to the second and third groups identified here. That is, some small proportion of teens subject to LEAP would have left welfare, regardless of their exposure to LEAP, and would have stayed off on their own, just like their counterparts in the control group. LEAP intended to move everyone else in Figure 5.2 toward the left side of the figure. In other words, for LEAP to have succeeded in reducing welfare receipt, it would have had to increase the proportion of teens on the left (receiving no welfare at all), reduce the proportion on the right (receiving welfare for the entire 24 months of follow-up), and/or reduce the average number of months during which those between these extremes received AFDC. In an environment in which time limits on welfare are a political reality, it is especially important for programs like LEAP to reduce the proportion of teenage welfare recipients who remain on welfare continuously for extended periods of time.

The previous chapter found that teens who were enrolled in high school or in a GED program at the time of random assignment (the "initially enrolled") had better employment outcomes than those who were not (the "not initially enrolled"). Figure 5.3 explores whether this distinction holds for AFDC outcomes as well. It shows rates of AFDC receipt for LEAP control group members for years 3 and 4 after random assignment. Interestingly, higher rates of employment among the initially enrolled teens apparently did not translate into lower rates of AFDC receipt. For all of the two-year follow-up period, control group members who were initially enrolled were *more* likely than those who were not initially enrolled to be receiving AFDC. Although the differences were modest, they were statistically significant in two of the eight quarters. This suggests that those who were initially enrolled may have been more likely to combine work and welfare (or may have worked part time while attending school and receiving AFDC), an issue that will be explored in more detail later in this chapter.

III.   Program Impacts on AFDC Receipt

Figure 5.4 repeats the distribution of months on AFDC shown in Figure 5.2, but adds data for the program group to provide an initial impression of LEAP's impacts on welfare outcomes. The figure suggests that LEAP did manage to move teens toward the left side of the distribution, mostly by increasing the number of teens who did not receive AFDC at all during the follow-up period, and by reducing the number who received AFDC in all 24 months of follow-up. In other

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[1]See Chapter 7, Section V, for information on this issue.

Figure 5.3

**Percentage of LEAP Control Group Members Who Received AFDC in
Years 3 and 4 (Quarters 9-16) After Random Assignment**
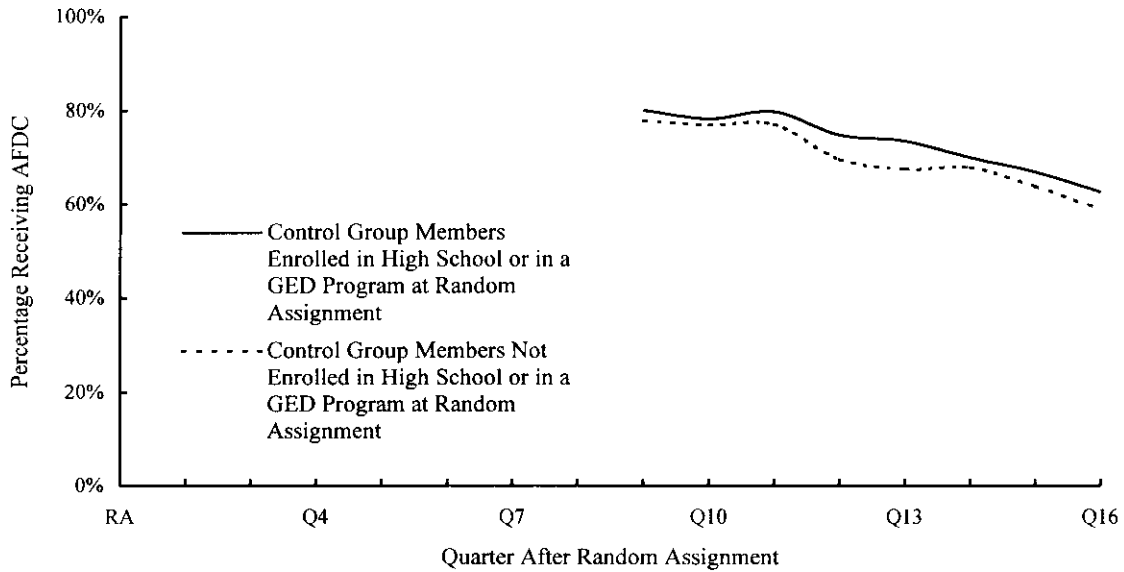
SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records. See Appendix Table F.3 for data corresponding to the figure.

NOTE: The percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment.

Figure 5.4

Number of Months the LEAP Research Sample Received AFDC in
Years 3 and 4 (Quarters 9-16) After Random Assignment
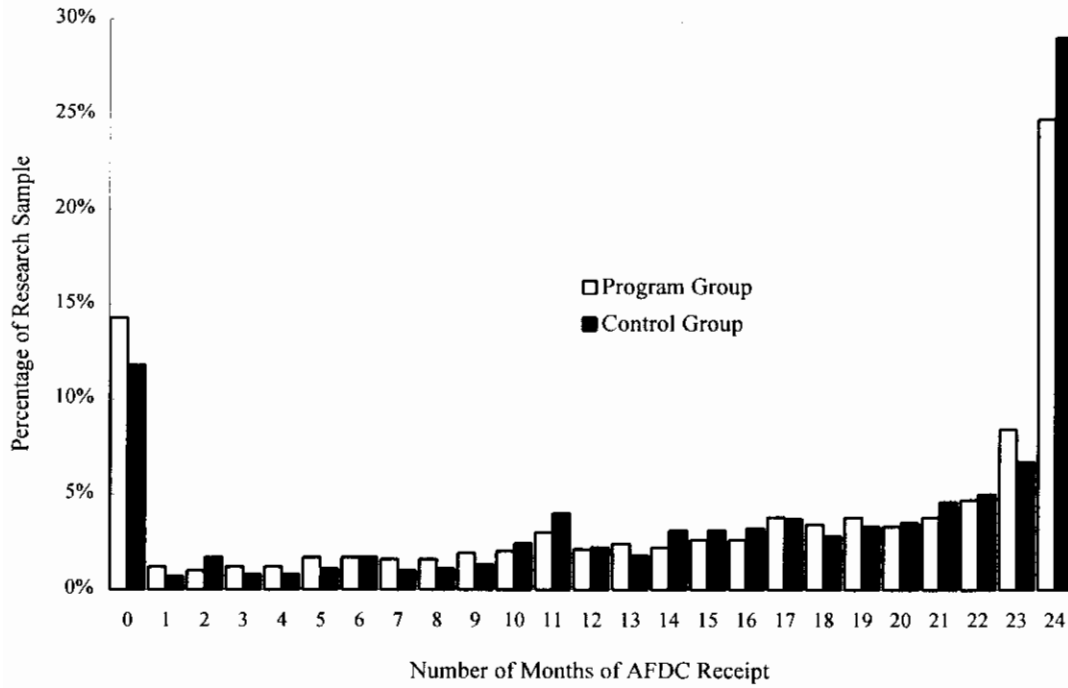
SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records. See Appendix Table F.4 for data corresponding to the figure.

words, as shown in the first pair of bars, a higher percentage of program group members (white bar) than control group members (black bar) received no welfare at all and, as shown in the last pair of bars, a lower percentage of program group members than control group members received welfare in all 24 months. It also appears, however, that these effects were modest and that a substantial share of teens in both research groups remained on welfare for the entire 24-month follow-up period.

A more complete picture of the AFDC impact story is provided by Table 5.1. The table shows statistically significant impacts on several different (but related) AFDC outcomes. It appears that LEAP caused a modest decrease in the percentage of teens who were ever on AFDC during the third and fourth years of follow-up. Of teens in the control group, 88.9 percent were ever on welfare during this period, compared with 86.0 percent of teens in the program group. The impact, 2.9 percentage points, was statistically significant. During some parts of the follow-up period, the program's effect on the rate of AFDC receipt was more pronounced. In the six-month period covering quarters 13 and 14, LEAP reduced the rate of welfare receipt by 5.1 percentage points, from 75.6 percent to 70.5 percent. This reduction is comparable to those achieved in welfare-to-work programs for adults (see, e.g., Riccio, Friedlander, and Freedman, 1994, p. 120). These impacts on rates of welfare receipt translated into an impact on the number of months during which sample members received welfare. The LEAP program reduced this outcome by three-fourths (0.76) of a month, from 16.0 months for control group members to 15.3 months for those in the program group.

In terms of the dollar value of AFDC benefits, the program achieved significant reductions during most of the available follow-up period. During years 3 and 4 combined, AFDC reductions totaled $275 for the average teen, or 5.0 percent of the control group mean of $5,459. In percentage terms, this impact is comparable to the impact on the number of months of AFDC receipt. This suggests that any reductions in AFDC benefits were the result of a reduction in the number of months that program group members received AFDC, as opposed to a reduction in the average monthly benefit amount. In turn, this implies that neither sanctions nor increases in the number of teens combining work and welfare were likely responsible for the reductions in the amount of AFDC received.

Table 5.2 presents AFDC impacts by school enrollment status at random assignment. The top panel shows impacts for the initially enrolled group (those who were already enrolled in high school or in a GED program at the time of random assignment), and the bottom panel shows impacts for those not initially enrolled. As discussed in the previous chapter, it appeared that employment impacts were generally limited to the initially enrolled group. Therefore, to the extent that welfare savings were directly related to improvements in employment outcomes, impacts on AFDC receipt should also have been concentrated among those initially enrolled. Table 5.2 tells a somewhat different story, however. It shows that both groups of sample members experienced modest welfare reductions, which, in most cases were of comparable size and statistically indistinguishable.[2] Unfortunately, splitting the sample into initially enrolled and

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[2]See Chapter 4 for a description of the statistical test used to compare impacts across subgroups.

Table 5.1

Table 5.1

LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16)

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value[a]
Ever received AFDC (%)					
Quarters 9-10	79.9	82.5	-2.6 *	-3.2	0.084
Quarters 11-12	75.7	80.5	-4.8 ***	-5.9	0.003
Quarters 13-14	70.5	75.6	-5.1 ***	-6.7	0.003
Quarters 15-16	67.8	69.2	-1.4	-2.1	0.414
Years 3 and 4	86.0	88.9	-2.9 **	-3.3	0.025
Ever received AFDC in quarter 16 (%)	61.5	60.9	0.6	1.1	0.724
Number of months on AFDC					
Years 3 and 4	15.27	16.03	-0.76 **	-4.7	0.018
AFDC amount received ($)					
Quarters 9-10	1,415	1,491	-76 **	-5.1	0.023
Quarters 11-12	1,347	1,445	-98 ***	-6.8	0.005
Quarters 13-14	1,235	1,299	-64 *	-4.9	0.073
Quarters 15-16	1,187	1,224	-37	-3.0	0.317
Year 3	2,763	2,936	-174 ***	-5.9	0.006
Year 4	2,422	2,523	-101	-4.0	0.132
Years 3 and 4	5,185	5,459	-275 **	-5.0	0.020
Sample size	3,479	672			

SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table 5.2

**LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16),
by Initial School Enrollment Status**

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value[a]
Sample Members Enrolled in High School or in a GED Program at Random Assignment					
Ever received AFDC (%)					
Quarters 9-10	80.9	83.0	-2.1	-2.5	0.307
Quarters 11-12	76.8	82.1	-5.3 **	-6.4	0.016
Quarters 13-14	72.3	77.0	-4.7 **	-6.1	0.044
Quarters 15-16	68.6	70.3	-1.7	-2.5	0.473
Years 3 and 4	87.0	89.4	-2.4	-2.6	0.184
Ever received AFDC in quarter 16 (%)	62.0	62.6	-0.6	-0.9	0.825
Number of months on AFDC					
Years 3 and 4	15.55	16.35	-0.80 *	-4.9	0.068
AFDC amount received ($)					
Quarters 9-10	1,411	1,479	-68	-4.6	0.132
Quarters 11-12	1,347	1,467	-120 **	-8.2	0.011
Quarters 13-14	1,241	1,317	-76	-5.8	0.118
Quarters 15-16	1,182	1,233	-52	-4.2	0.307
Years 3 and 4	5,181	5,497	-316 **	-5.7	0.049
Sample size	1,917	355			
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment					
Ever received AFDC (%)					
Quarters 9-10	78.3	81.5	-3.2	-3.9	0.154
Quarters 11-12	73.9	78.2	-4.2 *	-5.4	0.074
Quarters 13-14	67.9	73.6	-5.7 **	-7.7	0.023
Quarters 15-16	66.7	67.6	-0.9	-1.4	0.719
Years 3 and 4	84.5	88.0	-3.5 *	-4.0	0.068
Ever received AFDC in quarter 16 (%)	61.1	58.9	2.2	3.7	0.424
Number of months on AFDC					
Years 3 and 4	14.86	15.57	-0.71	-4.6	0.134
AFDC amount received ($)					
Quarters 9-10	1,416	1,498	-82 *	-5.5	0.093
Quarters 11-12	1,340	1,412	-72	-5.1	0.158
Quarters 13-14	1,224	1,274	-50	-4.0	0.337
Quarters 15-16	1,192	1,211	-19	-1.5	0.732
Years 3 and 4	5,172	5,395	-223	-4.1	0.198
Sample size	1,562	317			

(continued)

Table 5.2 (continued)

SOURCE: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

not initially enrolled groups reduced the sample sizes for the impact analyses to the point where many impacts of comparable size to those presented in Table 5.1 were no longer statistically significant (although many p-values shown in the last column of the table only slightly exceed 0.1, indicating that impacts were close to being statistically significant).

For those initially enrolled, LEAP reduced the average number of months of AFDC receipt by close to one month (0.80 months) out of 24, a statistically significant reduction of 4.9 percent. For those not initially enrolled, this reduction was 0.71 months, not quite statistically significant (p = 0.134). For both groups, these reductions were strongest in the middle of the two-year follow-up period, during quarters 11 through 14. These reductions in the number of teens receiving AFDC and the number of months during which they received it translated into lower AFDC payments. For the follow-up period as a whole, program group members who were initially enrolled received $316 (or 5.7 percent) less AFDC than their counterparts in the control group, and for those not initially enrolled, LEAP reduced AFDC payments by $223 (4.1 percent). The table shows that LEAP continued to reduce welfare receipt by teens who were not initially enrolled, despite its having been unable to improve their education outcomes (Chapter 3) or their employment outcomes (Chapter 4). It does not appear that these reductions were simply a continuation of LEAP's sanctions. By the beginning of year 3 of the follow-up period, the first year for which AFDC data were available, more than half of the program group members in the not initially enrolled group had already aged out of the LEAP program and were no longer subject to sanctions for noncompliance with LEAP's mandate to return to school. Also, most of the reductions in welfare receipt (for both the initially enrolled and the not initially enrolled) seem to have been the result of fewer months on AFDC rather than lower monthly AFDC payments, which would have been a sign of sanctions.

IV. Impacts on Welfare Receipt for Subgroups Defined by Characteristics at Random Assignment

Tables 5.3 and 5.4 show impacts on welfare outcomes for selected subgroups defined by baseline characteristics (characteristics at random assignment). As was the case in Chapter 4, these impacts were calculated separately for those initially enrolled and those not initially enrolled. (No subgroup impacts are presented for the two initial school enrollment groups combined because the baseline characteristics used to define the subgroups are strongly correlated with school enrollment status at baseline, so it would not be obvious whether apparent differences were the result of differences in school enrollment status or other factors.) In addition to these breakdowns by subgroup, impacts were estimated by county (the results are shown in Appendix F). The variation in impacts by county was not statistically significant, meaning that it is not possible to state with any confidence that any one county had better or worse welfare impacts than the other counties.

A. Subgroup Impacts for Those Initially Enrolled

For those initially enrolled, subgroup impacts on AFDC receipt varied significantly by age, AFDC case status, and age for grade status at baseline. The program's impact on the amount

Table 5.3

LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16) for Sample Members Enrolled in High School or in a GED Program at Random Assignment, by Subgroup

| Characteristic and Subgroup at Random Assignment | Sample Size | Number of Months on AFDC, Years 3 and 4 | | Within-Subgroup Impact | p [a] | Between-Subgroups Impact Difference [b] | p [a] |
		Program Group	Control Group				
Age at random assignment (years)						---	0.204
15-16	926	16.40	17.80	-1.40 **	0.037		
17	625	15.17	16.31	-1.14	0.153		
18-19	721	14.80	14.43	0.37	0.638		
Ethnicity						-0.44	0.630
Black	1,534	17.05	17.70	-0.65	0.217		
White, Hispanic, or other	699	12.32	13.41	-1.09	0.154		
Employment in year before random assignment						1.45	0.212
Employed	375	14.92	16.71	-1.79 *	0.089		
Not employed	1,808	15.79	16.13	-0.34	0.483		
Age for grade status at random assignment						1.72 *	0.064
At age for grade	1,627	15.54	16.93	-1.39 ***	0.008		
Not at age for grade	639	15.61	15.28	0.33	0.667		
AFDC case status at random assignment						-1.05	0.229
Own case	982	14.93	15.16	-0.23	0.731		
Not own case	1,290	16.01	17.29	-1.28 **	0.025		

(continued)

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Table 5.3 (continued)

Characteristic and Subgroup at Random Assignment	Sample Size	AFDC Amount Received, Years 3 and 4 ($)		Within-Subgroup Impact	p^a	Between-Subgroups Impact Difference^b	p^a
		Program Group	Control Group				
Age at random assignment (years)						--- *	0.078
15-16	926	5,543	6,139	-596 **	0.014		
17	625	4,987	5,438	-452	0.118		
18-19	721	4,900	4,679	221	0.439		
Ethnicity						104	0.756
Black	1,534	5,740	6,067	-327 *	0.084		
White, Hispanic, or other	699	3,989	4,212	-223	0.421		
Employment in year before random assignment						368	0.381
Employed	375	4,945	5,487	-542	0.155		
Not employed	1,808	5,283	5,456	-173	0.325		
Age for grade status at random assignment						412	0.221
At age for grade	1,627	5,145	5,600	-455 **	0.016		
Not at age for grade	639	5,293	5,335	-43	0.879		
AFDC case status at random assignment						-578 *	0.067
Own case	982	4,960	4,947	13	0.957		
Not own case	1,290	5,355	5,920	-565 ***	0.006		
Sample size	2,272	1,917	355				

(continued)

Table 5.3 (continued)

SOURCE: MDRC calculations using data from Teen Parent Information Sheets and Ohio Department of Human Services (ODHS) AFDC records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 2,272 sample members who were randomly assigned between mid-August 1990 and September 1991 and were enrolled in high school or in a GED program at random assignment, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for up to 38 kinds of differences in characteristics, other than the characteristics used to define subgroups, before random assignment. The two categories used as factors were research status (i.e., membership in the program or control group) and, one at a time, the baseline characteristics indicated. Rounding may cause slight discrepancies in sums and differences.

[a] A two-tailed t-test was applied to each within-subgroup impact. The statistical significance of differences in impacts across subgroups was tested with a t-test (when there were two subgroups) or an F-test (when there were more than two). The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

[b] For each characteristic with only two subgroups, the difference between subgroup impacts is the impact for the first subgroup less the impact for the second subgroup. For characteristics with more than two subgroups, no single difference between subgroup impacts can be calculated, as indicated by dashes in the table. However, it is possible to assess the statistical significance of variation across multiple subgroups, as indicated by the asterisks.

Table 5.4

LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16) for Sample Members Not Enrolled in High School or in a GED Program at Random Assignment, by Subgroup

Characteristic and Subgroup at Random Assignment	Sample Size	Number of Months on AFDC, Years 3 and 4		Within-Subgroup Impact	p^a	Between-Subgroups Impact Difference[b]	p^a
		Program Group	Control Group				
Age at random assignment (years)							
15-16	265	15.37	16.35	-0.98	0.444	---	0.465
17	424	14.40	16.02	-1.62	0.100		
18-19	1,190	14.91	15.12	-0.21	0.734		
Ethnicity							
Black	767	16.86	17.72	-0.86	0.249	0.44	0.658
White, Hispanic, or other	1,076	13.42	13.84	-0.42	0.521		
Employment in year before random assignment							
Employed	301	13.24	14.61	-1.37	0.290	1.20	0.389
Not employed	1,503	15.23	15.40	-0.17	0.761		
Age for grade status at random assignment							
At age for grade	568	15.12	15.72	-0.60	0.521	-0.13	0.905
Not at age for grade	1,309	14.74	15.47	-0.73	0.203		
Years out of school							
Less than 1	843	15.16	15.76	-0.60	0.405	---	0.825
1 to less than 2	593	14.83	15.21	-0.38	0.666		
3 or more	443	14.33	15.53	-1.20	0.242		
AFDC case status at random assignment							
Own case	1,419	14.92	15.21	-0.29	0.613	-1.43	0.192
Not own case	460	14.64	16.36	-1.72 *	0.062		

(continued)

Table 5.4 (continued)

Characteristic and Subgroup at Random Assignment	Sample Size	AFDC Amount Received, Years 3 and 4 ($)		Within-Subgroup Impact	p[a]	Between-Subgroups Impact Difference[b]	p[a]
		Program Group	Control Group				
Age at random assignment (years)						---	0.435
15-16	265	5,333	5,767	-435	0.360		
17	424	4,997	5,522	-525	0.153		
18-19	1,190	5,192	5,207	-15	0.949		
Ethnicity						94	0.800
Black	767	6,072	6,318	-247	0.377		
White, Hispanic, or other	1,076	4,502	4,654	-153	0.531		
Employment in year before random assignment						506	0.331
Employed	301	4,504	5,007	-503	0.296		
Not employed	1,503	5,311	5,308	3	0.989		
Age for grade status at random assignment						185	0.650
At age for grade	568	5,225	5,572	-347	0.317		
Not at age for grade	1,309	5,145	5,308	-162	0.447		
Years out of school						---	0.800
Less than 1	843	5,219	5,488	-268	0.318		
1 to less than 2	593	5,218	5,243	-24	0.941		
3 or more	443	5,007	5,323	-316	0.408		
AFDC case status at random assignment						-681 *	0.094
Own case	1,419	5,207	5,229	-22	0.919		
Not own case	460	5,029	5,731	-703 **	0.041		
Sample size	1,879	1,562	317				

(continued)

Table 5.4 (continued)

SOURCE: MDRC calculations using data from Teen Parent Information Sheets and Ohio Department of Human Services (ODHS) AFDC records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 1,879 sample members who were randomly assigned between mid-August 1990 and September 1991 and were not enrolled in high school or in a GED program at random assignment, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for up to 38 kinds of differences in characteristics, other than the characteristics used to define subgroups, before random assignment. The two categories used as factors were research status (i.e., membership in the program or control group) and, one at a time, the baseline characteristics indicated. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-subgroup impact. The statistical significance of differences in impacts across subgroups was tested with a t-test (when there were two subgroups) or an F-test (when there were more than two). The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

[b]For each characteristic with only two subgroups, the difference between subgroup impacts is the impact for the first subgroup less the impact for the second subgroup. For characteristics with more than two subgroups, no single difference between subgroup impacts can be calculated, as indicated by dashes in the table. However, it is possible to assess the statistical significance of variation across multiple subgroups, as indicated by the asterisks.

of AFDC received (the second panel of Table 5.3) was strongest for teens who were 15 or 16 at random assignment. For this group, LEAP reduced the amount of AFDC received during years 3 and 4 by $596 (or almost 10 percent). This effect was statistically significant, and significantly different from the impact for teens who were older, as shown by the asterisks on the impact estimate for the younger teens and the asterisks on the section showing the breakdown by age. Other notable impacts for subgroups defined by baseline characteristics include statistically significant reductions in the number of months on welfare and the amount of welfare received for teens who were not on their own case at baseline, and for teens who were at age for grade at random assignment. The latter group included many of the younger teens who experienced favorable AFDC and employment outcomes. LEAP had progressively weaker effects on welfare outcomes for teens who were over 16. These findings suggest that the program was most successful with initially enrolled teens who were young, were not behind in school, and had relatively little independence when they first entered the study (i.e., were more likely not to have their own AFDC case). In a way, this is counterintuitive, because the marginal effect of the program's bonuses and sanctions should have been greater for teens who were older because they were more likely to have their own household and their own welfare case and therefore would have experienced first-hand the impact of bonuses and sanctions on their monthly budget. On the other hand, Chapter 4 found that teens who were 18 or older and were initially enrolled started out with substantially higher earnings and better employment outcomes than younger teens. As a result, and partly because these teens were in the program for a shorter period of time, the program may have faced more of a challenge in improving their employment outcomes (and, indirectly, their welfare outcomes, too).

B. Subgroup Impacts for Those Not Initially Enrolled

Among sample members who were not enrolled in high school or in a GED program at random assignment, welfare impacts were concentrated among younger teens (17 or younger at random assignment) and among teens who did not have their own AFDC case when they entered the study. However, only for the latter breakdown was the difference in impacts between subgroups statistically significant. Nevertheless, the numbers are compelling, as shown in Table 5.4. Among not initially enrolled 17-year-olds, LEAP reduced the number of months on welfare by 1.6 months (out of 24). This 10.1 percent reduction (compared with the control mean) was very close to being statistically significant (p = 0.100), despite the relatively small size of this subgroup (only 424 sample members). As shown in the second panel of Table 5.4, this reduction in the number of months on AFDC translated into a dollar reduction of $525, or 9.5 percent, over the two-year follow-up period (p = 0.153, close to being statistically significant).

The second group for whom welfare impacts were substantial included sample members who did not have their own AFDC case at random assignment.[3] Again, LEAP did not affect welfare outcomes for those on their own AFDC case (even though, presumably, these teens

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[3]There is limited overlap between this group and the 17-year-olds. Of the 17-year-olds, 43.4 percent were not on their own case at random assignment, compared with 74.7 percent of younger teens who were not initially enrolled. Forty percent of those not on their own case were 17 at random assignment.

would have been affected most directly by bonuses and sanctions). It is possible that teens who lived on their own simply did not have the opportunity to return to school or seek employment, thereby limiting the potential effects of the LEAP program. The fact that more than three-fourths of the not initially enrolled group were on their own AFDC case at random assignment may explain why both employment and welfare impacts were limited for this group.

V.   Impacts on Cash Income and Combining Welfare with Work

By combining data from AFDC records with earnings data from Unemployment Insurance records, it is possible to create a measure of cash income. Doing so also identifies sample members who were combining work with welfare. Even if employed sample members did not earn enough to leave welfare altogether, it is possible that many combined work and welfare, gaining work experience and making a complete exit from welfare more likely. It is possible that LEAP, by increasing the educational attainment of teens in the program group, may have increased their opportunities to work while receiving AFDC. It is important to identify such an effect if it exists, because it could foreshadow more dramatic AFDC impacts in the long run.

Using a measure of cash income that combines AFDC and earnings, it is possible to assess whether LEAP's impacts on AFDC receipt were offset sufficiently by increased earnings to prevent teens from becoming worse off financially as a result of the program. Unfortunately, earnings and AFDC benefits do not together provide a complete picture of the income available to sample members. Other income sources, such as Food Stamps, earnings from a spouse or partner, and the Earned Income Tax Credit (EITC) may serve to offset changes in AFDC and earnings. Hence, the cash income measure used in this section is a very limited representation of the actual income situation of LEAP sample members.

The first panel of Table 5.5 shows program impacts on sample members' cash income in quarters 9 through 16. For the eight quarters covered by the table, LEAP had a negative impact of $345 on cash income, representing a reduction of 4.0 percent in this outcome (close to statistically significant, p = 0.115). Thus, it appears that reductions in the amount of welfare received by the average sample member were not completely offset by simultaneous increases in their earnings. It is possible that these reductions were offset by somewhat higher Food Stamp payments and the Earned Income Tax Credit, both of which were not measured in this evaluation.

Next, the table shows an impact estimate for the number of quarters in which sample members combined work covered by the Unemployment Insurance system with welfare. This situation was not very common. On average, control group members received both AFDC and earnings in 1.74 quarters (out of 8), whereas teens subject to LEAP did so for 1.62 quarters. The difference was not statistically significant.

The last panel of Table 5.5 breaks down the sample into four groups, based on their income sources during quarter 16, the last quarter of the follow-up period. The table distinguishes (1) those with earnings but no AFDC, (2) those with AFDC but no earnings, (3) those

Table 5.5

**LEAP's Impacts on Cash Income and Access to Different Income Sources
in Years 3 and 4 (Quarters 9-16)**

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value[a]
Total cash income from AFDC and earnings ($)					
Quarters 9-10	2,018	2,081	-63	-3.0	0.268
Quarters 11-12	2,055	2,175	-120 *	-5.5	0.061
Quarters 13-14	2,082	2,130	-48	-2.3	0.479
Quarters 15-16	2,193	2,307	-114	-5.0	0.128
Years 3 and 4	8,348	8,693	-345	-4.0	0.115
Number of quarters combining AFDC and earnings					
Years 3 and 4	1.62	1.74	-0.11	-6.5	0.126
Income sources in quarter 16 (%)					
Earnings only	18.1	17.5	0.6	3.6	0.661
AFDC only	39.7	39.0	0.7	1.9	0.695
Both	21.8	21.9	-0.1	-0.4	0.956
Neither	20.4	21.6	-1.3	-5.9	0.405
Sample size	3,479	672			

SOURCES: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records and Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC records for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

with both income sources, and (4) those with neither. It appears that LEAP did not affect this distribution. Among teens subject to LEAP, 18.1 percent received cash income only from earnings during quarter 16, compared with 17.5 percent of their counterparts in the control group. More than twice as many sample members (39.7 percent and 39.0 percent of program group members and control group members, respectively) received cash income only from AFDC during this quarter. About one out of five sample members (21.8 percent of program group members and 21.9 percent of control group members) combined cash income from employment and welfare. Finally, 20.4 percent of those subject to LEAP and 21.6 percent of control group members had no income from AFDC and no income from earnings during quarter 16. None of these differences was statistically significant. The relatively large size of the last group of sample members (those with neither earnings nor AFDC payments) is notable, both from a substantive and analytical point of view. These numbers suggest that one out of five sample members had no individual source of cash income (except, perhaps, unreported earnings). These sample members may have been supported entirely by their parents or by a husband or partner.[4] From an analytical point of view, these numbers may signal possible data problems because they may represent the effects of matching errors, as discussed in Chapter 2.

Table 5.6 presents impacts on cash income and the incidence of different income sources separately for the initially enrolled and not initially enrolled groups. Some interesting patterns emerge from this table. First, it appears that the significant loss of cash income by those subject to LEAP was entirely concentrated among teens who were not initially enrolled. None of the impacts for the initially enrolled group (shown in the first panel) were statistically significant. LEAP did not increase or reduce their cash income; reductions in AFDC benefits were apparently sufficiently offset by earnings gains.

The second panel tells a very different story. As a result of LEAP, teens who were not initially enrolled lost a total of $586 during years 3 and 4 of the follow-up period, which represented 6.8 percent of the corresponding control group mean of $8,580. The greatest six-month loss occurred in quarters 15 and 16 (the last six months of follow-up), during which time the program reduced cash income for the not initially enrolled by $205, or 8.9 percent.

Table 5.6 also includes impacts on the number of quarters during which sample members combined AFDC and earnings, and on the incidence of different income sources during the last quarter of follow-up (quarter 16). LEAP significantly reduced the number of quarters during which not initially enrolled sample members combined AFDC with earnings (a reduction from 1.62 to 1.39 quarters). The program also caused a statistically significant increase in the percentage of not initially enrolled teens who received only AFDC (and no earnings) during quarter 16 (an increase from 37.8 percent to 42.8 percent). Therefore, even though some of the income losses for the not initially enrolled group may have been due to AFDC reductions, it seems as if negative employment effects played a role as well.

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[4]Many teens were found to have married during the three-year follow-up period covered by survey data: 8.9 percent reported at the time of the three-year interview that they were married, compared with 4.4 percent at the time of random assignment. No data were available on cohabitation without marriage or other relationships that might have involved sharing resources. (See Long et al., 1996, pp. 20, 83.)

Table 5.6

**LEAP's Impacts on Cash Income and Access to Different Income Sources
in Years 3 and 4 (Quarters 9-16), by Initial School Enrollment Status**

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value[a]

Sample Members Enrolled in High School or in a GED Program at Random Assignment

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value
Total cash income from AFDC and earnings ($)					
Quarters 9-10	2,090	2,092	-2	-0.1	0.982
Quarters 11-12	2,133	2,196	-63	-2.9	0.468
Quarters 13-14	2,152	2,163	-11	-0.5	0.905
Quarters 15-16	2,285	2,310	-25	-1.1	0.804
Years 3 and 4	8,660	8,761	-101	-1.2	0.734
Number of quarters combining AFDC and earnings					
Years 3 and 4	1.81	1.83	-0.02	-1.1	0.869
Income sources in quarter 16 (%)					
Earnings only	19.7	18.2	1.5	8.5	0.437
AFDC only	37.2	39.9	-2.7	-6.8	0.285
Both	24.9	22.7	2.2	9.6	0.311
Neither	18.2	19.2	-1.0	-5.1	0.639
Sample size	1,917	355			

Sample Members Not Enrolled in High School or in a GED Program at Random Assignment

Outcome and Period After Random Assignment	Program Group	Control Group	Difference	Percentage Change	p-value
Total cash income from AFDC and earnings ($)					
Quarters 9-10	1,935	2,057	-122	-5.9	0.145
Quarters 11-12	1,964	2,140	-175 *	-8.2	0.062
Quarters 13-14	2,008	2,092	-84	-4.0	0.399
Quarters 15-16	2,086	2,291	-205 *	-8.9	0.064
Years 3 and 4	7,994	8,580	-586 *	-6.8	0.069
Number of quarters combining AFDC and earnings					
Years 3 and 4	1.39	1.62	-0.23 **	-14.2	0.038
Income sources in quarter 16 (%)					
Earnings only	16.4	16.7	-0.3	-1.8	0.889
AFDC only	42.8	37.8	5.0 *	13.2	0.070
Both	18.2	21.1	-2.8	-13.5	0.221
Neither	22.5	24.4	-1.9	-7.6	0.412
Sample size	1,562	317			

(continued)

Table 5.6 (continued)

SOURCES: MDRC calculations from Ohio Department of Human Services (ODHS) AFDC records and Ohio Unemployment Insurance (UI) earnings records.

NOTES: For each individual sample member, the follow-up period started with the quarter in which the teen was randomly assigned. Therefore, quarter 1 is the three-month period starting with the first month of the calendar quarter in which the sample member was randomly assigned.

Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC records for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Thus, in summary, LEAP achieved a modest reduction of $275 in the amount of AFDC received by the average sample member during years 3 and 4 of the follow-up period. This reduction was the result of lower average rates of AFDC receipt. It appears to have been unrelated to sanctions or to grant reductions experienced by those combining welfare and work. Although AFDC impacts were stronger for teens who were initially enrolled, they were not limited to this group. The not initially enrolled group also experienced AFDC impacts. AFDC losses were offset by earnings gains only for those initially enrolled. For the other group, reductions in AFDC receipt translated directly into reductions in cash income.

Chapter 6

Benefit-Cost Analysis

I.   Introduction

This chapter presents LEAP's costs and then compares them to its benefits in order to answer several questions. From the LEAP teens' perspective, were the teens better off financially as a result of the program? From the perspective of the Ohio Department of Human Services (ODHS), how much did AFDC reductions and other savings offset the program's costs? Going a step further, what is the financial impact on taxpayers when items such as the additional education costs LEAP generated and tax payments resulting from the program's impacts on employment are included in the calculations? Finally, a summary measure combines the teens' perspective and the taxpayer perspective and asks if society as a whole benefits (the "social perspective"). The study uses a four-year time frame from the time each teen entered the study (i.e., was randomly assigned) and presents the costs and benefits of the program during that period.

As discussed at the beginning of Chapter 2, this analysis compares LEAP's "net" costs and benefits — the costs and benefits per teen in LEAP (the program group) minus the costs and benefits that would have accrued per teen in the absence of LEAP (represented by the control group). The cost of incentives (bonuses minus sanctions) is included in the net cost per LEAP teen. The analysis uses the earnings and AFDC impacts presented in Chapters 4 and 5, and the same sample of 4,151 teens (the "research sample") who were randomly assigned from August 20, 1990, through September 1991, and who experienced LEAP after it had been operating for a year and was thus a more mature program than it had been at the outset. The results of the benefit-cost analysis are representative of the cost-effectiveness of the LEAP program statewide because about two-thirds of the LEAP caseload resided in the 12 counties in the evaluation.

The chapter is organized as follows. Section II explains the analytical approach used in the benefit-cost analysis. Section III — the cost analysis — begins by estimating the net cost of LEAP's program components and then calculates the net cost of LEAP per teen to ODHS. Next, the net cost of education and other indirect costs of LEAP are included to arrive at the program's total net cost. Finally, the section examines the net cost per teen for two key subgroups, those initially enrolled in school at random assignment and those not initially enrolled. Section IV focuses on the program's net benefits. Section V presents the benefit-cost results for the research sample from four different perspectives. The future monetary effects of LEAP are considered in Section VI. Some of the nonquantifiable effects of LEAP are discussed in Section VII. Section VIII is the conclusion.

II.   Analytical Approach[1]

The benefit-cost analysis places dollar values on the program's effects and its use of resources. It includes the measured effects on earnings and AFDC payments, as well as imputed effects on fringe benefits, state and federal taxes, Food Stamps, Medicaid payments, and the costs of administering transfer programs (i.e., AFDC, Food Stamps, and Medicaid). The analysis uses earnings and AFDC payment records in combination with transfer payment eligibility rules (covering AFDC, Food Stamps, and Medicaid), tax regulations, published data from state and federal agencies, and other sources to calculate imputed values.

A.   Accounting Methods

As noted above, the benefit-cost estimates presented in this chapter cover four years (starting with each sample member's quarter of random assignment, for benefits, and month of random assignment, for costs). Earnings and AFDC data were available for only part of the four-year period. As discussed in Chapter 2, earnings data — i.e., quarterly data from Ohio's Unemployment Insurance — (UI) system — were available for quarters 3 through 16 (three and a half years of data); quarter 1 was excluded from the analysis, and quarter 2 was estimated based on quarter 3.[2] As also discussed in Chapter 2, AFDC payments data were available (from ODHS AFDC records) for quarters 9 through 16; for this benefit-cost analysis, AFDC payments were imputed for quarters 1 through 8.[3]

As also noted above, the main findings of the analysis are expressed in terms of *net cost and net benefits per program group member*. "Net" means that the amounts represent differences between program and control group members, just as impacts do. To measure the effectiveness of a program, net benefits and net cost are first expressed in "present" dollars (the value in 1991 dollars of monetary effects that occur in later years); then the difference between net benefits and net cost is calculated, producing an estimate of the net gain or loss. This measure of overall program effectiveness is referred to as *net present value*.

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[1]The benefit-cost analytical approach used in the LEAP evaluation employed the methodology used in previous MDRC evaluations. Many of the techniques were originally developed for the evaluations of state programs in MDRC's Demonstration of State Work/Welfare Initiatives. (See Long and Knox, 1985, for additional information.) The manner in which this chapter presents results draws heavily upon Riccio, Friedlander, and Freedman, 1994, the final report from MDRC's evaluation of California's Greater Avenues for Independence (GAIN) Program.

[2]Quarter 2 earnings were assumed to be the same as those for quarter 3. For quarter 1, the analysis assumed an impact of zero dollars on earnings because the first quarter (by definition) was the quarter of random assignment; any impact that did occur could have preceded random assignment (i.e., occurred earlier in quarter 1 than the date of random assignment) and thus was properly excluded from the analysis.

[3]To estimate program effects on four-year AFDC payments, AFDC amounts for quarters 1 through 8 were imputed as follows: In quarter 1, all research sample members were assumed to be receiving AFDC, since only teens on AFDC were eligible for LEAP. The mean percentages on AFDC in quarters 2 through 8 were estimated separately for the program group and the control group, using straight-line imputation from quarter 1 (100 percent) to quarter 9. The imputed total benefit amounts were not adjusted for receipt of bonuses and sanctions because universal data on these grant adjustments were not available for the first two years of follow-up. Since the cost study showed that bonuses and sanctions basically offset each other for the program group as a whole, the effect of not making this adjustment is minor.

In a program such as LEAP, most costs are incurred during the teen's period of eligibility, whereas many potential benefits (e.g., earnings gains and welfare savings) are realized in later years. Therefore, simply comparing the nominal dollar value of program costs and benefits would be problematic. The value of a dollar is greater in the present than in the future: A dollar available today (to teens, ODHS, or taxpayers) can be invested and produce income over time, making it worth more than a dollar available in the future. Thus, to make a fair comparison between costs and benefits, it is essential to focus on their value at a common point in time, which in this study is 1991.

The benefit-cost analysis addresses this issue by discounting, i.e., by adjusting the value of benefits and costs accruing after the "base" period in which the bulk of the program investment was made, to reflect their lower value in terms of *the time when program costs were incurred* (i.e., the "investment period"). In effect, an estimated amount of investment income forgone must be subtracted from the nominal value of the benefits occurring after the investment period.[4]

This analysis used 1991 as the base year for the investment period because all members of the research sample entered LEAP or the control group by the end of September of that year, and many of the costs of LEAP for this sample occurred during 1991. Also, by 1991, the LEAP program was in its third year of operation and was functioning more smoothly. The benefits are expressed in 1991 dollars to make them comparable to the costs. Any gains that accrued later were discounted at the real rate of 5 percent annually.

B. Analytical Perspectives

Once estimated, particular net benefits and net costs will constitute gains or losses, or be irrelevant, depending on which analytical perspective — that of the research sample, the ODHS budget, taxpayers, or society as a whole — is considered. The *research sample (LEAP teens) perspective* identifies net gains or losses for members of the program group, indicating how they fared as a result of the program.[5] Earnings impacts and program bonus payments represent gains for the research sample, while reductions in AFDC (whether from sanctions or departures from AFDC) and other transfers represent losses.[6] Higher taxes paid by program group members compared with control group members also constitute losses to the research sample. Thus, LEAP produces a net gain from the standpoint of the research sample if program group members' earnings gains and bonus payments exceed the value of reductions in their transfer payments and higher taxes they

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[4]Put differently, a benefit occurring at time 2 has the same value as a smaller benefit occurring at time 1 *plus return on investment*; thus, subtracting the investment income from the time 2 benefit yields its value at time 1.

[5]The analysis does not take into consideration any effect LEAP may have had on any "off the books" earnings of program group members, nor does it consider the program's effects on unmeasured expenses the teens may have incurred.

[6]In this analysis, net increases in payments to program group members for support services (child care and transportation) are *not* considered to be gains from the perspective of the research sample. These payments simply offset child care and transportation costs to program group members resulting from LEAP's school attendance requirements. The analysis does, however, include these payments as costs incurred from the ODHS budget and taxpayer perspectives.

paid (relative to the control group).[7] The cost of LEAP had no direct effect on program group members' income and is not considered a net gain or loss from the perspective of the research sample. Similarly, any budgetary savings in administering transfer programs had no direct effect on the research sample.

The *ODHS budget perspective* identifies net gains and losses experienced by the welfare department at both the state and county levels. Net gains to the ODHS budget occur through savings in transfer payments and their related administrative costs. The ODHS budget comes out ahead to the extent that these savings exceeded the direct cost of providing the LEAP program. In and of themselves, program group members' earnings gains do not affect the calculations of net gains or losses from the standpoint of the ODHS budget.

The *taxpayer perspective* identifies benefits and costs from the standpoint of everyone in society other than individuals in the research sample.[8] Net gains to taxpayers occur through savings in transfer payments and their related administrative costs, through higher taxes paid by program groups members compared with control group members, and through net savings in the costs of operating non-LEAP programs in which LEAP teens enrolled less often than control group members. The taxpayer perspective shows a net gain to the extent that tax increases (expected to result from earnings gains)[9] and savings in transfer payments and administrative costs exceed the net cost of LEAP and non-LEAP activities. As with the ODHS budget perspective, program group members' earning gains were excluded from the calculation of net gains and losses.[10] Unlike the case with the ODHS perspective, however, the indirect costs of education, resulting from LEAP's impact on school and GED program enrollment, were taken into account.

This analysis assumed that no "displacement" occurred as a result of employment gains by program group members, i.e., that employment gains for program group members were not at the expense of other workers, but instead represented an increase in the total level of employment and value of output. Alternatively, one could have assumed that at least a portion of program group members' employment gains (and earnings increases) occurred because program group members took jobs that would have gone to other members of society, leaving those individuals unemployed

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[7]It follows that one program may produce higher earnings gains than another, but that the latter may still show more positive benefit-cost results from the standpoint of the research sample. This will be the case if the second program produces smaller welfare reductions and increases in tax payments than the first. See, e.g., a comparison of earnings gains and AFDC reductions recorded by the San Diego SWIM and Baltimore Options programs (Friedlander and Gueron, 1992, pp. 24–33). In other words, a program produces a net gain from the standpoint of the research sample if program group members' total estimated income (the sum of earnings and transfer payments, plus the Earned Income Tax Credit, minus taxes) exceeds that of control group members.

[8]The term "taxpayer" is used for convenience and for the sake of consistency between this analysis and previous benefit-cost analyses. It should be noted that members of the program group paid sales taxes, and that many paid income and Social Security taxes as well.

[9]Employer contributions to Social Security and Medicare taxes are excluded from the net gain or loss from the taxpayer perspective because employers are assumed to be taxpayers.

[10]In some MDRC evaluations that included unpaid work experience, the net gain or loss from output that program group members produced was also included. In this analysis, the output effect was not estimated because unpaid work experience was used by approximately the same small percentage of teens in both the program group and the control group.

and possibly causing some of them to use government transfer programs. To the extent that this occurred, it would reduce the program's overall return for taxpayers.

As suggested by the above discussion, the results from the perspectives of the research sample, the ODHS budget, and taxpayers may or may not be consistent. One group's gains may appear as another group's losses. Table 6.1 helps to illustrate this point. Here, a reduction in AFDC use would translate into a loss for the research sample and a corresponding gain for the ODHS budget and taxpayers.[11] However, an increase in earnings would reflect a gain for the research sample, but not for the ODHS budget or taxpayers — although taxes paid by the teens on those earnings would be a gain for taxpayers. The net cost of publicly funded employment-related services (e.g., vocational training), in contrast, would be a loss from the taxpayer perspective, while leaving the research sample unaffected.

A program for teen parents receiving AFDC might produce net gains from the research sample, ODHS budget, *and* taxpayer perspectives simultaneously, or net losses from all three perspectives.[12] When the results are mixed (i.e., positive from some perspectives but not from others), it may be more difficult to assess the program's merits. It is important to look at the societal perspective (considered below) to see whether or not there was an overall net gain or net loss. However, when results are mixed, the importance attached to one perspective or another may matter greatly. For example, some people will view as successful a program that increases the income of teen parents receiving welfare, even if taxpayers realize a net financial loss, offset by nonmonetary benefits such as better-educated citizens. Others may judge a program as successful only if it produces budgetary savings. Such judgments are not considered in this analysis.[13]

The final perspective, *the perspective of society as a whole*, combines the perspectives of the research sample and taxpayers. For a given component, there is considered to be a net gain to society if both groups gain or if the gain to one group exceeds the loss to the other group. For example, earnings gains for program group members represent a gain to the research sample without affecting taxpayers; thus, they are counted as a net gain to society. Net losses to society occur when what is a loss from one perspective is not a benefit from another. For example, the net costs of services represent a loss to the taxpayers but do not affect teen welfare recipients. Program effects that constitute a net gain from one perspective but the same size net loss from another (such

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[11]Table 6.1 also includes the *government budget perspective*, which, in this benefit-cost analysis, is almost identical to the taxpayer perspective. The only difference is the treatment of payroll taxes: The taxpayer perspective excludes the employer portion of Social Security and Medicare payroll taxes (because employers are taxpayers), whereas the government budget includes both the employer and employee portions of these taxes. In this analysis, net gains and losses are presented from the taxpayer perspective but not from the government budget perspective.

[12]There will be net gains from all three perspectives when earnings gains exceed the reductions in transfer payments and increases in taxes (a net gain from the perspective of the research sample), *and* the reductions in transfer payments and administrative costs, combined with increased tax revenues, exceed the total net cost of providing the LEAP program (a net gain from the perspectives of taxpayers and the ODHS budget). It is also possible for a program to produce net losses from all three perspectives (e.g., when welfare savings plus tax increases exceed earnings gains, but net costs are higher still).

[13]See Gramlich, 1990, for a discussion of questions concerning distribution of income that arise when a project outcome has gains and losses.

Table 6.1

Theoretical Value of Components of the LEAP Benefit-Cost Analysis,
by Accounting Perspective

Component	Accounting Perspective				
	Research Sample	ODHS Budget[a]	Government Budget	Taxpayer	Society
Increased earnings and fringe benefits	+	0	0	0	+
Increased tax payments					
Payroll taxes	−	+	+	+	0
Income and sales taxes	−	+	+	+	0
Reduced use of transfer programs					
AFDC payments	−	+	+	+	0
Food Stamp payments	−	+	+	+	0
Medicaid payments	−	+	+	+	0
Payments from other public programs	−	+	+	+	0
AFDC administrative costs	0	+	+	+	+
Food Stamp administrative costs	0	+	+	+	+
Medicaid administrative costs	0	+	+	+	+
LEAP's incentives (the net monetary effect of bonuses and sanctions)	?	?	?	?	?
Increased use of other programs					
Education					
High schools	0	0	−	−	−
GED programs	0	0	−	−	−
Vocational training	0	0	−	−	−
College	0	0	−	−	−
Other employment-related activities	0	0	−	−	−
Value of education not reflected in earnings	+	0	0	0	+
Preference for work over welfare	+	0	0	0	+
Foregone personal and family activities	−	0	0	0	−

NOTES: The components are shown as an expected benefit (+), cost (-), or neither a benefit nor a cost (0), according to a priori expectations regarding their value. Because it was unclear at the outset whether the number of bonuses would exceed the number of sanctions (or vice versa), no a priori valuation was placed on the incentives (as indicated by the question marks in that row of the table).

    [a]The ODHS budget perspective covers the *direct* benefits and costs of providing the LEAP program, not the indirect costs of LEAP — primarily the increased costs of LEAP's impacts on enrollment in high school or GED programs.

as AFDC savings) have no financial consequences from the societal perspective — these effects, which represent a *transfer* from one group in society to another, simply cancel each other out. Thus, from the standpoint of society, a teen program such as LEAP would be judged successful in benefit-cost terms if it produced earnings gains for the research sample, savings in transfer payment administrative costs (these do not affect teen welfare recipients), and any savings in operating other programs that together exceed the total net cost of LEAP (including both direct and indirect costs). It should be noted that, when adopting the societal perspective, one assumes that the "value," or importance, of a dollar lost by one group is equivalent to that of a dollar gained by another group, which may or may not be a valid assumption.

C. Limitations of the Analysis

Some limits on the comprehensiveness of the benefit-cost analysis should also be recognized. In addition to the fact (already noted) that the estimates presented below do not take into account possible displacement of other workers by any increased employment by program group members, they do not include the value of the clear, but difficult-to-monetize, benefits associated with society's preference for high school graduation or GED receipt over an incomplete secondary education (beyond what is captured by wages paid in the labor market), and for work over welfare. Also, they do not place a dollar value on the forgone time spent at home with a young child that is replaced by working, or the benefits of education that are not reflected in earnings, i.e., additional education may enhance the teens' quality of life and make them more aware citizens. As is typical in benefit-cost analyses, certain effects cannot be quantified, and long-run effects cannot be gauged precisely. Also, the analysis does not estimate benefits or costs beyond four years, so any future earnings gains or decreases in transfer payments are not included in the analysis.

III.   The Cost Analysis

Ohio's LEAP program is state-funded, but county-administered. This analysis uses the terms "ODHS" (Ohio Department of Human Services) or "ODHS budget" to refer to all direct expenditures for LEAP at both the state and county levels. Figure 6.1 illustrates the main expenditure components for both the program group and the control group. For the program group, box 1P shows the LEAP expenditures *by ODHS*.[14] LEAP expenditures by ODHS for control group members consisted solely of child care expenditures (box 1C).[15] The *net cost* of the LEAP program,

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[14]The cost analysis calculates program group costs starting with each teen's month of random assignment to LEAP. The study excludes any expenditures associated with ODHS's efforts to identify eligible teens and notify them of an initial assessment appointment. Also excluded from the analysis are any sanction-related costs (or savings) that occurred prior to random assignment, owing to teens' noncooperation with the initial assessment appointment. Furthermore, an additional estimated $130,000 in foundation grants was spent on enhanced LEAP services for Cleveland teens (see Long, Wood, and Kopp, 1994) during 1991, but these expenditures are not captured by the cost analysis.

[15]The cost analysis excludes the research-related expenditures for the initial assessment of eligibility and random assignment of control group members. Control group members did not receive a full LEAP orientation. Instead, they were debriefed and sent home, while those in the program group continued with the assessment. Control group members' sanctioning costs (or savings) are also excluded.

Figure 6.1

Main Components of the Total Net Cost of LEAP

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        ┌──────────────┐                              ┌──────────────┐
        │ Program Group│                              │ Control Group│
        └──────────────┘                              └──────────────┘

 1P  LEAP costs per                         1C  LEAP costs per control
     program group member:                      group member:
     expenditures by ODHS                        expenditures by ODHS
     for case management/                        for child care only
     county administrative
     cost, state
     administration,
     incentives (bonuses
     minus sanctions),
     transportation, and child
     care

              2  Net LEAP Cost to ODHS

                 Difference =
                 Net Cost per Program Group Member

                 ( 2 )  =  ( 1P )  −  ( 1C )


 3P  Non-LEAP costs per program group     3C  Non-LEAP costs per control group
     member: expenditures by non-ODHS         member: expenditures by non-ODHS
     agencies for high school education,      agencies for high school education,
     GED programs, post-secondary             GED programs, post-secondary
     education, and employment-related        education, and employment-related
     activities                               activities

                         plus

              4  Net Non-LEAP Cost

                 Difference =
                 Net Cost per Program Group Member

                 ( 4 )  =  ( 3P )  −  ( 3C )


                         equals

              5  Total Net Cost per Program Group Member

                 ( 5 )  =  ( 2 )  +  ( 4 )
```

i.e., the cost to ODHS per program group member over and above the cost per control group member is represented in Figure 6.1 by box 2. The net cost is obtained by subtracting the total LEAP cost per control group member from the total LEAP cost per program group member.

In addition, LEAP teens (and teens in the control group) incurred costs for education and employment-related training that were not paid for by ODHS. These costs are referred to as "non-LEAP" costs. The non-LEAP costs are included in the cost analysis because the LEAP program may have increased (or decreased) the use of these activities by the program group compared with the control group. The net non-LEAP cost (box 4) was calculated by subtracting the non-LEAP control group costs (box 3C) from the non-LEAP program group costs (box 3P) for similar activities. The sum of the net non-LEAP cost and the net LEAP cost is the total net cost per program group member (box 5).

A. The Average Cost of LEAP per Program Group Member (Figure 6.1, Box 1P)

As shown in Table 6.2 (column A of the first panel), the average LEAP cost per program group member was $1,573, which includes $134 for transportation and $258 for LEAP child care. Because control group members were also eligible for LEAP child care, there was an average LEAP cost per control group member of $185 (column B of the first panel).

Case management/county administrative cost. Because bonuses and sanctions essentially canceled each other out, the case management/county administrative cost was found to be the most expensive component of the LEAP program. This cost category includes all program-related activities on behalf of LEAP teens:[16] orientation, initial and yearly assessments, referrals for child care, providing transportation stipends, monitoring school enrollment and attendance, and arranging for bonuses and sanctions. In addition, case managers frequently offered guidance in their ongoing contact with teens.

The case management/county administrative cost per LEAP teen was obtained by first estimating a unit cost (i.e., the average operating cost per program group member per month in LEAP) and then multiplying this cost by the average number of months in the LEAP program. (To determine the operating unit cost, the average monthly LEAP expenditures for a specified period of time were divided by the average monthly caseload of LEAP teens for the same period.) The LEAP expenditures were taken from the monthly reconciliation reports of ODHS for calendar year 1991. The LEAP caseload numbers were estimated from MDRC random assignment records and the LEAP case file sample.[17] The resulting unit cost for case management

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[16]Any case management costs incurred for contacting or sanctioning teens prior to random assignment have been excluded, as has the cost of monitoring control group members.

[17]Prior to the full implementation of the CRIS-E computer system, LEAP caseload records in the 12 evaluation counties sometimes included teens who had not yet been verified as LEAP-eligible. At other times, there was a delay in excluding from the caseloads those teens who had become ineligible for LEAP. Since MDRC records included only teens who were verified as LEAP-eligible and the three-county case file sample had been used to estimate the number of months teens spent in LEAP, LEAP caseload estimates were made from these data.

Table 6.2

Estimated Four-Year Cost of LEAP to ODHS per Program and Control Group Member,
by Component and Initial School Enrollment Status
(in 1991 Dollars)

Component	Average LEAP Cost per Program Group Member ($) (A)	Average LEAP Cost per Control Group Member ($) (B)	Net LEAP Cost to ODHS per Program Group Member (A-B) ($) (C)
Full Research Sample			
Case management/county administrative cost[a]	1,140	0	1,140
State administration	47	0	47
Incentives (bonuses minus sanctions)	-6	0	-6
Transportation	134	0	134
Child care[b]	258	185	73
Total	1,573	185	1,388
Sample Members Enrolled in High School or in a GED Program at Random Assignment			
Case management/county administrative cost[a]	1,227	0	1,227
State administration	50	0	50
Incentives (bonuses minus sanctions)	124	0	124
Transportation	178	0	178
Child care[b]	344	265	79
Total	1,924	265	1,659
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment			
Case management/county administrative cost[a]	1,018	0	1,018
State administration	42	0	42
Incentives (bonuses minus sanctions)	-143	0	-143
Transportation	83	0	83
Child care[b]	161	93	68
Total	1,161	93	1,067

SOURCES: MDRC calculations based on fiscal data, participation data, and administrative records from Ohio Department of Human Services (ODHS) and information from the 12-month and three-year surveys of subsamples of program and control group members.

NOTES: For each individual sample member, the follow-up period for costs started with the month of random assignment. The follow-up period, which ended four years later, covered the entire period of LEAP eligibility (an average of 22.3 months per teen) for most program group members. For a small number of teens whose eligibility ended later, the cost of these additional months is included in the four-year cost estimates.

[a]Includes most of the cost of enhanced services (outreach and teen-focused GED) in Cleveland (Cuyahoga County).

[b]The estimated expenditures for child care cover only payments to providers. The cost of LEAP child care does not include any expenditures incurred by Child Day Care Department staff in providing referrals or administering payments.

and county administration is $51.14 per month.[18]

After determining the unit cost of the LEAP case management/county administrative cost, the next step was to determine the average number of months teens spent in LEAP. Program group teens were eligible for LEAP an average of 22.3 months during the four-year follow-up period.[19] Teens were eligible (and mandatory) for LEAP until their 20th birthday unless they left LEAP sooner because they obtained a high school diploma or a GED, left welfare, or moved out of state.[20] The average number of months in LEAP was estimated using AFDC payment records and school completion data from the three-year survey sample, described in Chapter 2.

As shown in Table 6.2, the average case management/county administrative cost of LEAP per program group member was $1,140 ($51.14 per month multiplied by 22.3 months of eligibility). In a similar manner, the cost of state administration was calculated by multiplying the unit cost by 22.3.

The cost of grant adjustments. LEAP was the first large-scale program for teen mothers on welfare who had not completed high school that offered bonuses for cooperating with program requirements (as well as sanctions for noncooperation). As reviewed in Chapter 3, grant adjustments of $62 were added (bonuses) or subtracted (sanctions) from the teens' welfare payments depending on whether the teens fulfilled the LEAP school attendance mandate.[21] When the program began, it was difficult to hypothesize whether having two types of grant adjustments would result in a net savings or loss to the state. (For this reason, there are question marks in the LEAP incentives row of Table 6.1.) Cooperative teens earn more bonuses (by attending school regularly) but leave the program sooner (mainly by graduating from high school earlier), but uncooperative teens sometimes incur numerous sanctions before they become ineligible for LEAP at age 20. After the LEAP teens were followed through their entire period of eligibility, an analysis found that the effect of the grant adjustments was negligible, amounting to less than one (0.1) sanction. Therefore, the cost of incentive payments was negative, creating a savings of $6 per program group member ($62 multiplied by 0.1 sanctions).

Transportation costs. LEAP paid transportation costs for LEAP teens attending school. Overall, the unit cost of transportation was $6 per month per program group member. The type of transportation and method of payment varied by county and by whether the teen lived in a rural or urban area. For example, in Cleveland, teens received monthly bus passes, which were paid for by LEAP. In some counties, the transportation stipend was given directly to

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[18]See Appendix Table G.1, which also contains unit cost estimates for other components of the analysis.

[19]The eligibility period for a small number of teens ended after the four-year follow-up period used in the benefit-cost analysis. The cost estimates include these additional months of eligibility.

[20]Months in LEAP are referred to in this analysis as "months of eligibility." Eligibility was verified at random assignment, and teens were in LEAP every month they were eligible for the program, regardless of whether they cooperated with it. Therefore, in this study, the maximum number of months of eligibility for a teen was the number of months from her month of random assignment until the month in which she turned 20.

[21]As noted in Chapter 1, teens with excused absences or exemptions received neither a bonus nor a sanction. Teens also received neither type of grant adjustment for summer months, when school was closed.

the teen. Some school districts provided bus transportation (at no expense to LEAP), but sometimes LEAP incurred the expense of providing car service for teens with infants (who brought the infants to child care providers before starting the school day) because some school bus companies have regulations against transporting children below a certain age. Across all 12 counties, the average cost of transportation for ODHS (including zero dollars for teens who did not use LEAP-paid transportation) was $134 per LEAP teen during the entire eligibility period — $6 per month multiplied by 22.3, the average number of months program group members were in LEAP.

Child care costs. The LEAP program paid for child care for both program group members and control group members who were attending high school or a GED program. According to Ohio regulations, day care providers must be licensed in order to receive child care payments from public funds. This limitation meant that child care provided by relatives was usually not paid for by LEAP. Many teens, especially those with young children, used such child care (see Bloom et al., 1993). Approximately a third more program group members than control group members used LEAP-funded child care. However, because the child care usage was low for both groups, the expenditures for child care contributed little to the net cost of LEAP.[22]

Teens in the program group who needed child care were referred by their LEAP case manager (or Income Maintenance worker) to the Child Day Care Department, where a staff person assisted the teen in finding a provider and making child care arrangements. For control group members, the referral to LEAP child care was made by the Income Maintenance worker. The average cost of child care per teen who used LEAP-funded child care was $3,397 ($221 per month for an average of 15.4 months). However, the percentage of teens using such care was low — 7.6 percent of teens in the program group and 5.5 percent of teens in the control group.[23] Thus, when the cost of LEAP child care for the program group was averaged over all program group members (including those not using LEAP child care), the cost of child care over the entire period of eligibility was found to be $258 per program group member. The average cost of LEAP child care per control group member during the same period was $185. Therefore, the net cost of LEAP child care per program group member was $73 ($258 minus $185).

Figure 6.2 presents the cost of each component as a percentage of LEAP's total net cost.

B. The Net Cost of LEAP to ODHS (Figure 6.1, Box 2)

The net cost of LEAP is the amount ODHS spent per program group teen over and above the amount it spent per control group teen. As shown in Table 6.2, the net cost of LEAP was $1,388. Teens were in LEAP an average of 22.3 months, which means that the average cost for 12 months per teen was $747. Thus, LEAP has been a relatively inexpensive program to operate.

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[22]The estimated expenditures for child care cover only payments to providers. The cost of child care does not include any expenditures incurred by Child Day Care Department staff in providing referrals or administering payments.

[23]Child care rates were estimated using data from the 12-month follow-up survey, which measured LEAP child care used while teens attended school.

Figure 6.2

Percentage Distribution of the Net Four-Year Cost of LEAP
per Program Group Member, by Component

Case
Management/County
Administrative Cost
81.8%

State Administration
3.4%

Transportation
9.6%

Child Care
5.2%
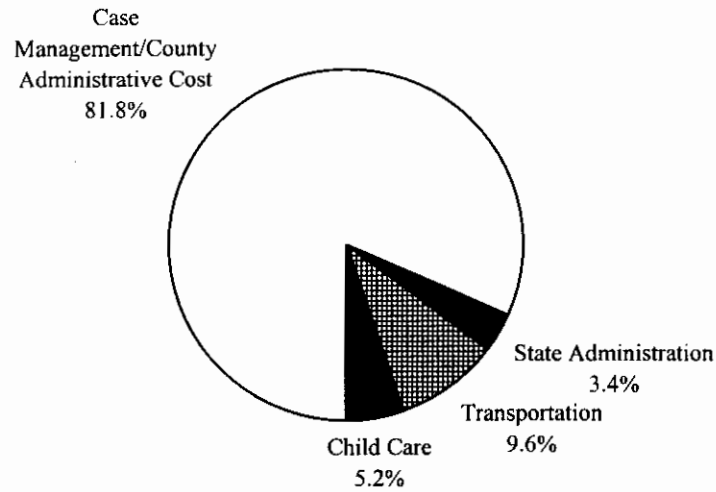
SOURCE: Table 6.2, column C.

NOTES: For each individual program group, the four-year follow-up period for costs started with the month of random assignment and ended four years later.

Incentives are not shown in this figure because they resulted in a small saving, rather than a cost (slightly more sanctions than bonuses were issued). In absolute dollars, this saving amounted to less than 1 percent of the net cost of LEAP.

The net cost of LEAP to ODHS for teens who were enrolled in school or in a GED program when they entered the study was higher than the cost for those not initially enrolled, $1,659 compared with $1,067 (Table 6.2, column C). Teens who were enrolled in school when they entered the study spent more months in LEAP. At first, this might seem counterintuitive because more of these teens left LEAP before their 20th birthday as a result of earning a high school diploma or a GED. Attainment of one of these credentials did shorten some teens' time in LEAP, but, on average, initially enrolled teens spent 24 months in LEAP, compared with 19.9 months for those not initially enrolled, because the initially enrolled teens were younger (by an average of one full year). Also, the initially enrolled teens earned more bonuses than sanctions, which added to the net cost. Finally, initially enrolled program group members spent significantly more time attending school than did initially enrolled control group members, resulting in a higher net cost of child care for the initially enrolled subgroup.

C. Net Non-LEAP (Indirect) Costs (Figure 6.1, Box 4)

The net cost of all non-LEAP activities is the difference between expenditures on the program group and the control group for publicly funded education and employment-related activities during the four-year follow-up period. This cost was estimated to be $332 per program group member, consisting almost entirely of expenditures on secondary education. LEAP requires school attendance until the teen has graduated from high school or received a GED. The public supports secondary education and places a value on having an educated citizenry, but education nonetheless carries a cost to taxpayers. Therefore, to account for these "indirect" cost implications of the LEAP program, the analysis includes the net cost of education (i.e., the difference in education costs incurred on behalf of teens in the program group and teens in the control group) in the total net cost of LEAP from the taxpayer and social perspectives.

LEAP had impacts on enrollment in high school and GED programs (discussed in Chapter 3). Therefore, the cost of education for the program group exceeded that for the control group. The net cost of education was calculated separately for those attending high school and for those participating in GED programs.

Net cost of high school education. The 1990–91 statewide cost in Ohio for one student attending school daily for one school year (nine months) was $4,390.[24] The school enrollment and attendance information from the 12-month survey and school enrollment rates from the three-year survey were used to calculate how many more months the program group attended high school than the control group during the four-year follow-up period: an average of one additional month, which was multiplied by the cost of high school education per school month to obtain a net cost of high school education. This net cost was averaged across all program group members, resulting in a net cost of $500 per program group member.

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[24]This figure is from the Ohio Department of Education's Information Management System (ODEIMS) and applies to both elementary and secondary school. A separate cost estimate per pupil for secondary school only is not available from the ODEIMS.

Net cost of GED programs. The 1991 statewide cost per GED participant was $121.[25] To estimate the net cost of GED programs, rates of participation by the program group and the control group were compared.[26] The net cost of GED programs was then averaged across all program group members, resulting in a net cost of $18 per program group member.

Net cost of employment-related education and training. The LEAP program did not provide employment-related education and training activities, nor did LEAP staff make referrals to these activities. Nevertheless, some teens in both the program group and the control group participated in these activities (see Appendix Table D.2). Therefore, the net cost of these activities is an indirect cost of LEAP. Control group members made slightly greater use of each of these activities than did program group members, so LEAP resulted in a net savings rather than a net cost for each activity. More teens took part in vocational training than in any other activity (17.5 percent of the program group and 19.3 percent of the control group), resulting in a net savings of $143, as shown in Table 6.3. The estimated net costs of each of the other employment and training-related activities were small negative amounts.

D. The Total Net Cost of LEAP (Figure 6.1, Box 5)

The total net cost of LEAP was $1,721 per program group member over the four-year follow-up period, in which (as discussed earlier) the average program group member was eligible for LEAP for 22.3 months. This is the sum of the net cost of LEAP ($1,388) and the net cost of non-LEAP activities ($332). The initially enrolled program group members had a net non-LEAP cost of $770 — the result of increased high school attendance — compared with a near-zero amount (negative $48) for the not initially enrolled group. In both groups, teens in the control group, who were excused from LEAP and its education mandate, participated in more vocational training than their LEAP counterparts, which caused the net cost of this activity to be just over a negative $100 per LEAP teen. Therefore, the total net cost of LEAP (i.e., the cost per LEAP teen over and above the cost per control group member) for the initially enrolled and not initially enrolled groups was $2,429 and $1,019, respectively.

IV. Program Effects (Benefits) for the Research Sample

A. Earnings and Fringe Benefits

Chapter 4 showed that teens in the program group earned more than teens in the control group during part of the four-year follow-up period. Table 6.4 presents the net present value (defined in Section IIA of this chapter) of these small positive net differences in earnings over the

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[25]A person was counted as a GED participant only if she attended at least 12 hours of classes. A person who attended different GED programs during the same year would be counted more than once.

[26]GED participation rates were obtained from the 12-month survey and the three-year survey.

Table 6.3

Estimated Four-Year Total Net Cost per LEAP Program Group Member, by Service Component and Initial School Enrollment Status (in 1991 Dollars)

Component	Total Net Cost per Program Group Member ($)
Full Research Sample	
LEAP activities and services	1,388
Non-LEAP activities	
High school	500
GED programs	18
Employment-related activities	
Job club/job search	-4
Unpaid work experience	-3
On-the-job training	-19
Vocational training	-143
College	-18
Total	332
Total LEAP and non-LEAP net cost	1,721
Sample Members Enrolled in High School or in a GED Program at Random Assignment	
LEAP activities and services	1,659
Non-LEAP activities	
High school	861
GED programs	8
Employment-related activities	
Job club/job search	11
Unpaid work experience	1
On-the-job training	-22
Vocational training	-126
College	36
Total	770
Total LEAP and non-LEAP net cost	2,429

(continued)

Table 6.3 (continued)

Component	Total Net Cost per Program Group Member ($)
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment	
LEAP activities and services	1,067
Non-LEAP activities	
High school	129
GED programs	23
Employment-related activities	
Job club/job search	-22
Unpaid work experience	-12
On-the-job training	-11
Vocational training	-115
College	-39
Total	-48
Total LEAP and non-LEAP net cost	1,019

SOURCES: Table 6.2, Appendix Tables G.1 and G.2, and information from the 12-month and three-year LEAP surveys. Education data are from the Ohio Department of Education (ODE).

NOTE: For each individual sample member, the follow-up period for costs started with the month of random assignment and ended four years later.

Table 6.4

**Estimated Four-Year Program-Control Group Differences in Earnings,
Fringe Benefits, and Personal Taxes per LEAP Program
Group Member (in 1991 Dollars)**

Component of Analysis	Program Group ($)	Control Group ($)	Difference
Earnings	4,072	3,916	156
Fringe benefits[a]	489	470	19
Total earnings and fringe benefits	4,560	4,386	174
Personal taxes			
Social Security and Medicare payroll taxes[b]	311	300	12
Federal income tax	-395	-390	-5
State income tax	20	17	3
State sales and excise taxes	296	305	-8
Total taxes	233	232	1
Sample size (total = 4,151)	3,479	672	

SOURCES: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records and from published data on tax rates and employee fringe benefits.

NOTES: For each individual sample member, the follow-up period for earnings, fringe benefits, and personal taxes started with the quarter in which the teen was randomly assigned and ended four years later.

Estimates reflect discounting and adjustment for inflation.

Differences are regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences.

Tests of statistical significance were not performed.

[a]These include employer-paid health and life insurance, pension contributions, and worker's compensation.

[b]Employee portion only.

first four years following random assignment.[27] As the table shows, the net earnings gain for that period was $156 per program group member (in 1991 dollars).[28]

Fringe benefits — in the form of employer-paid health and life insurance, pension contributions, and worker's compensation associated with these earnings — were part of sample members' total compensation from working, and in the analysis were estimated to be 12 percent of wages.[29] Because of the small net earnings, the additional fringe benefit amount was only $19. Therefore, the total net work-related compensation was $174 per program group member during the four-year follow-up period.

B. Tax Payments

LEAP produced a net difference in earnings, with effects on federal income taxes, state income tax, payroll taxes, and state sales and excise taxes. Tax rates and rules for 1992, including the Earned Income Tax Credit (EITC),[30] were applied to an appropriate income base to impute taxes from earnings and other income.[31] As shown in Table 6.4, total taxes were virtually identical for the program group and the control group. LEAP was estimated to have decreased the level of federal income taxes paid by program group members (relative to the control group), despite their higher earnings (an effect of the EITC). Many program and control group members owed no federal income taxes once the value of standard deductions and exemptions was subtracted from their taxable income and the EITC tax subsidies were included. Increases in Social Security and

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[27]Tables 6.4 and 6.5, like the cost and impact tables, show program-control group differences as positive when the mean (i.e., average) value for program group members exceeds the mean value for control group members and as negative when the control group mean is higher. Table 6.6, which incorporates the four analytical perspectives, uses a different format for displaying benefit-cost results. In this table, an effect has a positive value if it represents a net gain from the perspective in question and a negative value if it represents a net loss. Therefore, the same effect will appear positive in some columns and negative in others.

[28]Earnings gains and reductions in AFDC are discounted and expressed in 1991 dollars.

[29]The 12 percent estimate is from the benefit-cost study for JOBSTART, and is used because that program also served a youth population (see Cave et al., 1993).

[30]The Earned Income Tax Credit (EITC) is a credit against federal income taxes for taxpayers with annual earnings below a threshold level. As with other tax credits, each dollar of EITC reduces by a dollar the taxes owed. Eligible persons can receive the EITC as a payment from the government if they owe no federal income taxes. Schedule Z EITC rates for 1992 were used in this analysis. For 1992, only taxpayers who had dependent children and whose earnings ranged from $1 to $22,373 were eligible for the EITC. Taxpayers who had two or more children and who earned between $7,520 and $11,840 received the maximum value of the EITC, $1,384; those with only one child received up to $1,324. Taxpayers earning between $11,840 and $22,373 received a progressively lower value of the EITC. Not all eligible taxpayers receive the EITC. Following the approach MDRC adopted in its evaluation of California's GAIN program (see Riccio, Friedlander, and Freedman, 1994), the EITC "take-up" rate was set at 70 percent. The GAIN analysis based this rate on findings from Scholz, 1994, and subsequent conversations with the author. The rate was applied to all sample members. That is, each sample member's earnings were used to calculate the value of the EITC that she would have received; that amount was then multiplied by .7.

[31]Earnings were used in computing federal income taxes for every sample member. The combined income from earnings, AFDC payments, and Unemployment Insurance compensation was used in calculating sales and excise taxes. The estimation of federal taxes was based on 1992 tax rates, exemption amounts, and Earned Income Tax Credit rules, since that year was about midway in the 1991-96 period of data collection for the earnings and AFDC data analyzed in this report.

Medicare payroll taxes paid by program group members and the decreases in federal income taxes were both small.[32]

C. Transfer Payments

The impact analysis presented in Chapter 5 found that LEAP produced modest savings in AFDC payments during years 3 and 4. The benefit-cost analysis estimates the effects of LEAP on these transfer payments, and also considers its effects on Food Stamps, Medicaid payments, and the costs of administering all three transfer programs. This section discusses the results of this analysis during the four years after random assignment. As before, program-control group differences are expressed in 1991 dollars and are discounted. As shown in Table 6.5, LEAP was estimated to have realized AFDC savings averaging $574 per program group member during the four-year period.

The analysis estimates program-control group differences in average Medicaid payments[33] using the observed and imputed differences in AFDC receipt and earnings, rules governing Medicaid eligibility, and published data on average Medicaid payments made to all eligible individuals. An individual on AFDC has been automatically entitled to receive Medicaid and, under certain circumstances, is eligible to receive transitional Medicaid for 12 months after leaving the AFDC rolls for employment.[34] The analysis estimates program-control group differences in AFDC-related Medicaid and transitional Medicaid and then combines these effects into a single estimate of Medicaid savings. To impute the value of Medicaid payments for AFDC recipients, it is necessary, first, to estimate the average value of Medicaid dollars paid on behalf of the sample member's AFDC case during a typical month of Medicaid eligibility. This average is calculated by multiplying the average Medicaid monthly payment for a single adult or child on AFDC by the number of adults and children on the sample member's case (as estimated from AFDC administrative payments records). In 1993, in Ohio, the average value of Medicaid payments per AFDC-eligible

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[32]Employers pay an "employer's share" of these payroll taxes, which matches the rate paid by their employees. However, since employers are taxpayers, employer contributions do not figure in the benefit-cost results from the perspective of taxpayers, as noted earlier.

[33]The analysis and description of Medicaid estimates is adapted from Kemple, Friedlander, and Fellerath, 1995 (the final report from MDRC's evaluation of Florida's Project Independence program).

[34]Estimates of the value of transitional Medicaid for the entire follow-up period are based on eligibility rules that went into effect in April 1990. Former AFDC recipients and their families can receive up to 12 months of transitional Medicaid if they lose AFDC eligibility because of increased earnings, increased hours of employment, or loss of earnings disregards (the portion of a recipient's earnings that is not counted — is "disregarded" — in calculating her welfare grant). A basic requirement for transitional Medicaid eligibility is that a person receive earnings high enough to terminate her AFDC eligibility. (A person would not be eligible for transitional Medicaid if her gross monthly earnings minus necessary child care costs exceeded 185 percent of the federal poverty level. However, this requirement was not considered in the analysis because relatively few sample members earned that much.) Because only quarterly earnings data were available for the analysis, it was assumed that a sample member had met the earnings requirement in all three months of a calendar quarter if her quarterly earnings were at least three times the minimum level that, in a single month, would have closed her AFDC case.

Table 6.5

**Estimated Four-Year Program-Control Group Differences in
Transfer Payments and Administrative Costs per LEAP
Program Group Member (in 1991 Dollars)**

Type of Payment or Cost	Program Group ($)	Control Group ($)	Difference
Transfer payments			
AFDC	10,746	11,320	-574
Food Stamps	6,855	6,903	-47
Medicaid (while on AFDC)			
and transitional Medicaid	15,554	16,219	-664
Total	33,155	34,441	-1,286
Administrative costs			
AFDC	1,143	1,204	-61
Food Stamps	979	986	-7
Medicaid (while on AFDC)			
and transitional Medicaid	499	521	-21
Total	2,622	2,711	-89
Sample size (total = 4,151)	3,479	672	

SOURCES: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records. Data were available for the third and fourth years following random assignment. AFDC payments in years 1 and 2 were projected using baseline data on AFDC receipt (i.e., data collected when teens were randomly assigned) and the available AFDC payments data.

NOTES: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

     Estimates reflect discounting and adjustment for inflation.

     Differences are regression-adjusted using ordinary least squares, controlling for pre-random assignment characteristics of sample members. Rounding may cause slight discrepancies in calculating sums and differences.

     Tests of statistical significance were not performed.

person per month was $150.[35] This average was then multiplied by the total number of months of AFDC receipt for each sample member, resulting in an estimate of total Medicaid expenditures for the four-year period. Finally, the program-control group difference in total payments was calculated. A similar strategy was used to estimate LEAP's effects on transitional Medicaid payments (based on the number of months of imputed eligibility for those payments). As indicated in Table 6.5, LEAP was estimated to have achieved a combined savings in Medicaid (in 1991 dollars) of $664.

Combining average savings in AFDC, Food Stamps, and Medicaid yielded an average savings in transfer payments of $1,286 during the four-year follow-up period. These savings, in turn, decreased the costs of administering transfer payments by an average of $89 per program group member. LEAP's effects on transfer program administrative expenditures were estimated based on differences in estimated use of the transfers and on information about state and federal program costs.[36]

V.   Comparing LEAP's Benefits and Costs for the Full Research Sample

Table 6.6 summarizes LEAP's monetary effects from the research sample, ODHS budget, taxpayer, and societal perspectives. The analysis measures specific program-control group differences as gains (indicated by positive values) and losses (indicated by negative values). Results are then added together to produce an estimate of the net gain or loss of the LEAP program from the perspective in question.

A. Results from the Teens' Perspective

As the first column of Table 6.6 shows, LEAP program group members, on average, experienced a net financial *loss* as a result of the program, estimated at $1,110 per teen over the four-year period. The LEAP teens experienced earnings gains (relative to the control group), but these increases were not enough to compensate for the substantial decreases in AFDC and Medicaid benefits. Even if Medicaid benefit reductions were excluded from the analysis, LEAP teens' household income would still show a net loss because the decrease in welfare payments alone exceeded the earnings gains.

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[35]The Medicaid unit cost estimate excludes the elderly; it applies only to adults and children on AFDC. The average monthly number of Medicaid recipients was obtained from an Ohio Department of Human Services Medicaid Management Information System report, *Medicaid: Eligibles, Participants, and Expenditures, State Fiscal Year 1993*. Medicaid expenditure information was obtained from tables in U.S. Department of Health and Human Services, 1994a.

[36]Combined federal, state, and local administrative costs for each of the three transfer payments were estimated as a percentage of the value of the payments, i.e., by dividing total administrative costs by total payments. The estimated percentages were 10.64 (AFDC), 14.28 (Food Stamps), and 3.21 (Medicaid). Data for calculating these measures were obtained from U.S. Congress, House Committee on Ways and Means, 1994; U.S. Department of Health and Human Services, 1994a; U.S. Department of Health and Human Services, 1994b; and the Ohio Department of Human Services, Fiscal Services Division.

Table 6.6

**Estimated Four-Year Net Gains and Losses and Return per LEAP
Program Group Member, by Accounting Perspective
(in 1991 Dollars)**

Component of Analysis	Accounting Perspective			
	Research Sample ($)	ODHS Budget ($)	Taxpayer[a] ($)	Society ($)
Earnings	156	0	0	156
Fringe benefits[b]	19	0	0	19
Tax payments				
Payroll taxes (employee portion)	12	0	-12	0
Income and sales taxes	-11	0	11	0
Transfer programs				
AFDC payments	-574	574	574	0
Food Stamps	-47	47	47	0
Total Medicaid	-664	664	664	0
Transfer administrative costs	0	89	89	89
Net cost of LEAP activities and services	0	-1,388	-1,388	-1,388
Cost of education and other non-LEAP activities	0	0	-332	-332
Value of education not reflected in earnings	+	0	+	+
Preference for work over welfare	+	0	+	+
Forgone personal and family activities	−	0	0	−
Net gain or loss	-1,110	-13	-347	-1,457
Return to budget per net dollar invested[c]	n/a	$0.99 per $1	$0.75 per $1	n/a

SOURCES: See Tables 6.3, 6.4, and 6.5.

NOTES: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

[a]The taxpayer perspective includes indirect costs to other government agencies (mostly for education) that are not covered by the ODHS budget for the LEAP program.

[b]These include employer-paid health and life insurance, pension contributions, and worker's compensation.

[c]The return to budget per net dollar invested in LEAP and non-LEAP activities and services is computed by dividing tax payments and transfer program savings by the net cost of LEAP activities and services ("n/a" means not applicable).

From the research sample perspective, both the initially enrolled and not initially enrolled teens experienced net losses of $1,032 and $1,159, respectively (see Tables 6.7 and 6.8), during the four-year follow-up period. The initially enrolled teens had higher earnings gains, but they also had lost more transfer payments. However, the initially enrolled teens had significant school enrollment gains that may have a future payoff. The not initially enrolled teens earned less and experienced a loss in transfer payments, but there were no education gains.

B. Results from the ODHS Budget Perspective

The benefit-cost result from the ODHS perspective is calculated using only the net cost of LEAP activities and support services that are funded by ODHS. The non-LEAP net costs, which are primarily the education costs resulting from any LEAP impacts on school enrollment and attendance, are excluded from this calculation.

Within four years, ODHS recovered its outlays for the LEAP program. As a result of LEAP, there was a decrease in AFDC payments and related public assistance that paid for the cost of the LEAP program to ODHS. The second column of Table 6.6 presents the benefit-cost findings from the perspective of the ODHS budget. On average, LEAP was a break-even proposition for the department, with a loss of $13 per program group member. One can also look at the same result, from the standpoint of the ODHS budget, by estimating the value of budgetary savings per dollar of investment (i.e., per dollar of net costs of LEAP activities and services). This measure, called "return to budget per net dollar invested" and presented in the last row of Table 6.6, is calculated by dividing the combined savings from transfer payments and associated administrative costs by the net cost of LEAP. According to this measure, the ODHS budget saw a return of $0.99 in revenues and savings for every net dollar spent on program group members — which means that, from the perspective of the welfare department, LEAP paid for itself.[37]

From ODHS's perspective, LEAP was cost-effective for initially enrolled teens. For every dollar invested, ODHS had $1.03 returned for this subgroup, compared to $0.88 returned for the not initially enrolled subgroup. Examining the two subgroups, rather than the entire research sample, makes the challenges to ODHS and other state agencies implementing learnfare programs clearer. It appears to be especially difficult to operate a cost-effective program for school dropouts.

C. Results from the Taxpayer Perspective

The results for taxpayers (defined for this analysis as everyone in society other than the welfare sample) are also shown in Table 6.6. The benefit-cost results for taxpayers include the net change in tax payments and the net cost of education and other non-LEAP activities. The LEAP

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[37]The ratio of $0.99 return to budget per net dollar invested is calculated by dividing the combined savings in transfer payments and administrative costs ($1,374) by the $1,388 in net costs of providing LEAP activities and services to program group members. For taxpayers (defined for this analysis as everyone in society other than the research sample), the ratio of $0.75 return to budget per net dollar invested is calculated after the net change in tax payments and the net cost of education and other non-LEAP activities are included.

Table 6.7

Estimated Four-Year Net Gains and Losses and Return per LEAP Program Group Member Enrolled in High School or in a GED Program at Random Assignment, by Accounting Perspective (in 1991 Dollars)

Component of Analysis	Accounting Perspective			
	Research Sample ($)	ODHS Budget ($)	Taxpayer[a] ($)	Society ($)
Total from earnings and fringe benefits[b]	580	0	0	580
Total from tax payments	-18	0	18	0
Transfer programs				
AFDC payments	-665	665	665	0
Food Stamps	-64	64	64	0
Total Medicaid	-865	865	865	0
Transfer administrative costs	0	108	108	108
Net cost of LEAP activities and services	0	-1,659	-1,659	-1,659
Cost of education and other non-LEAP activities	0	0	-770	-770
Value of education not reflected in earnings	+	0	+	+
Preference for work over welfare	+	0	+	+
Forgone personal and family activities	-	0	0	-
Net gain or loss	-1,032	42	-709	-1,742
Return to budget per net dollar invested[c]	n/a	$1.03 per $1	$0.57 per $1	n/a

SOURCES: See Tables 6.3, 6.4, and 6.5.

NOTES: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

[a]The taxpayer perspective includes indirect costs to other government agencies (mostly for education) that are not covered by the ODHS budget for the LEAP program.

[b]These include employer-paid health and life insurance, pension contributions, and worker's compensation.

[c]The return to budget per net dollar invested in LEAP and non-LEAP activities and services is computed by dividing tax payments and transfer program savings by the net cost of LEAP activities and services ("n/a" means not applicable).

Table 6.8

**Estimated Four-Year Net Gains and Losses and Return per LEAP Program Group Member
Not Enrolled in High School or in a GED Program at Random Assignment,
by Accounting Perspective (in 1991 Dollars)**

Component of Analysis	Research Sample ($)	ODHS Budget ($)	Taxpayer[a] ($)	Society ($)
		Accounting Perspective		
Total from earnings and fringe benefits[b]	-317	0	0	-317
Total from tax payments	29	0	-29	0
Transfer programs				
AFDC payments	-447	447	447	0
Food Stamps	-36	36	36	0
Total Medicaid	-389	389	389	0
Transfer administrative costs	0	65	65	65
Net cost of LEAP activities and services	0	-1,067	-1,067	-1,067
Cost of education and other non-LEAP activities	0	0	48	48
Value of education not reflected in earnings	+	0	+	+
Preference for work over welfare	+	0	+	+
Forgone personal and family activities	–	0	0	–
Net gain or loss	-1,159	-132	-112	-1,271
Return to budget per net dollar invested[c]	n/a	$0.88 per $1	$0.89 per $1	n/a

SOURCES: See Tables 6.3, 6.4, and 6.5.

NOTES: For each individual sample member, the follow-up period for benefits started with the quarter in which the teen was randomly assigned; the four-year follow-up period for costs started with the month of random assignment. The follow-up period ended four years later.

[a]The taxpayer perspective includes indirect costs to other government agencies (mostly for education) that are not covered by the ODHS budget for the LEAP program.

[b]These include employer-paid health and life insurance, pension contributions, and worker's compensation.

[c]The return to budget per net dollar invested in LEAP and non-LEAP activities and services is computed by dividing tax payments and transfer program savings by the net cost of LEAP activities and services ("n/a" means not applicable).

program mandates school attendance, but does not provide or pay for any education services. To the extent that more LEAP teens attended high school and GED programs, additional costs for education were incurred. Since there is broad public support for providing the educational opportunity to achieve a high school diploma or a GED, how should one interpret the cost of education that LEAP teens received over and above that of their control group counterparts? Education expenditures are "complementary" costs, because enrollment in school follows upon cooperating with the program being studied. They consequently are included in the bottom line net gain or loss.[38] This is consistent with the benefit side of the analysis, where one would expect increased earnings and a drop in welfare receipt to result from increased enrollment. Nevertheless, states that are considering initiating programs similar to LEAP may find the ODHS perspective, which excludes the cost of publicly funded education, more helpful in their planning.

From the taxpayer perspective, there was an overall net loss of $347 per program group member (column 3 of Table 6.6). As shown in column 3 of Table 6.7, the net loss for the initially enrolled teens is attributable to the positive impact of LEAP on their school enrollment. Future benefits may offset this loss. For the not initially enrolled teens, LEAP produced a smaller net loss (see Table 6.8) because there were no additional costs for secondary education. However, it is also less likely that there will be future earnings gains for these teens.

D. Results from the Perspective of Society as a Whole

The last column of Table 6.6 presents the final benefit-cost results from the societal perspective — a combination of the research sample and taxpayer perspectives. Benefits accrued to society through earnings gains and savings in transfer program administration. All other effects represent gains from one perspective and losses from the other, resulting in no effect for society as a whole. All in all, the program carried a net cost to society of $1,457 (column 4 of Table 6.6). As previously discussed, this assumes that a dollar lost by one group has the same value as a dollar gained by another group, and that LEAP caused no displacement effects.

VI.   Future Effects

As discussed in Chapter 3, LEAP achieved its primary goal, increased school enrollment and attendance. Although it did not increase high school completion, except for initially enrolled teens in Cleveland, it did significantly increase completion of the 9th, 10th, and 11th grades. It also increased GED completion for initially enrolled teens. These education gains would be expected to result in increased earnings and a reduction in welfare receipt. In the four-year period covered by the benefit-cost analysis, there was a positive impact on earnings and an impact on decreased welfare payments. Will these impacts continue in future years? The downward trend, from year 3 to year 4, in the percentage of LEAP teens receiving welfare suggests that there may be some additional impacts on welfare reduction.

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[38]See Cottingham and Ellwood, 1989.

The story on earnings is more mixed. There was a positive impact on earnings in the four-year follow-up period. However, earnings impacts vanished (turning negative in the final year, although this was not statistically significant). Nevertheless, since teens' earnings were measured only through year 4, when the average teen was 21 years old and some teens were still enrolled in high school or GED programs, LEAP's long-term effects may not be fully captured by the results. Also, earnings for some teens were from part-time jobs, sometimes while the teens were still attending school. After the four-year follow-up, more teens may have earned high school diplomas or GEDs or attended college. Obtaining a high school diploma is associated with higher earnings. This relationship is less clear for those who obtain a GED, but one recent study showed modest earnings gains asociated with GED receipt.[39] Also, GED completion is shown to increase enrollment in vocational training, which may have additional benefits in the long run.[40]

VII.   Nonmonetary Program Effects

Some costs and benefits, although difficult to measure in dollar terms, are potentially important. Both the teens and taxpayers may derive more than just financial benefits from LEAP's positive education impacts. Additional education can open new education opportunities and may make the teens more involved citizens and better models for their children. Although LEAP was not specifically designed as a two-generation program, it seems likely that education gains by LEAP teens will have correspondingly positive effects on their children. Another intangible benefit that is not fully captured by a decrease in welfare payments is society's preference for work over welfare. On the other hand, one unmeasured cost is the loss of teen parents' personal time — what is sometimes referred to as "leisure" time, but is often time spent caring for young children. When designing, implementing, and evaluating a future learnfare program, all of these nonmonetary effects must be considered in relation to effects that were measured by the benefit-cost analysis.

VIII.   Conclusion

LEAP was found to be a relatively inexpensive program, with an upfront investment of $1,388 per teen, or $747 for 12 months. Within four years following random assignment, ODHS recovered this net cost because of LEAP-induced savings in AFDC, Food Stamps, and associated Medicaid expenditures. A related analysis (from the taxpayer perspective), which includes the additional education costs attributable to LEAP's getting more teens to remain in or return to school, showed that taxpayers recovered 75 percent of their investment in LEAP within the four-year follow-up period.

LEAP teens, however, experienced a net loss of $1,110 because their earnings increases were not sufficient to offset their reductions in AFDC and other transfer payments during the

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[39]Quint, Bos, and Polit, 1997.
[40]Murnane, Willett, and Boudett, 1994.

four-year follow-up period. On the other hand, LEAP teens, whose average age was 21 at the four-year point, may experience long-term benefits from the additional education and education credentials they received as a result of the program.

Chapter 7

Policy Implications

I.   Introduction

This chapter discusses the implications for policy and practice of the findings presented in this report. Ohio's LEAP experience, as described in this document, offers important lessons for policymakers and program administrators, especially in the current environment in which states are charged with developing new approaches to providing assistance to teen parents. Some of these lessons reflect the program's achievements: The results of the evaluation show that LEAP significantly changed teens' behavior and produced welfare-related savings that offset the cost of the program. Other lessons point policymakers to the potential for greater success, because the research findings also suggest that there is considerable room for improvement in LEAP's effectiveness. The chapter discusses a range of options for achieving this improvement, some of which Ohio has recently implemented.

The chapter has four sections. The first summarizes the main findings of this report, identifying areas in which the program met its goals and also areas in which improvement seems both needed and possible. The second section discusses some of the elements of program policy and practice that appear to have been important to LEAP's success, along with program changes that potentially could produce improved results. The third section describes changes to the LEAP program implemented by the Ohio Department of Human Services in 1996, and indicates how they are intended to achieve such improvement. The chapter concludes with a discussion of some broader lessons on working with teen parents and provides recommendations on developing welfare policy for this population within the guidelines set by the 1996 federal welfare law.

II.   Placing the Findings in Perspective

The LEAP model tested in this evaluation included a financial incentive structure that was more elaborate, monitoring of participants' activity that was more demanding, and case management that was conducted on a larger scale than in any other initiative for teen parents in the United States. Previous reports on the evaluation found that the LEAP incentive structure was implemented successfully after initial difficulties, and reached virtually all program group members at some point after their entry into the study. The research also concluded that the monitoring of teens' daily school attendance was consistent with LEAP's strict rules and timetable, once some initial hurdles were cleared, and that case managers carried out a program that teens generally regarded as tough, but also fair and well intentioned. This was a genuine achievement.

The immediate objective of the LEAP model was to alter the behavior of teen parents on

welfare in two important, specific ways: Increase their enrollment in high school and GED programs and improve their attendance while they were enrolled. These are the outcomes that were directly encouraged by the LEAP incentive structure. To a considerable extent, LEAP met this immediate goal: The program's impacts on enrollment and attendance were substantial and statistically significant. Still, there is room for further improvement. LEAP increased — from more than 50 percent to more than 60 percent — the proportion of teens already in school who stayed enrolled for virtually their entire first year in LEAP or graduated during that period. That percentage could obviously rise further. Similarly, LEAP increased the fraction of dropouts who returned to school from a third to almost a half, but the number of returnees could be pushed higher, too.

In the longer term, it was hoped that LEAP's direct effects on enrollment and attendance would translate into improvement in other outcomes in the "impact chain": greater progress in school, more receipt of high school diplomas and GEDs, increased employment, and ultimately reduced welfare dependence. LEAP's impacts on these outcomes have been promising, but generally smaller and less consistent than its effects on school enrollment and attendance. A particularly weak link in the impact chain has proven to be school completion: Except in Cleveland, LEAP did not have a significant effect on high school graduation, despite increasing the rates at which teens finished the 9th, 10th, and 11th grades. Initially enrolled teens experienced a modest, but statistically significant, increase in GED receipt.

As a result, even though the program achieved substantial short-term effects on employment and a significant reduction in AFDC receipt, the size and duration of these effects may have been held down by LEAP's disappointing effect on school completion. The impact on employment, which was significant only for initially enrolled teens, would almost certainly have been greater had LEAP generated a larger effect on school completion. This is strongly suggested both by empirical evidence for the U.S. population as a whole and by the fact that a higher proportion of teens in the LEAP sample who received a diploma or a GED gained employment than those who did not. LEAP's impacts on welfare receipt applied to both initially enrolled teens and those not initially enrolled, were comparable in magnitude to the impacts found for successful welfare-to-work programs for adults, and rendered the program cost-effective from the standpoint of the Ohio Department of Human Services. However, a more powerful program effect on employment would surely have boosted the size of LEAP's impacts on welfare receipt, and would also have made the program more beneficial from the perspectives of both teen parents (by increasing their earnings) and taxpayers (by increasing teens' tax payments and reducing further their welfare receipt).

III.   Implications for Policy and Practice

A. Implementation

This evaluation demonstrates that it is possible to successfully implement and operate a statewide program that relies on financial incentives and case management to increase school enrollment and attendance among teen parents on welfare. The benefit-cost analysis presented in

Chapter 6 also shows that the direct cost of such a program is relatively low and can be offset by welfare and welfare-related savings. This is the case even though the LEAP program did not rely on sanctions alone, as do some other programs intended to keep teen welfare recipients in school. The LEAP approach, which included bonuses, successfully combined positive and negative reinforcements, creating twice the incentive without increasing sanctions, and also giving the program a more positive image in the eyes of teens and advocates than it might otherwise have had.

The implementation findings, which were featured more prominently in previous MDRC reports (Bloom et al., 1991, 1993), offer several specific lessons as well. Especially noteworthy is the importance to the success of the program of case managers who are dedicated to working with teen parents, and who are supported by a computerized case information system. Case managers are a crucial component in the LEAP program. Without ongoing case management, a program such as LEAP would be very difficult to implement: The attendance monitoring role that case managers play is obviously central to the program, as is the role of providing assistance and information to teens (notably assistance putting together child care and transportation arrangements and information regarding program rules and policies and school options).

It is also difficult to implement a LEAP-like program without the support of a well-designed management information system, as attested to by LEAP's early operational problems. The need to integrate welfare data, school data, and case management information to provide correct and timely incentives places a substantial burden on the information system available to program administrators. LEAP's early difficulties occurred in the absence of a suitable system, and its subsequent experience with a sophisticated system (e.g., the newer system, CRIS-E, can identify eligible teens who are not AFDC case heads) underscores that successful implementation of a program like this one, especially on a large scale, is strongly related to the ability to develop and maintain a well-designed information system.[1] With the 1996 welfare law requiring school attendance by unmarried, custodial, minor teen parents (with children 12 weeks of age or older) who are receiving federal Temporary Assistance for Needy Families (TANF) funds, other states have been pushed to develop programs similar to LEAP, and many will confront system development tasks similar to those that faced ODHS in the early years of LEAP operations.

B. Enrollment and Attendance

LEAP's impacts on school enrollment and attendance were encouraging, but would be stronger if the program's effect on teen behavior could be extended to a larger share of the eligible teens. Bloom et al. (1993, p. 95) reported that the average teen in a three-county case file sample earned a bonus in only 27 percent of all the months in which she potentially could have received one, indicating that poor school attendance was far more common than regular attendance. In 22 percent of all months in which they might have earned a bonus, teens were sanctioned for failure to attend school; many teens, especially among those not initially enrolled,

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[1] The importance of information resources for the success of welfare programs is also discussed in Brock and Harknett, 1997, based on a study of the JOBS program in Franklin County (Columbus), Ohio.

received multiple sanctions. Increasing LEAP's impacts on enrollment and attendance requires greater teen responsiveness to the program's incentive structure or other program components. What options are available to achieve this?

Different program approaches, based on different theoretical perspectives, have been developed in response to the problems facing teen parents on welfare. Some programs have targeted these teens with integrated, customized services delivered in a small group context (see, e.g., Quint, Bos, and Polit, 1997). Other programs have used home visits to reach low-income parents and their children (see Olds, 1988). Still others have focused on the social networks made up of the teen parents themselves and their parents, children, and partners or boyfriends. In contrast, ODHS has taken a straightforward approach, supported by economic theory, that relies on financial incentives to alter the behavior of teen parents on welfare. LEAP's bonuses and sanctions seek to increase the attractiveness to teens of going to school and attending regularly. For the bonuses and sanctions to be successful, several conditions generally must be met: (1) The teens must understand the rules that determine when they get a bonus and when they get a sanction; (2) their choices must be rational (from an economic point of view); (3) the size of the full financial incentive to attend school (i.e., the welfare grant plus bonuses compared to the grant minus sanctions) must be sufficiently large to offset the perceived costs (both economic and noneconomic) of being in school; and (4) teens must have the ability to respond to the incentives. Each of these conditions has policy implications, as discussed below.

To begin with, it is important to take steps to ensure that all eligible teens comprehend the essential features of the program. Despite the LEAP staff's efforts to explain the program at the time of teens' initial assessment, it was found that many teens did not understand the LEAP incentives. A previous LEAP report (Bloom et al., 1993) concluded that, even though a majority of the teens were familiar with key aspects of the LEAP program, a substantial number of teens did not fully understand the program rules. This affected their response to the program, because many teens who misunderstood the rules thought that LEAP was arbitrary and unfair. In incentive programs such as LEAP, maximizing participants' understanding of the incentives being offered should be a top priority and should be given a great deal of attention both in initial orientations and through the course of long-term monitoring and case management. Program rules should be explained clearly, using illustrations and examples, and explanations should be reinforced with subsequent reminders and clarifications. As more states incorporate financial incentives in their programming for welfare recipients — whether by altering welfare grant amounts, as in LEAP, or time-limiting welfare receipt — this issue will become increasingly important. Failure to promote an understanding of key policies can reduce the effectiveness of financial incentives and increase the prevalence of financial penalties, with potentially serious consequences for the families involved.

Even if teen parents fully understand the financial incentive structure of the LEAP program, their response to it may not always be as expected. Teenage parents are confronted with numerous competing demands, many arising out of their responsibilities as parents and their

frequent personal and situational issues,[2] and they often lack the maturity needed to respond well to these demands. Thus, teens' decisions about school attendance may not always involve a careful weighing of the economic and other consequences of their actions. Indeed, some may completely disregard economic incentives like those created by LEAP and similar programs.

There are several ways to address this issue, some of which have already been employed by ODHS. One is to use regular meetings of teens with case managers as an opportunity to reinforce the teens' awareness of the short-term financial benefits of meeting LEAP's requirements as well as the longer-term benefits of completing one's education. Another option for improving teens' responsiveness to the incentives would be to make the incentives as consistent and direct as possible. For example, the administration of bonuses could be restructured to make them payable more immediately after an attendance benchmark has been met.[3] Waiting several months (as LEAP did) weakens the connection between the teen's behavior and the financial incentive associated with it, thereby increasing the likelihood that the teen will not respond to it. Finally, the size of the incentive could be increased. It is more difficult to ignore an economic reality that is truly substantial than to ignore one that is not. LEAP's incentive was already large, but Ohio's decision (discussed below) to dramatically increase sanctions for teens who do not comply with LEAP's regulations for six consecutive months is likely to increase participation among teens who do understand the incentive and are able to respond to it. However, this decision also greatly increases the risk to teens (and their families) who are unable or unwilling to meet LEAP's requirements.

Some teens may not stay in school (or re-enroll in school) despite LEAP's incentives because they feel that the cost of staying in school or going back is simply too large to be offset by the incentives offered to them. Some are working (on or off the books) and may experience a loss of income if they return to school. Others do not want to go back to school because they want to spend time with their children or do not want to leave them in the care of strangers. Yet others say that they consider school a dangerous place, feel unwelcome there, or find it to be a poor environment in which to learn (Bloom et al., 1993). All of these negative feelings represent a "cost" of returning to school, which the financial incentive must theoretically be large enough to overcome. Two general approaches could potentially be used to address this issue. One is to increase the financial incentive itself. As discussed below, ODHS is now doing so by increasing certain sanctions and adding some new bonuses.

Alternatively, the "cost" of going to school could be reduced. This could be done, for example, by allowing teens to be reimbursed for child care options they are comfortable with (instead of relying entirely on licensed day care) or by improving the school environment. Even though many Ohio school districts operate GRADS, a school-based program to facilitate participation by pregnant and parenting teens, more could be done (e.g., additional efforts to make schools feel safer). Finally, it is important to acknowledge that many teen parents have

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[2]For a discussion of these issues, see Quint and Musick, 1994.

[3]This could not be done for sanctions without adverse consequences because the time between poor attendance and a resultant grant reduction is needed to allow due process procedures to be completed before the application of a financial penalty.

academic problems or have dropped out before they become parents, which suggests that their academic problems may not be related to their status as teen parents. Other types of help, or more general school reform measures, may be needed to help teens who drop out for academic reasons prior to becoming teen parents.

Even if the cost of going to school could be reduced to the point where many more teens respond to LEAP's incentives, there will be teens for whom enrollment in school or participation in GED programs is simply not feasible, because of health reasons or substance abuse, because appropriate child care is unavailable or unacceptable, or because the teen has fallen so far behind in school that re-enrollment would not be appropriate (e.g., when an 18-year-old has a 7th-grade skills level). In some of these cases, intensive case management (including home visits) may offer a way to a solution, by helping the teen to address the personal problems in her life that prevent her from going to school. However, in other cases, the only appropriate response is to have some flexibility in the implementation of the LEAP mandate, allowing teens to fulfill their LEAP obligation with activities other than school enrollment. For older teens who have fallen too far behind, this may mean enrolling them in a more job-focused activity such as a work internship or skills training. Another approach for the most disadvantaged teens would be to consider school enrollment and completion as a more distant goal in a gradual process toward becoming more active and taking charge of one's life. In that sense, the philosophy of Project Match, a welfare-to-work program for AFDC recipients in Chicago, may be appropriate for some of the nonactive teens in LEAP. Project Match approaches longer-term welfare recipients by offering them an "incremental ladder to economic independence" on which there is a "right" place for every welfare recipient (Herr, Wagner, and Halpern, 1996). While some are ready to work or go to school, others may need to deal with personal problems first. For yet others, limited volunteer work is a place to start. The assumption underlying Project Match is that, as long as everyone engages in some activity, they will move up the "ladder" and will ultimately attain economic independence.

C. Academic Progress and School Completion

LEAP's direct effects on school enrollment and attendance were expected to lead to increased academic progress and credentials — both high school diplomas and GEDs. The program did have an impact on progress — significantly more teens finished the 9th, 10th, and 11th grades as a result of LEAP — but this progress did not extend to completion of the all-important 12th grade. As a result, program effects on credential receipt were limited to the GED. Why did this happen and how can these outcomes be improved?

One can only speculate about the reasons for LEAP's lack of effect on high school completion even though it had a significant impact on school progress. Among the potential reasons are: (1) the possibly perverse incentives created by certain features of the LEAP bonuses and sanctions, (2) the substantially greater demands of high school graduation compared to 11th-grade completion, and (3) a lack of appreciation by teens of the value of a high school diploma compared to a GED or immediate entry into the labor force.

The LEAP incentive structure may have had some unintended consequences. By offering separate bonuses for school enrollment, the LEAP incentive system may have given teens who were not eager to return to school an incentive to formally enroll, earn the accompanying bonus, and drop out (or never attend regularly). Also, some of those attending school regularly may not have had an incentive to actually make academic progress, earn credits, and work toward graduation. Being rewarded for "seat time" with attendance bonuses, these teens would not have suffered any financial consequences for failing to make academic progress. This may be an important problem for programs such as LEAP, which *mandate* that teens return to school or remain there without mandating a certain level of academic work and progress. Finally, it is noteworthy that teens who regularly attended school, and made steady academic progress, were actually penalized for completing a diploma insofar as they could no longer receive bonus payments.

Students who were induced by LEAP's financial incentives to return to school (and otherwise would not have gone) were probably more at risk of unfavorable school outcomes and school dropout to begin with. Thus, in the absence of incentives related to school performance, these students might not be expected to do very well academically. This may partly explain why LEAP's enrollment effects did not translate into school completion effects, especially for teens who were not initially enrolled in school. Note that this does not say anything about the school performance of teen parents as a group. It only implies that *those who would not attend without the LEAP incentive* are likely to do worse than their peers who choose to attend school regardless of the incentive.

All this suggests that programs like LEAP should consider emphasizing continued attendance and school performance in addition to seeking increases in school enrollment. For example, bonuses could be paid when teens successfully complete one grade and are promoted to another, and when teens graduate. Alternatively, bonuses could be based on grades, which reflect both attendance *and* academic performance.

Another possible explanation for the discrepancy between LEAP's grade completion and high school completion impacts is the series of hurdles associated with the latter. It is possible that LEAP teens accumulated more course credits, but did not complete specific courses required for graduation. It is possible that teens failed Ohio's new test of academic skills, which is required for graduation, although this requirement was put in place too recently to affect more than a few teens in the research sample. Problems such as these might be alleviated with tutoring or remedial classes. It also might be easier for teens to clear these hurdles in the potentially more supportive environment offered by alternative school programs.

Providing still another potential explanation, it appears that some teens who completed the 11th grade successfully may have been drawn away from school, before graduating, by the chance to earn a GED or get a job. Programs like LEAP could explore options for reducing this temptation through changes in the incentive structure (such as the introduction of a graduation bonus, which is discussed below) or the provision of career counseling. Some teens may have left school prematurely because of a pregnancy or birth, which, until 1996, would have made these teens exempt from LEAP from the beginning of the second trimester of pregnancy until

three months after delivery. This, in turn, could prompt such a teen to leave school, which would cause her to fall behind academically, making it more difficult to return and graduate after the birth of her child. The previous report found that more than 25 percent of teens in the program group gave birth in the year preceding the three-year survey. All these teens would have been subject to the nine-month exemption described above, and many may have dropped out of school, although one cannot infer how many would have stayed in school (or graduated) had there been no pregnancy exemption. In 1996, ODHS eliminated the pregnancy exemption and reduced the length of the post-partum exemption from three months to six weeks. This change may reduce school dropout among LEAP teens who become pregnant.

Finally, special attention is warranted for dropouts who return to school because of LEAP or a similar financial incentives program. The results of this evaluation indicate that this group is at particularly high risk of making some academic progress but then failing to graduate from high school. Some of this attention must come from schools, which may need to accept more responsibility for the retention and academic progress of teen parents who are induced to go to school with financial incentives. Even though programs like LEAP may be successful in getting teen parents enrolled in school, this may yield little if there is not a safe and productive learning environment for these teens, enabling those who dropped out to catch up academically and helping those with small children to balance their responsibilities as students with their responsibilities as parents. Some evidence on the importance of the role of schools in this regard comes from the study of an enhanced version of LEAP that offered special school-based services to teen parents in some Cleveland high schools as a project within the LEAP evaluation. It was found that teens in the enhanced version attained higher high school graduation rates than teens who were subject to LEAP but did not have access to the added services (see Long, Wood, and Kopp, 1994).

D. Employment and Welfare Receipt

Even though improving employment outcomes and reducing welfare receipt were not immediate goals of the LEAP program, this study shows that LEAP was quite successful in these areas, especially for initially enrolled teens. For these teens, LEAP increased employment and earnings and reduced welfare receipt by amounts and percentages rivaling those found in evaluations of successful welfare-to-work programs for adults. Impacts on employment were greatest in the early part of the follow-up period, however, and more than half of all teens in the program group remained unemployed and on welfare at the end of four years, even though, by that time, relatively few LEAP teens were in school. This suggests the need to direct policy attention to the time after LEAP eligibility ends. In the new welfare environment (discussed more extensively below), work requirements and time limits may apply to teen parents soon after they leave programs like LEAP, necessitating a quick transition to increased self-sufficiency at the end of the LEAP program experience.

To prepare young welfare recipients for these demands, LEAP and other programs like it may have to adopt a somewhat different approach, combining their education message and incentives with more employment-oriented activities. Such activities would help teens in these programs enter employment more quickly after graduating or receiving a GED, thereby allowing

them to leave welfare more quickly, before reaching a possible time limit on welfare receipt.

Fortunately, the employment data presented in this report show that many teens work, even without an intervention that specifically tries to make them do so. Also, Chapter 4 showed that teens worked in one out of every four quarters in which they also earned a LEAP bonus, meaning that they were simultaneously employed and enrolled in school (and attending regularly). LEAP could build on these teens' apparent eagerness to work by offering opportunities for paid internships and part-time work during the summer and after school. If these opportunities were integrated into the program, LEAP's attractiveness to teens who want to combine school, part-time work, and welfare would be enhanced.

On the other hand, the welfare data presented in this report should give state welfare reformers cause for concern. Despite encouraging employment outcomes, and despite the fact that LEAP is one of the few programs in which welfare impacts were found for dropouts, 61.4 percent of all teens who entered the LEAP evaluation were receiving AFDC at the end of a four-year follow-up period. Among teens who were 19 or older when they entered the study (and who could have become subject to time limits and work requirements during the follow-up period), 55.9 percent were on welfare at the end of four years. Even though these teens were not subject to a time limit (and their behavior might have been different in the presence of one), these high sustained rates of welfare receipt suggest that many young families may ultimately lose their welfare benefits without having other means to support themselves. These teens' employment behavior would have to be dramatically different to prevent this from happening.

IV.   Recent Changes to the LEAP Program

In September 1996, the Ohio Department of Human Services (ODHS) began implementing revisions to the LEAP program that make many critical changes to the program's rules and incentives, as noted in Chapter 1. These changes were prompted in part by findings and recommendations presented in earlier reports on the LEAP evaluation. This section discusses these changes in the context of the research findings presented in this report.

As discussed above, LEAP's rules were changed to reduce the time that LEAP teens are exempt from the program owing to pregnancy and childbirth. This change substantially shortens the exemptions, prompting more teens to remain in school, but also increasing the potential burden on schools and case managers of having to serve larger numbers of pregnant teens and teens with very young children (for whom child care may be more difficult to find). LEAP teens who turn 20, or receive a high school diploma or a GED, are now required to participate in JOBS under JOBS participation requirements. They are not exempt from those requirements if they are pregnant or if they have a child over 6 weeks old.

Also, the former LEAP requirement that every participant attend an education activity was relaxed somewhat. Experience with the program made it clear that it often is neither feasible nor desirable to place long-term dropouts who are not of compulsory school age into low grade levels that fit their academic skills (e.g., placing an 18-year-old in the 7th grade). To address this

issue, ODHS included the provision that if no appropriate education activity can be found for teens age 18 and over, they will be transferred to the JOBS program and will be subject to JOBS participation requirements.

ODHS also expanded LEAP's bonus and sanction system. Originally, the LEAP program rewarded participants only for enrollment (once per school year) and attendance. Concerns about limited school completion impacts uncovered earlier in this evaluation prompted program revisions that include bonuses for the completion of education goals as well as for enrollment and attendance. Teens receive a bonus of $62 upon the successful completion of a grade level, except grade 12, and $200 upon the receipt of a high school diploma or a GED. Grade completion bonuses will not be awarded to LEAP teens who enroll in GED programs instead of regular high school. This creates an incentive for teens to remain in regular high school, which may take more time and effort on their behalf, but is also shown to have greater long-term economic benefits.

LEAP's sanctioning system was expanded to address the problem that a number of teens (especially those out of school for some time) simply accepted a string of $62 sanctions for lack of enrollment or poor attendance rather than change their behavior. Under the modified rules, case managers are required to contact teens who have two consecutive sanctions to discuss and resolve any issues or barriers that may interfere with the teen's compliance. However, unless the teen is subsequently exempted, the entire cash grant paid on behalf of the teen and her children is eliminated after six consecutive months of sanctions. Even though the teen will no longer receive cash assistance at that point, she will still be considered an AFDC recipient for all other purposes, and she will remain eligible for Medicaid. As mentioned above, these progressive sanctions are expected to increase participation among formerly noncooperative teens. It is too early to know whether this is increasing school attendance or resulting in teens' losing all cash benefits, with potentially severe consequences for them and their children.

Finally, LEAP plans to operate "enhanced case management" programs, on a pilot basis in a few counties, in addition to LEAP's regular case management. The enhanced case management will be school-based or home-based. These alternative approaches will be an important addition to the LEAP program, addressing the problem of reaching teens whose personal problems stand in the way of their compliance with LEAP's requirements. The experimental nature of these changes can make an important contribution to the evolving body of literature on case management models for teen parents. Thus far, the literature has shown few success stories. By systematically testing alternative approaches for the same general population of teens, the LEAP program will be in a position to produce useful findings on case management for teen parents.

V.   Broader Lessons for Welfare Policy and Teen Parent Programs

The 1996 federal welfare law — the Personal Responsibility and Work Opportunity Reconciliation Act — has important implications for teen parents who receive (or will in the future receive) welfare. It ends the federal welfare entitlement, devolves responsibility for the develop-

ment of welfare policy and programs to the states, and imposes many specific restrictions on receipt of federal cash assistance. The latter include live-at-home and stay-in-school requirements for teens under the age of 18 (i.e., states may not spend federal funds on behalf of these teens unless they live in an adult-supervised setting and are enrolled in school) and a five-year lifetime limit on receipt of federal cash assistance. This time limit does not apply to teens who do not have their own case, but they become subject to it as soon as they get their own case. Also, the new legislation strongly encourages states to implement work requirements for all able-bodied adults who have received cash assistance for more then two years.[4]

These new responsibilities and requirements pose an important challenge for policymakers concerned with state programs for teen parents on welfare. The LEAP evaluation holds important lessons. The results show that it is possible to get large numbers of teen parents to enroll in school, but that it is more difficult to keep them there and to increase their school completion rates. Even a substantial economic incentive, coupled with special case management services, will fail to affect many teens. Partly this may reflect these teens' resistance to going to school, which for many may have been a problem even before they became parents and began receiving welfare. Partly, the difficulty of changing these teens' behavior reflects the competing demands in their lives, having to be a mother (or father) at home, while being an attentive student in school. And partly it reflects their young age. But even when academic difficulties are overcome and competing roles and responsibilities are reconciled, concerns about money, safety, rent, food, and child care pose persistent problems for these teens, interfering with their progress in school. To more successfully serve teen parents in these programs, policymakers and program developers must find ways to address these problems, by enhancing case management and by improving the school environment and child care services available to these teens.

One way to make these programs more effective is to better address the specific needs of distinct groups of teen parents. What works for a 17-year-old who is still enrolled in school and has only one more year to go may not work for a 19-year-old dropout who has been out of school for three years, has two children, and will age out of LEAP within a year. Teens who first gave birth when they were 15 may need different services and may respond to incentives in a less mature way than teens who became pregnant and began receiving AFDC when they were 18. This report addressed these distinctions and found that LEAP's effectiveness varied a great deal depending on who was being served. More than is currently the case, policies and programs for teen parents should reflect the variation within this group, providing more tailored services and incentives to specific groups of these teens.

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[4]Ohio's answer to the new federal legislation is a program called Ohio FIRST, which started in July 1996 (see Tompkins, 1996). This program, which preceded the federal legislation, includes a three-year time limit for JOBS-mandatory AFDC recipients and a stay-in-school requirement for teen welfare recipients who are not LEAP-eligible, which extends to 19-year-olds, as opposed to the federal law, which proposes to end this requirement as soon as the teen becomes 19. The Ohio FIRST Program includes a "Self-Sufficiency Contract," which all welfare recipients who are 18 or older are required to sign and whose conditions are enforced with strict sanctions. For LEAP-mandatory teens, the contract encompasses the teens' school requirements. The Ohio FIRST Program also includes increased earned income disregards, which are designed to make combining work and welfare more attractive by allowing welfare recipients to keep a greater share of their earnings. Ohio anticipates incorporating elements of this program into a new program, Ohio Works First, during the summer of 1997.

Appendix A

Supplementary Tables to Chapter 2

Table A.1

Selected Characteristics of the LEAP Research Sample at the
Time of Random Assignment, by Research Group

Characteristic at Random Assignment	Program Group	Control Group
Age in years (%)		
15 or less	12.0	12.4
16	16.5	16.5
17	25.3	27.7
18	35.7	32.2
19	10.6	11.3
Average age in years	17.57	17.61
Female (%)	98.3	97.8
Schooling status (%)		
Enrolled in high school, middle school, or a GED program	54.2	52.7
Out of school less than 1 year	19.1	20.3
Out of school at least 1 year		
but less than 2 years	14.4	14.3
Out of school 2 years or more	11.5	11.1
Average number of months since last attended school (nonenrolled teens only)	16.53	15.82
Average highest grade completed	9.58	9.46 **
AFDC case status (%)		
Head of own AFDC case	58.3	55.2
On parent's AFDC case	35.0	38.0
On another's AFDC case	6.8	6.8
Ethnicity (%)		
Black	55.3	55.7
White	39.2	39.3
Hispanic	2.9	3.3
Other	0.8	0.2
Marital status (%)		*
Single, never married	91.1	89.1
Currently married	5.1	5.5
Divorced, separated, or widowed	2.5	2.9
Number of children (%)		
0	18.6	20.3
1	69.0	66.1
2 or more	8.5	8.8

(continued)

Characteristic at Random Assignment	Program Group	Control Group
Average number of children	0.91	0.89
Average age of youngest child in months[a]	7.50	7.28
Average age of oldest child in months[a]	9.55	9.43
Received any earnings during the prior 12 months (%)	16.2	15.5 **
Sample size	3,479	672

SOURCE: MDRC calculations using Teen Parent Information Sheets.

NOTES: A chi-square test or an F-test was applied to differences in baseline characteristics by research group.
        Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent, indicating the statistical significance of differences in individual measures or groups of mutually exclusive categories.

        All control group numbers are weighted to account for variation in the random assignment ratio across counties.

        [a]Excludes teens who reported having no children at the time of random assignment or for whom birthdate information for their children was incomplete.

Selected Characteristics of the Teens in the LEAP Three-Year Survey Sample at the Time of Random Assignment, by Initial School Enrollment Status

| | | Initial School Enrollment Status[a] | |
| | | Sample Members Enrolled in High School or in a GED Program at | Sample Members Not Enrolled in High School or in a GED Program at |
Characteristic at Random Assignment	All Sample Members	Random Assignment	Random Assignment
Age in years (%)			
15 or less	12.7	19.2	3.9
16	18.6	23.0	12.7
17	25.8	27.3	23.8
18	31.9	25.0	41.2
19	11.0	5.5	18.4
Average age in years	17.53	17.13	18.06
Female (%)	98.7	98.5	99.0
Schooling status (%)			
Enrolled in high school, middle school,			
or a GED program	57.7	100.0	n/a
Out of school	42.3	n/a	100.0
Out of school for 2 years or more (%)	8.2	n/a	19.4
Average number of months since last attended			
school (nonenrolled teens only)	15.15	n/a	15.15
Average highest grade completed	9.54	9.61	9.44
AFDC case status (%)			
Head of own AFDC case	53.7	41.6	70.2
On parent's AFDC case	40.2	52.0	24.1
On another's AFDC case	6.1	6.5	5.7
Ethnicity (%)			
Black	66.5	75.9	53.6
White	30.6	21.4	43.0
Hispanic	2.2	1.9	2.6
Other	0.8	0.8	0.8
Marital status (%)			
Single, never married	93.5	96.6	89.4
Currently married	4.4	3.0	6.2
Divorced, separated, or widowed	2.1	0.4	4.4
Number of children (%)			
0	20.6	26.6	12.4
1	71.0	69.4	73.1
2 or more	8.4	4.0	14.5

(continued)

Characteristic at Random Assignment	All Sample Members	Initial School Enrollment Status[a]	
		Sample Members Enrolled in High School or in a GED Program at Random Assignment	Sample Members Not Enrolled in High School or in a GED Program at Random Assignment
Average number of children	0.88	0.78	1.03
Average age of youngest child in months[b]	8.51	8.11	8.96
Average age of oldest child in months[b]	10.62	8.98	12.50
Received any earnings during the prior 12 months (%)	14.0	13.9	14.2
County (%)			
Cuyahoga	38.1	39.8	35.8
Franklin	21.4	22.0	20.5
Hamilton	21.7	17.8	26.9
Lawrence	1.0	1.3	0.5
Lucas	9.4	10.6	7.8
Muskingum	2.2	2.1	2.3
Stark	6.2	6.3	6.2
Sample size	913	527	386

SOURCE: MDRC calculations using Teen Parent Information Sheets.

NOTES: N/a means that the item is not applicable.

[a]"Enrollment" is defined as attending high school, middle school, or a GED program at the time of random assignment.

[b]Excludes teens who reported having no children at the time of random assignment or for whom birthdate information for their children was incomplete.

Appendix B

A Comparison of Earnings and Employment Data from the
LEAP Three-Year Survey and Unemployment Insurance (UI)
Earnings Records

This appendix compares earnings and employment data from two different sources: the LEAP three-year survey and the State of Ohio Unemployment Insurance (UI) system. The sample used for this comparison is the three-year survey sample, which comprises 913 teens from the seven Tier 1 counties in the evaluation.[1] The purpose of this comparison is to assess the quality and consistency of the employment data used in this report and to understand the possible biases in estimated program effects resulting from discrepancies between the two data sources.

I.   Potential Problems Associated with Survey and UI Data

Different potential problems are associated with employment and earnings data obtained from surveys and administrative databases. Survey data may be subject to recall bias and intentional over- or underreporting of earnings and employment activity by respondents. Although Unemployment Insurance earnings data are not subject to these particular problems, they may misrepresent sample members' employment activity because of matching errors (owing to bad identifiers) and underreporting of earnings by employers, and because they do not cover off-the-books employment, out-of-state employment, and employment in certain types of businesses and occupations (most notably self-employment). In a study like the LEAP evaluation, which relies on random assignment, it is important to understand the extent to which discrepancies between the two data sources vary across the program and control groups. If the program were to somehow create a *differential* bias in employment outcomes obtained from either one of the two data sources, this could influence the experimental comparison of outcomes across the two research groups, thereby creating a bias in the reported impacts.

II.   Analysis Strategy

Quarterly earnings data for each teen in the three-year survey sample were available from the UI system for three and a half years following their second quarter after random assignment (quarters 3–16). The three-year survey was fielded from February to July 1994. Its information on teens' employment and earnings was limited to the year preceding the survey. Self-reported earnings data from this period were compared to data collected from the UI system for the same quarters. In order to match the calendar quarters of the UI data using only complete months, the first calendar month of the year preceding the interview date was excluded, leaving three full calendar quarters of survey information for each teen. This analysis compares the earnings and

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[1]Cuyahoga, Franklin, Hamilton, Lawrence, Lucas, Muskingum, and Stark.

employment data reported in the survey with the corresponding UI data for each of these three quarters.

Because the survey was fielded over a period of months, the quarters of available survey data vary by sample member. They range from the second quarter of 1993 through the second quarter of 1994. The only calendar quarter with complete survey and UI data for each sample member is the fourth quarter of 1993. The analysis for each quarter uses data about a different number of teens, as described in the following table:

Quarter	Number of Teens
Q2 1993	588
Q3 1993	888
Q4 1993	913
Q1 1994	325
Q2 1994	25

The measures used for the analysis were "quarterly earnings" (total earnings during the three months of each calendar quarter) and "ever employed" (in each quarter). Each of these measures was calculated for each data source during each period.

III. Results

As Table B.1 shows, employment data from the two files matched for at least 75 percent of the teens in each of the quarters. This is comparable to match rates in other MDRC evaluations.[2] In quarters 3 and 4 of 1993, the match rate for program group members was significantly lower than the match rate for control group members. In both quarters, program group members were somewhat more likely to have reported employment from either survey or UI data only.

Interestingly, employment rates estimated from Unemployment Insurance data were generally higher than employment rates estimated from the survey. Apparently, teens were more likely to underreport legitimate employment on the three-year survey than they were to work in jobs that were not covered by Unemployment Insurance.

Table B.2 examines discrepancies in earnings reported on the two data sources (only for sample members for whom employment was reported on both data sources in the same quarter). These discrepancies are more pronounced than those found for the employment rates. Only around 10 percent of employed respondents in each quarter had reported quarterly earnings from both data sources that fell within $100 of each other. On average, earnings reported on the survey were somewhat greater, possibly because teens may have had earnings from multiple jobs in the same quarter, some of which were covered by Unemployment Insurance, whereas others were not. It is also possible that teens included tips and other irregular earnings in their survey estimates, which again were not captured by the UI data.

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[2]See, e.g., Kristen Harknett, "Survey vs. UI data QC Tables," internal MDRC memo, July 15, 1993.

Table B.1

**Comparison of Survey-Reported and UI-Reported Employment for the
LEAP Three-Year Survey Sample**

Calendar Quarter	Sample Size	Match Rate (%)	Employment Reported Only in (%)		Match Rate (%)		
			Survey	UI Data	Program Group	Control Group	
1993Q2	588	77.4	9.7	12.9	75.9	78.9	
1993Q3	888	77.1	9.5	13.4	73.7	80.4	*
1993Q4	913	76.2	7.8	16.0	72.2	80.1	**
1994Q1	325	84.3	3.4	12.3	83.7	84.8	
1994Q2	25	76.0	0.0	24.0	75.0	76.9	

SOURCES: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records and the LEAP three-year survey.

NOTES: The statistical significance of differences in the match rate across the program and control groups was measured using a chi-square test. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table B.2

Comparison of Survey-Reported and UI-Reported Employment for the LEAP Three-Year Survey Sample
(For Those with Reported Employment on Both Data Sources)

Calendar Quarter	Sample Size	No More Than $100 Difference Between Survey and UI Data (%)	Quarterly Earnings Greater on Survey by (%):		Quarterly Earnings Greater in UI Data by (%):		Mean Difference[a] ($) (Survey minus UI)
			$101-$500	$501 or more	$101-$500	$501 or more	
1993Q2	90	10.0	24.7	40.4	12.4	12.4	102
1993Q3	155	9.0	27.3	35.1	13.6	14.9	95
1993Q4	190	9.1	24.9	32.3	16.4	17.5	18
1994Q1	61	14.7	11.5	47.5	16.4	9.8	73
1994Q2	3	n/a	n/a	n/a	n/a	n/a	149

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records and the LEAP three-year survey.

NOTES: N/a means that the item is not applicable.

[a]Includes sample members reporting no employment in a quarter.

The last column of Table B.2 summarizes the discrepancy in quarterly earnings. These figures average positive and negative differences and include mismatches in reported employment. Depending on the quarter, survey earnings averaged between $18 and $149 higher than UI reported earnings. These figures also were compared across the two research groups (not shown in the table). Only in the third quarter of 1993 was the program-control group difference in the earnings discrepancy statistically significant, with the average control group member reporting $146 greater earnings on the survey, and the average program group member reporting only $42 more. This suggests that teens in the program group were more likely to work in UI-covered employment. In the other quarters, program group members also recorded smaller discrepancies than control group members, although those differences were not statistically significant.

Appendix C

Supplementary Table to Chapter 3

Table C.1

Program Group Members' Eligibility for LEAP and Rates of Bonuses and Sanctions for Eligible Program Group Members in Months 19-49 After Random Assignment

Month After Random Assignment	Percentage of Program Group Members Eligible for LEAP in the Month	Percentage of Those Eligible for LEAP in the Month Who Received a Bonus	Percentage of Those Eligible for LEAP in the Month Who Received a Sanction
19	54.3	15.7	21.7
20	50.7	16.5	23.2
21	48.9	15.8	23.0
22	43.3	17.6	25.1
23	40.8	16.7	27.3
24	38.3	15.0	27.6
25	34.5	14.5	28.6
26	33.0	13.5	26.2
27	30.5	12.2	27.1
28	29.1	13.1	27.0
29	27.4	15.3	27.3
30	26.5	17.1	26.5
31	24.0	18.0	26.8
32	23.1	16.7	27.0
33	21.5	16.4	31.1
34	19.5	17.1	30.1
35	18.4	15.9	30.0
36	17.3	16.1	33.5
37	16.4	16.0	33.2
38	16.6	13.7	29.8
39	15.5	14.1	30.3
40	14.3	13.6	31.0
41	13.9	17.6	34.7
42	12.8	16.2	33.3
43	12.3	15.6	34.7
44	9.4	18.6	42.1
45	9.2	17.5	37.5
46	8.1	21.7	37.4
47	7.4	20.6	37.7
48	6.5	21.2	38.9
49	6.3	17.4	40.3
Sample size[a]	446	3,479	3,479

SOURCES: MDRC calculations using data from Teen Parent Information Sheets, the LEAP three-year survey, and Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Rates of bonuses and sanctions presented in this table were calculated using data for 3,479 program group members randomly assigned between mid-August 1990 and September 1991. LEAP eligibility rates were calculated using data for 446 program group members randomly assigned between mid-August 1990 and September 1991 for whom three-year survey data were available.

[a]Data for months 19 to 25 were not available for all program group members because of the gradual implementation of the CRIS-E computer system. Rates of receipt of bonuses and sanctions were estimated for the subset of program group members for whom CRIS-E data were available in those months. The size of this subset grew as follows: 2,903 in month 19; 3,056 in month 20; 3,194 in month 21; 3,279 in month 22; 3,352 in month 23; 3,415 in month 24; and 3,458 in month 25.

Appendix D

Supplementary Tables to Chapter 4

Table D.1

Percentage of LEAP Control Group Members Employed in Each Quarter or Ever Employed in Quarters 3-16 After Random Assignment

Quarter After Random Assignment	Percentage Employed in Quarter	Percentage Ever Employed Since Quarter 3
Quarter 3	15.1	15.1
Quarter 4	18.8	24.2
Quarter 5	20.7	32.1
Quarter 6	20.8	37.4
Quarter 7	20.7	41.7
Quarter 8	23.1	45.8
Quarter 9	26.0	50.7
Quarter 10	29.6	55.5
Quarter 11	31.8	59.7
Quarter 12	30.6	62.5
Quarter 13	32.4	66.2
Quarter 14	35.8	69.0
Quarter 15	38.4	73.7
Quarter 16	39.0	76.5
Sample size	672	

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

Table D.2

Percentage of LEAP Control Group Members Ever Employed Since Quarter 3 After Random Assignment, by Initial School Enrollment Status

| | Initial School Enrollment Status[a] | |
| | Sample Members Enrolled in High School or in a GED Program at Random | Sample Members Not Enrolled in High School or in a GED Program at Random |
Quarter After Random Assignment	Assignment (%)	Assignment (%)
Quarter 3	13.3	17.1
Quarter 4	23.0	25.4
Quarter 5	31.6	32.4
Quarter 6	36.7	38.1
Quarter 7	40.9	42.4
Quarter 8	45.1	46.3
Quarter 9	50.3	50.7
Quarter 10	57.8	52.5
Quarter 11	63.0	55.4
Quarter 12	66.1	58.0
Quarter 13	70.8	60.5
Quarter 14	73.8	63.0
Quarter 15	78.6	67.5
Quarter 16	80.2	71.7
Sample size	355	317

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

[a]"Enrollment" is defined as attending high school, middle school, or GED classes at the time of random assignment.

Table D.3

**LEAP Control Group Members' Average Quarterly Earnings in
Quarters 3-16 After Random Assignment**

Quarter After Random Assignment	Average Quarterly Earnings ($)	Average Quarterly Earnings for Those Employed in Quarter ($)
Quarter 3	98	650
Quarter 4	147	779
Quarter 5	172	833
Quarter 6	179	859
Quarter 7	192	927
Quarter 8	239	1,033
Quarter 9	256	983
Quarter 10	314	1,060
Quarter 11	337	1,061
Quarter 12	366	1,196
Quarter 13	387	1,195
Quarter 14	418	1,167
Quarter 15	486	1,265
Quarter 16	568	1,457
Sample size	672	

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

Table D.4

Quarterly Employment Rates of the LEAP Research Sample in
Quarters 3-16 After Random Assignment

Quarter After Random Assignment	Program Group (%)	Control Group (%)
Quarter 3	17.1	15.2
Quarter 4	20.8	19.2
Quarter 5	22.6	20.9
Quarter 6	22.9	21.0
Quarter 7	23.5	20.9
Quarter 8	25.4	23.6
Quarter 9	27.1	26.4
Quarter 10	28.5	30.2
Quarter 11	29.5	32.5
Quarter 12	31.9	31.3
Quarter 13	34.5	32.8
Quarter 14	37.2	36.0
Quarter 15	38.0	38.9
Quarter 16	39.9	39.4
Sample size	3,479	672

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes. Employment and earnings data for quarters 1 and 2 were not available for this analysis.

Table D.5

LEAP's Four-Year Impacts on Employment and Earnings, by County

County	Sample Size	Number of Quarters Employed, Quarters 3-16		Within-County Impact	p[a]	Between-Counties Impact Difference p[a]
		Program Group	Control Group			
						0.965
Cuyahoga	1,155	3.49	3.44	0.05	0.842	
Franklin	618	4.47	4.43	0.04	0.919	
Hamilton	578	4.57	4.44	0.13	0.715	
Montgomery	350	4.28	3.75	0.53	0.575	
Lucas	318	3.94	3.56	0.38	0.456	
Lorain	306	3.98	4.44	-0.46	0.628	
Summit	291	4.60	4.82	-0.22	0.794	
Stark	193	4.35	3.14	1.21 *	0.062	
Trumbull	167	3.43	3.59	-0.16	0.867	
Jefferson	70	1.22	0.96	0.26	0.889	
Muskingum	66	4.90	4.67	0.23	0.840	
Lawrence	39	1.69	0.88	0.81	0.612	

County	Sample Size	Total Earnings, Quarters 3-16 ($)		Within-County Impact	p[a]	Between-Counties Impact Difference p[a]
		Program Group	Control Group			
						0.935
Cuyahoga	1,155	3,428	3,334	94	0.874	
Franklin	618	5,137	5,854	-717	0.357	
Hamilton	578	4,916	3,687	1,229	0.138	
Montgomery	350	4,558	3,795	763	0.720	
Lucas	318	3,787	3,417	370	0.748	
Lorain	306	5,623	6,449	-826	0.699	
Summit	291	5,048	5,483	-435	0.820	
Stark	193	5,688	3,845	1,842	0.207	
Trumbull	167	4,231	4,966	-735	0.736	
Jefferson	70	1,535	476	1,059	0.799	
Muskingum	66	7,502	7,091	411	0.873	
Lawrence	39	1,453	1,767	-314	0.930	
Sample size	4,151	3,479	672			

(continued)

Table D.5 (continued)

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-county impact. The statistical significance of differences in impacts across the 12 counties was tested with an F-test. The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table D.6

LEAP's Four-Year Impacts on Employment and Earnings, by County and Initial School Enrollment Status

| County | Sample Size | Number of Quarters Employed, Quarters 3-16 | | Within-County Impact | p^a | Between-Counties Impact Difference p^a |
		Program Group	Control Group			
Sample Members Enrolled in High School or in a GED Program at Random Assignment						
						0.868
Cuyahoga	635	3.87	3.47	0.40	0.276	
Franklin	314	5.08	4.60	0.48	0.331	
Hamilton	309	5.15	4.74	0.41	0.450	
Lucas	203	4.29	4.12	0.17	0.803	
Summit	197	4.85	5.34	-0.49	0.621	
Montgomery	176	4.65	2.60	2.05	0.145	
Lorain	157	3.99	2.12	1.87	0.187	
Stark	95	4.80	3.93	0.87	0.339	
Trumbull	93	3.66	5.02	-1.36	0.317	
Muskingum	42	4.93	4.49	0.44	0.773	
Jefferson	28	1.29	3.97	-2.68	0.475	
Lawrence	23	1.57	1.52	0.05	0.977	

| County | Sample Size | Total Earnings, Quarters 3-16 ($) | | Within-County Impact | p^a | Between-Counties Impact Difference p^a |
		Program Group	Control Group			
Sample Members Enrolled in High School or in a GED Program at Random Assignment						
						0.854
Cuyahoga	635	3,767	3,166	600	0.438	
Franklin	314	6,291	6,444	-153	0.885	
Hamilton	309	5,826	4,056	1,770	0.124	
Lucas	203	4,047	4,099	-52	0.972	
Summit	197	5,483	5,426	58	0.978	
Montgomery	176	4,742	1,941	2,801	0.349	
Lorain	157	5,057	1,253	3,805	0.205	
Stark	95	5,579	5,233	346	0.857	
Trumbull	93	4,253	7,554	-3,301	0.252	
Muskingum	42	7,748	9,808	-2,060	0.523	
Jefferson	28	991	1,551	-560	0.944	
Lawrence	23	1,202	2,762	-1,560	0.692	
Sample size	2,272	1,917	355			

(continued)

Table D.6 (continued)

| County | Sample Size | Number of Quarters Employed, Quarters 3-16 | | Within-County Impact | p[a] | Between-Counties Impact Difference p[a] |
		Program Group	Control Group			
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment						
						0.469
Cuyahoga	520	3.04	3.39	-0.35	0.359	
Franklin	304	3.81	4.27	-0.46	0.338	
Hamilton	269	3.91	4.06	-0.15	0.769	
Montgomery	174	3.92	4.67	-0.75	0.557	
Lorain	149	3.99	6.50	-2.51 **	0.050	
Lucas	115	3.35	2.61	0.74	0.337	
Stark	98	3.94	2.24	1.70 *	0.071	
Summit	94	4.07	3.23	0.84	0.643	
Trumbull	74	3.09	2.28	0.81	0.563	
Jefferson	42	1.13	0.18	0.95	0.653	
Muskingum	24	4.84	5.01	-0.17	0.923	
Lawrence	16	1.64	0.34	1.30	0.719	

| County | Sample Size | Total Earnings, Quarters 3-16 ($) | | Within-County Impact | p[a] | Between-Counties Impact Difference p[a] |
		Program Group	Control Group			
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment						
						0.676
Cuyahoga	520	3,026	3,497	-471	0.611	
Franklin	304	3,915	5,325	-1,410	0.222	
Hamilton	269	3,844	3,199	645	0.595	
Montgomery	174	4,380	5,232	-853	0.781	
Lorain	149	6,235	10,825	-4,591	0.134	
Lucas	115	3,384	2,286	1,098	0.551	
Stark	98	5,774	2,193	3,580	0.111	
Summit	94	4,139	6,326	-2,187	0.611	
Trumbull	74	4,144	2,590	1,554	0.643	
Jefferson	42	1,883	491	1,392	0.784	
Muskingum	24	6,987	3,526	3,461	0.415	
Lawrence	16	1,506	521	984	0.910	
Sample size	1,879	1,562	317			

(continued)

SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991 for whom there were 14 quarters of follow-up data, including those with values of zero for outcomes.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-county impact. The statistical significance of differences in impacts across the 12 counties was tested with an F-test. The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix E

Comparing Employment Impacts for the Survey Sample and the Research Sample

The previous report presented employment and earnings impacts, as measured with three-year survey data for the seven-county survey sample of 913 teens.[1] That analysis found that LEAP had a substantial impact on the percentage of teens who were employed in the three months prior to the three-year survey interview. For the full sample, employment increased by 5.5 percentage points, and for initially enrolled teens, the increase was 11.5 percentage points, a substantial increase compared with the employment rate among initially enrolled control group members, which was 27.4 percent. The employment impacts presented in the current report were based on state Unemployment Insurance (UI) earnings records, and, by the end of the third year of follow-up, were more modest. This appendix explores this apparent discrepancy, focusing exclusively on initially enrolled teens (527 of the 913 teens in the three-year survey sample), who experienced most of the impacts presented in the previous report.

There are several reasons why employment impacts estimated with survey data could be different from employment impacts estimated from UI earnings records. First, as discussed in Appendix B, these data sources contain somewhat different measures of employment, with UI data capturing only employment that is covered by Unemployment Insurance, and survey data capturing only jobs and wages as respondents remember them. To the extent that the differences between these two data sources are correlated with the teens' random assignment status (i.e., program group or control group), these discrepancies could cause employment impacts to look different as well.

Second, it is possible that impacts were different not because of discrepancies in the employment measures, but because of differences in impacts experienced by different samples. The survey included only 913 respondents in 7 counties, whereas administrative records data include 4,151 teens in 12 counties. Differences across the counties and differences between survey respondents and nonrespondents could account for the discrepancies that were found.

This appendix explores each of these possibilities by comparing impact estimates, produced with UI data, for four different samples of initially enrolled teens, as defined in Figure E.1.

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[1]Long et al., 1996, p. 75.

Figure E.1

Four Samples of Initially Enrolled Teens

Research sample
(2,272 teens in
12 counties)

3-year survey sample
(527 teens in the
7 Tier 1 counties)

I   II   III   IV

7-county (Tier 1)
subsample of the 12-county
research sample (1,621
teens)

Fielded 3-year survey sample
(655 teens in the 7 Tier 1 counties,
including nonrespondents)
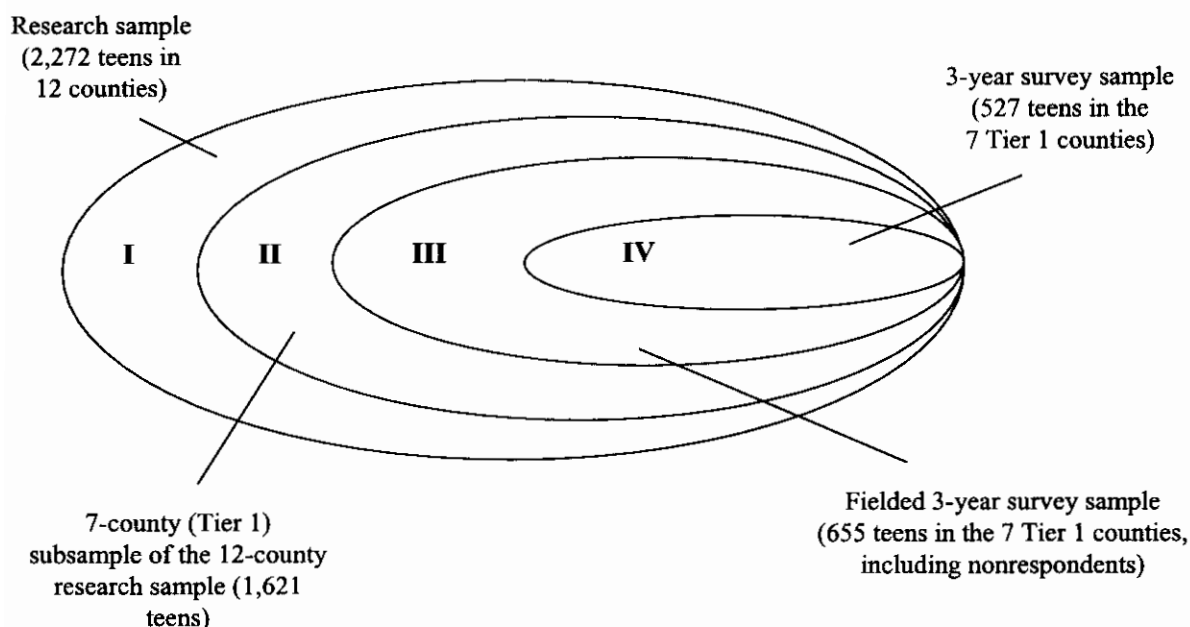
Figure E.2 shows impacts on the overall employment rate for quarters 11–14 for these four samples of initially enrolled teens.[2] Two findings emerge from this figure. First, it appears that discrepancies in the employment impacts are unrelated to the data sources used. The estimated impact for the three-year survey sample used in the 1996 report (sample IV) remains large and exceeds any of the other impacts presented, even when measured with UI data instead of survey data. This is reassuring because it means that the change in data sources (from survey to UI data) between the 1996 and 1997 reports did not change the impact story for the three-year survey sample featured in the 1996 report. On the other hand, the change in the sample used clearly did affect the impact estimates. Impacts decline as the sample grows. Impacts for the 12-county research sample (I) were smaller than impacts for the 7-county research sample (II), which, in turn, were exceeded by the impacts for the fielded survey sample (III). The difference between samples II and III is especially interesting, because sample III includes the same control group members as sample II and a *random* subsample of program group members from sample II. Therefore, the difference in impacts between these two samples reflects the effect of random error (a "bad draw" in creating the fielded survey sample). Finally, differences between samples III and IV, which would have reflected nonresponse bias in the survey, were minor, which also is reassuring.

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[2]A four-quarter employment rate was used to compare impacts, because this measure is more stable than quarterly estimates, making random variation less of a factor in this comparison.

Figure E.2

Employment Rates in Quarters 11-14 for Samples of Teens in the LEAP Evaluation Who Were Enrolled in High School or in a GED Program at Random Assignment
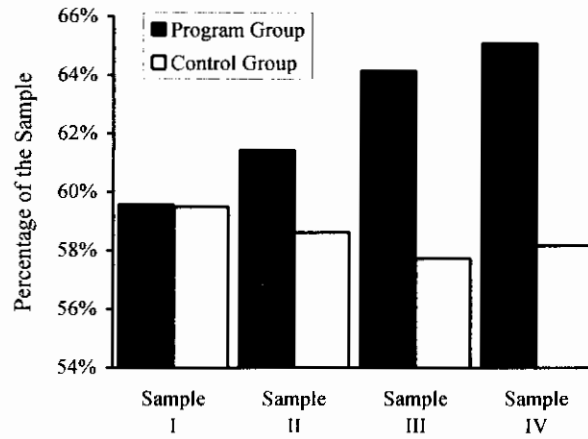
SOURCE: MDRC calculations using data from Ohio Unemployment Insurance (UI) earnings records.

NOTE: The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment.

Appendix F

Supplementary Tables to Chapter 5

Table F.1

Percentage of LEAP Control Group Members Who Received AFDC and Percentage Who Ever Left AFDC Since Quarter 9 After Random Assignment

Quarter After Random Assignment	Percentage Who Received AFDC in Quarter	Percentage Who Ever Left AFDC Since Quarter 9
Quarter 9	79.1	20.9
Quarter 10	77.5	25.8
Quarter 11	78.2	28.9
Quarter 12	72.1	35.6
Quarter 13	70.4	41.5
Quarter 14	68.6	47.2
Quarter 15	65.2	52.9
Quarter 16	60.9	58.7
Sample size	672	

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

Table F.2

Number of Months LEAP Control Group Members Received AFDC in Years 3 and 4 (Quarters 9-16) After Random Assignment

Number of Months of AFDC Receipt	Percentage of Control Group
0	11.8
1	0.7
2	1.7
3	0.8
4	0.8
5	1.1
6	1.7
7	1.0
8	1.1
9	1.3
10	2.4
11	4.0
12	2.2
13	1.8
14	3.1
15	3.1
16	3.2
17	3.7
18	2.8
19	3.3
20	3.5
21	4.6
22	5.0
23	6.7
24	29.0
Sample size	672

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

Percentage of LEAP Control Group Members Who Received AFDC in Years 3 and 4 (Quarters 9-16) After Random Assignment, by Initial School Enrollment Status

Quarter After Random Assignment	Initial School Enrollment Status[a]		Difference	Percentage Change	p-value[b]
	Sample Members Enrolled in High School or in a GED Program at Random Assignment (%)	Sample Members Not Enrolled in High School or in a GED Program at Random Assignment (%)			
Quarter 9	80.0	77.8	2.2	2.8	0.957
Quarter 10	78.2	76.9	1.3	1.7	0.878
Quarter 11	79.7	77.0	2.7	3.5	0.938
Quarter 12	74.7	69.5	5.2	7.5	0.637
Quarter 13	73.5	67.5	6.1	9.0	0.584
Quarter 14	69.9	67.8	2.1	3.1	0.615
Quarter 15	66.9	63.8	3.1	4.9	0.919
Quarter 16	62.6	58.9	3.7	6.2	0.461
Sample size	355	317			

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 672 control group members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]"Enrollment" is defined as attending high school, middle school, or GED classes at the time of random assignment.

[b]A two-tailed t-test was applied to each regression-adjusted difference between average program and control group outcomes. The column labeled "p" is the statistical significance level of the difference between program and control group outcomes. That is, p is the probability that average outcomes differ only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table F.4

**Number of Months the LEAP Research Sample Received AFDC in
Years 3 and 4 (Quarters 9-16) After Random Assignment**

Number of Months of AFDC Receipt	Percentage of Program Group	Percentage of Control Group
0	14.3	11.8
1	1.2	0.7
2	1.0	1.7
3	1.2	0.8
4	1.2	0.8
5	1.7	1.1
6	1.7	1.7
7	1.6	1.0
8	1.6	1.1
9	1.9	1.3
10	2.0	2.4
11	3.0	4.0
12	2.1	2.2
13	2.4	1.8
14	2.2	3.1
15	2.6	3.1
16	2.6	3.2
17	3.8	3.7
18	3.4	2.8
19	3.8	3.3
20	3.3	3.5
21	3.8	4.6
22	4.7	5.0
23	8.4	6.7
24	24.7	29.0
Sample size	3,479	672

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes. AFDC data for years 1 and 2 (quarters 1-8) were not available for this analysis.

Table F.5

LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16), by County

County	Sample Size	Number of Months On AFDC, Quarters 9-16 Program Group	Control Group	Within-County Impact	p^a	Between-Counties Impact Difference p^a
						0.419
Cuyahoga	1,155	17.80	17.41	0.39	0.529	
Franklin	618	15.31	16.69	-1.38 *	0.086	
Hamilton	578	15.23	16.66	-1.43 *	0.095	
Montgomery	350	14.66	16.67	-2.01	0.363	
Lucas	318	13.98	14.57	-0.59	0.620	
Lorain	306	13.00	15.75	-2.75	0.214	
Summit	291	14.03	13.42	0.61	0.758	
Stark	193	12.99	13.34	-0.35	0.815	
Trumbull	167	12.24	15.83	-3.59	0.112	
Jefferson	70	14.91	12.86	2.05	0.633	
Muskingum	66	10.76	6.90	3.86	0.147	
Lawrence	39	12.40	11.63	0.77	0.835	

County	Sample Size	AFDC Amount Received, Quarters 9-16 ($) Program Group	Control Group	Within-County Impact	p^a	Between-Counties Impact Difference p^a
						0.361
Cuyahoga	1,155	6,166	6,056	110	0.624	
Franklin	618	5,135	5,690	-555 *	0.060	
Hamilton	578	5,157	5,607	-451	0.152	
Montgomery	350	5,113	6,170	-1,057	0.191	
Lucas	318	4,684	4,870	-186	0.671	
Lorain	306	4,389	4,912	-523	0.518	
Summit	291	4,650	4,432	218	0.763	
Stark	193	4,410	4,441	-31	0.956	
Trumbull	167	3,890	5,417	-1,527 *	0.065	
Jefferson	70	4,765	3,904	861	0.585	
Muskingum	66	3,542	2,221	1,321	0.176	
Lawrence	39	4,290	3,220	1,070	0.431	
Sample size	4,151	3,479	672			

(continued)

Table F.5 (continued)

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-county impact. The statistical significance of differences in impacts across the 12 counties was tested with an F-test. The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Table F.6

LEAP's Impacts on AFDC Receipt in Years 3 and 4 (Quarters 9-16), by County and Initial School Enrollment Status

| County | Sample Size | Average Number of Months on AFDC, Quarters 9-16 | | Within-County Impact | p[a] | Between-Counties Impact Difference p[a] |
		Program Group	Control Group			
Sample Members Enrolled in High School or in a GED Program at Random Assignment						
						0.300
Cuyahoga	635	18.06	17.79	0.27	0.740	
Franklin	314	15.60	17.54	-1.94 *	0.082	
Hamilton	309	15.49	17.20	-1.71	0.159	
Lucas	203	14.42	13.38	1.04	0.505	
Summit	197	14.60	13.42	1.18	0.593	
Montgomery	176	15.65	17.62	-1.97	0.533	
Lorain	157	13.39	18.02	-4.63	0.144	
Stark	95	12.33	14.23	-1.90	0.348	
Trumbull	93	11.61	15.71	-4.10	0.176	
Muskingum	42	9.57	4.28	5.29	0.119	
Jefferson	28	18.99	24.25	-5.26	0.531	
Lawrence	23	13.95	10.56	3.39	0.414	

| County | Sample Size | AFDC Amount Received, Quarters 9-16 ($) | | Within-County Impact | p[a] | Between-Counties Impact Difference p[a] |
		Program Group	Control Group			
Sample Members Enrolled in High School or in a GED Program at Random Assignment						
						0.301
Cuyahoga	635	6,128	6,238	-110	0.710	
Franklin	314	5,153	5,825	-672 *	0.096	
Hamilton	309	5,144	5,730	-586	0.181	
Lucas	203	4,782	4,204	578	0.306	
Summit	197	4,820	4,391	428	0.590	
Montgomery	176	5,331	6,286	-955	0.402	
Lorain	157	4,456	5,848	-1,392	0.224	
Stark	95	4,100	4,662	-562	0.443	
Trumbull	93	3,529	5,107	-1,578	0.150	
Muskingum	42	3,127	1,274	1,852	0.132	
Jefferson	28	5,838	6,711	-874	0.773	
Lawrence	23	4,683	2,749	1,934	0.198	
Sample size	2,272	1,917	355			

(continued)

Table F.6 (continued)

County	Sample Size	Average Number of Months on AFDC, Quarters 9-16		Within-County Impact	p[a]	Between-Counties Impact Difference p[a]
		Program Group	Control Group			

Sample Members Not Enrolled in High School or in a GED Program at Random Assignment

County	Sample Size	Program Group	Control Group	Within-County Impact	p[a]	Between-Counties Impact Difference
						0.834
Cuyahoga	520	17.46	16.97	0.49	0.601	
Franklin	304	15.04	15.72	-0.68	0.560	
Hamilton	269	14.86	16.32	-1.46	0.239	
Montgomery	174	13.64	16.20	-2.56	0.412	
Lorain	149	12.59	13.61	-1.02	0.745	
Lucas	115	13.15	15.87	-2.72	0.147	
Stark	98	13.56	12.33	1.23	0.590	
Summit	94	12.87	14.00	-1.13	0.796	
Trumbull	74	13.10	15.68	-2.58	0.450	
Jefferson	42	12.18	7.99	4.19	0.417	
Muskingum	24	12.92	10.71	2.21	0.609	
Lawrence	16	10.41	18.72	-8.31	0.347	

County	Sample Size	AFDC Amount Received, Quarters 9-16 ($)		Within-County Impact	p[a]	Between-Counties Impact Difference
		Program Group	Control Group			p[a]

Sample Members Not Enrolled in High School or in a GED Program at Random Assignment

County	Sample Size	Program Group	Control Group	Within-County Impact	p[a]	Between-Counties Impact Difference
						0.616
Cuyahoga	520	6,214	5,831	382	0.275	
Franklin	304	5,133	5,498	-364	0.404	
Hamilton	269	5,146	5,583	-437	0.342	
Montgomery	174	4,885	6,207	-1,322	0.255	
Lorain	149	4,323	4,000	323	0.781	
Lucas	115	4,483	5,690	-1,207 *	0.083	
Stark	98	4,689	4,191	498	0.558	
Summit	94	4,309	4,556	-248	0.879	
Trumbull	74	4,356	5,688	-1,332	0.294	
Jefferson	42	4,046	2,652	1,394	0.468	
Muskingum	24	4,285	3,627	658	0.682	
Lawrence	16	3,812	5,661	-1,850	0.574	
Sample size	1,879	1,562	317			

(continued)

Table F.6 (continued)

SOURCE: MDRC calculations using data from Ohio Department of Human Services (ODHS) AFDC records.

NOTES: Calculations for this table used data for all 4,151 sample members randomly assigned between mid-August 1990 and September 1991, including those with values of zero for outcomes.

The averages or percentages are regression-adjusted controlling for 38 kinds of differences in characteristics before random assignment. Rounding may cause slight discrepancies in sums and differences.

[a]A two-tailed t-test was applied to each within-county impact. The statistical significance of differences in impacts across the 12 counties was tested with an F-test. The columns labeled "p" indicate the level of significance associated with each test. That is, p is the probability that the estimated impacts differ from zero or from each other only because of random error. Statistical significance levels are indicated as *** = 1 percent; ** = 5 percent; * = 10 percent.

Appendix G

Supplementary Tables to Chapter 6

Estimated Unit Costs for LEAP and Non-LEAP Components
(in 1991 Dollars)

	Unit Cost ($)				
Component	Average per Participant Month[a]	Monthly Incentive Amount	Average per Month for One Child	Average per Participant Spell[b]	Average per FTE (Full-Time Equivalent)[c]
LEAP					
Case management/ county administrative cost	51				
Transportation	6				
Bonuses		62			
Sanctions		-62			
Child care			192		
Non-LEAP					
High school					4,390
GED programs				121	
Employment-related activities					
Job club/job search	392				
Unpaid work experience	172				
On-the-job training	218				
Vocational training					4,513
College					3,876

SOURCES: MDRC calculations based on fiscal and participation data from the Ohio Department of Human Services (ODHS) and the Ohio Department of Education (ODE), and on data collected by MDRC for several of its evaluations of employment programs for welfare recipients.

NOTES: [a]For LEAP unit costs, a participant month is the same as a month in which a teen was eligible for the program.

[b]Each separate enrollment in a GED program during a single year counts as one GED "spell." According to ODE guidelines, a person is considered enrolled in a GED program after he or she has attended such a program for at least 12 hours.

[c]One FTE (i.e., one "full-time equivalent" student) is defined as the total number of scheduled hours for a student attending full time for one academic year.

Table G.2

**LEAP's Three-Year Impacts on Training for the Three-Year Survey Sample,
by Initial School Enrollment Status**

Sample and Its Status 3 Years After Random Assignment	Program Group (%)	Control Group (%)	Difference
Full Three-Year Survey Sample			
Ever in job club/job search	5.4	6.0	-0.7
Ever in unpaid work experience	2.5	2.9	-0.4
Ever in on-the-job training	3.6	5.8	-2.2
Ever in vocational training	17.5	19.3	-1.8
Sample size	446	467	
Sample Members Enrolled in High School or in a GED Program at Random Assignment			
Ever in job club/job search	6.0	3.8	2.2
Ever in unpaid work experience	3.3	3.1	0.2
Ever in on-the-job training	4.1	6.6	-2.5
Ever in vocational training	20.6	21.1	-0.5
Sample size	267	260	
Sample Members Not Enrolled in High School or in a GED Program at Random Assignment			
Ever in job club/job search	4.5	8.7	-4.2
Ever in unpaid work experience	1.1	2.9	-1.8
Ever in on-the-job training	3.2	4.5	-1.3
Ever in vocational training	13.7	16.2	-2.5
Sample size	179	207	

SOURCE: Table 5.2 in Long et al., 1996.

NOTES: Estimates of program-control group differences are regression-adjusted using ordinary least squares, controlling for pre-random assignment background characteristics of sample members.

Rounding may cause slight discrepancies in calculating differences.

A two-tailed t-test was applied to the difference between the program and control groups. Statistical significance levels are indicated as ***= 1 percent; **= 5 percent; and *= 10 percent.

References

Bachrach, Christine, and Karen Carver. 1992. *Outcomes of Early Childbearing: An Appraisal of Recent Evidence*. Bethesda, Md.: National Institute of Child Health and Human Development.

Bane, Mary Jo, and David T. Ellwood. 1983. *The Dynamics of Dependence: The Routes to Self-Sufficiency*. Cambridge, Mass.: Urban Systems Research and Engineering.

Berlin, Gordon, and Andrew Sum. 1988. *Toward a More Perfect Union: Basic Skills, Poor Families, and Our Economic Future*. New York: Ford Foundation.

Bloom, Dan. 1997. *After AFDC: Welfare-to-Work Choices and Challenges for States*. New York: Manpower Demonstration Research Corporation.

Bloom, Dan, Hilary Kopp, David Long, and Denise Polit. 1991. *LEAP: Implementing a Welfare Initiative to Improve School Attendance Among Teenage Parents*. New York: Manpower Demonstration Research Corporation.

Bloom, Dan, Veronica Fellerath, David Long, and Robert Wood. 1993. *LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents*. New York: Manpower Demonstration Research Corporation.

Bos, Johannes M. 1995. "The Labor Market Value of Remedial Education; Evidence from Time Series Data on an Experimental Program for School Dropouts." Ph.D. diss., New York University, New York.

———. 1996. "The Effects of Education and Training Services and Educational Credentials on the Earnings of Economically Disadvantaged Young Mothers." Unpublished MDRC Paper.

Brock, Thomas, and Kristen Harknett. 1997. "Separation Versus Integration of Income Maintenance and Employment Services: Which Model is Best? Findings from a Case Management Experiment in Columbus, Ohio." Unpublished MDRC paper.

Cave, George, Fred Doolittle, Hans Bos, and Cyril Toussaint. 1993. *JOBSTART: Final Report on a Program for School Dropouts*. New York: Manpower Demonstration Research Corporation.

Children's Defense Fund–Ohio, and the Junior Leagues of Ohio. 1995. *Helping Families Work: A 1995/1996 Factbook*. Columbus: Children's Defense Fund–Ohio and the Junior Leagues of Ohio.

Cottingham, Phoebe H., and David T. Ellwood, eds. 1989. *Welfare Policy for the 1990s*. Cambridge, Mass.: Harvard University Press.

Council for Economic Opportunities in Greater Cleveland. 1993. *Ohio Poverty Indicators*. Cleveland: Council for Economic Opportunities in Greater Cleveland.

Doolittle, Fred, and James Riccio. 1992. "Case Management in Welfare Employment Programs." In *Evaluating Welfare and Training Programs*, ed. Charles F. Manski and Irwin Garfinkel. Cambridge, Mass.: Harvard University Press. Pp. 310–43.

Freedman, Stephen, and Daniel Friedlander. 1995. *The JOBS Evaluation: Early Findings on Program Impacts in Three Sites*. Washington, D.C.: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Education.

Friedlander, Daniel, and Gary Burtless. 1995. *Five Years After: The Long-Term Effects of Welfare-to-Work Programs*. New York: Russell Sage Foundation.

Friedlander, Daniel, and Judith Gueron. 1992. "Are High-Cost Services More Effective than Low-Cost Services?" In *Evaluating Welfare and Training Programs*, ed. Charles F. Manski and Irwin Garfinkel. Cambridge, Mass.: Harvard University Press. Pp. 143–98.

Gramlich, Edward M. 1990. *A Guide to Benefit-Cost Analysis*. Englewood Cliffs, N.J.: Prentice-Hall.

Granger, Robert C. 1994. "The Policy Implications of Recent Findings from the New Chance Demonstration, Ohio's Learning, Earning, and Parenting (LEAP) Program in Cleveland, and the Teen Parent Demonstration (TPD)." Paper presented at the annual meeting of the Association for Public Policy and Management, Chicago, Ill., October 27–29, 1994.

Gueron, Judith M. 1984. *Lessons From a Job Guarantee: The Youth Incentive Entitlement Pilot Projects*. New York: Manpower Demonstration Research Corporation.

Gueron, Judith M., and Edward Pauly. 1991. *From Welfare to Work*. New York: Russell Sage Foundation.

Herr, Toby, Suzanne L. Wagner, and Robert Halpern. 1996. *Making the Shoe Fit: Creating a Work-Prep System for a Large and Diverse Population*. Chicago: Project Match.

Hotz, V. Joseph, Susan W. McElroy, and Seth G. Sanders. 1996. "The Impacts of Teenage Childbearing on the Mothers and the Consequences of those Impacts for Government." In *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, ed. Rebecca A. Maynard. Washington, D.C.: The Urban Institute Press. Pp. 55–94.

Kemple, James, Daniel Friedlander, and Veronica Fellerath. 1995. *Florida's Project Independence: Benefits, Costs, and Two-Year Impacts of Florida's JOBS Program*. New York: Manpower Demonstration Research Corporation.

Kennedy, Peter. 1992. *A Guide to Econometrics*. Cambridge, Mass.: Harvard University Press.

Levy, Frank, and Richard J. Murnane. 1992. "U.S. Earnings Levels and Earnings Inequality: A Review of Recent Trends and Proposed Explanations." *Journal of Economic Literature* 30, no. 1:333–81.

Long, David, Judith Gueron, Robert Wood, Rebecca Fisher, and Veronica Fellerath. 1996. *LEAP: Three-Year Impacts of Ohio's Welfare Initiative to Improve School Attendance Among Teenage Parents*. New York: Manpower Demonstration Research Corporation.

Long, David, and Virginia Knox. 1985. *Documentation of the Data Sources and Analytical Methods Used in the Benefit-Cost Analysis of the EPP/EWEP Program in San Diego*. New York: Manpower Demonstration Research Corporation.

Long, David, Robert G. Wood, and Hilary Kopp. 1994. *LEAP: The Educational Effects of LEAP and Enhanced Services in Cleveland*. New York: Manpower Demonstration Research Corporation.

Maynard, Rebecca, Walter Nicholson, and Anu Rangarajan. 1993. *Breaking the Cycle of Poverty: The Effectiveness of Mandatory Services for Welfare-Dependent Teenage Parents*. Princeton, N.J.: Mathematica Policy Research.

Murnane, Richard J., John B. Willett, and Kathryn Parker Boudett. 1994. "Does Acquisition of a GED Lead to More Training, Post-secondary Education, and Military Service for School Dropouts?" Unpublished paper.

————. 1995. "Do High School Dropouts Benefit from Obtaining a GED?" *Educational Evaluation and Policy Analysis* 17, no. 2:133–47.

Ohio Bureau of Employment Services. 1993. *Labor Force Estimates, 1990–1993*. Cleveland: Ohio Bureau of Employment Services.

Ohio Department of Health, Office of Health Policy and Analysis, Statistical Analysis Unit. 1993. *Vital Statistics Summary*. Cleveland: Ohio Department of Health.

Ohio Department of Human Services, Management Information Services. 1994. *GBS 003 RB: Summary of Actual Expenditures*. Cleveland: Ohio Department of Human Services.

Ohio Department of Human Services, Medicaid Management Information System. 1994. *Medicaid: Eligibles, Participants, and Expenditures, State Fiscal Year 1993*. Cleveland: Ohio Department of Human Services.

Olds, David L., et al. 1988. "Improving the Life-Course Development of Socially Disadvantaged Mothers: A Randomized Trial of Nurse Home Visitation." *American Journal of Public Health* 78, no. 11:1436–45.

Pawasarat, John, Lois Quinn, and Frank Stetzer. 1992. *Evaluation of the Impact of Wisconsin's Learnfare Experiment on the School Attendance of Teenagers Receiving Aid to Families with Dependent Children*. Prepared for the Wisconsin Department of Health and Social Services and the U.S. Department of Health and Human Services by the Employment and Training Institute, University of Wisconsin-Milwaukee.

Quint, Janet C., and Judith S. Musick. 1994. *Lives of Promise, Lives of Pain: Young Mothers After New Chance*. New York: Manpower Demonstration Research Corporation.

Quint, Janet C., Johannes M. Bos, and Denise Polit. 1997. *New Chance: Final Report on a Comprehensive Program for Disadvantaged Young Mothers and Their Children*. New York: Manpower Demonstration Research Corporation.

Quint, Janet C., Denise Polit, Hans Bos, and George Cave. 1994. *New Chance: Interim Findings on a Comprehensive Program for Disadvantaged Young Mothers and Their Children*. New York: Manpower Demonstration Research Corporation.

Riccio, James, Daniel Friedlander, and Stephen Freedman. 1994. *GAIN: Benefits, Costs, and Three-Year Impacts of a Welfare-to-Work Program*. New York: Manpower Demonstration Research Corporation.

Scholz, John K. 1994. "Tax Policy and the Working Poor: The Earned Income Tax Credit." *IRP Focus* 15, no. 3:1–12.

State of Wisconsin, Legislative Audit Bureau. 1995. *An Evaluation of First-Semester Effects of the Wisconsin Learnfare Program*. Madison: State of Wisconsin, Legislative Audit Bureau.

——— . 1996. *An Evaluation of Third-Semester Effects of the Wisconsin Learnfare Program*. Madison: State of Wisconsin, Legislative Audit Bureau.

Sum, Andrew, Robert Taggart, and Neal Fogg. 1995. "Dreams to Dust: The Deteriorating Labor Market Fortunes of Young Adult Men and Women in the United States, 1967–1994." Unpublished paper.

Tompkins, Arnold R. 1996. "Welfare Reform in Ohio." *Public Welfare* (Fall): 12–17.

U.S. Bureau of the Census. 1992. *1990 Census of Population: General Population Characteristics: Ohio*. Washington, D.C.: Bureau of the Census.

U.S. Bureau of the Census, Population Estimates Branch. 1995. *Population Counts and Estimates for Ohio and Counties, 1990–1994*. Washington, D.C.: Bureau of the Census.

U.S. Congress, House Committee on Ways and Means. 1994. *Overview of Entitlement Programs*. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Health and Human Services, Health Care Financing Administration. 1994a. *Statistical Report on Medical Care: Eligibles, Recipients, Payments, and Services for Fiscal Year 1993*. Washington, D.C.: U.S. Department of Health and Human Services.

——— . 1994b. *Summary of Quarterly Medicaid Statement of Expenditures for the Medical Assistance Program (From HCFA-64)*. Washington, D.C.: U.S. Department of Health and Human Services.

Selected Publications on MDRC Projects

Programs for Teenage Parents

The LEAP Evaluation

An evaluation of Ohio's Learning, Earning, and Parenting (LEAP) Program, which uses financial incentives to encourage teenage parents on welfare to stay in or return to school.

LEAP: Implementing a Welfare Initiative to Improve School Attendance Among Teenage Parents. 1991. Dan Bloom, Hilary Kopp, David Long, Denise Polit.

LEAP: Interim Findings on a Welfare Initiative to Improve School Attendance Among Teenage Parents. 1993. Dan Bloom, Veronica Fellerath, David Long, Robert Wood.

LEAP: The Educational Effects of LEAP and Enhanced Services in Cleveland. 1994. David Long, Robert Wood, Hilary Kopp.

LEAP: Three-Year Impacts of Ohio's Welfare Initiative to Improve School Attendance Among Teenage Parents. 1996. David Long, Judith Gueron, Robert Wood, Rebecca Fisher, Veronica Fellerath.

LEAP: Final Report on Ohio's Welfare Initiative to Improve School Attendance Among Teenage Parents. 1997. Johannes Bos, Veronica Fellerath.

The New Chance Demonstration

A test of a comprehensive program of services that seeks to improve the economic status and general well-being of a group of highly disadvantaged young women and their children.

New Chance: Implementing a Comprehensive Program for Disadvantaged Young Mothers and Their Children. 1991. Janet Quint, Barbara Fink, Sharon Rowser.

Lives of Promise, Lives of Pain: Young Mothers After New Chance. Monograph. 1994. Janet Quint, Judith Musick, with Joyce Ladner.

New Chance: Interim Findings on a Comprehensive Program for Disadvantaged Young Mothers and Their Children. 1994. Janet Quint, Denise Polit, Hans Bos, George Cave.

New Chance: The Cost Analysis of a Comprehensive Program for Disadvantaged Young Mothers and Their Children. Working Paper. 1994. Barbara Fink.

New Chance: Final Report on a Comprehensive Program for Young Mothers in Poverty and Their Children. 1997. Janet Quint, Johannes Bos, Denise Polit.

Parenting Behavior in a Sample of Young Single Mothers in Poverty: Results of the New Chance Observational Study. 1997. Martha Zaslow, Carolyn Eldred, editors.

Project Redirection

A test of a comprehensive program of services for pregnant and parenting teenagers.

The Challenge of Serving Teenage Mothers: Lessons from Project Redirection. Monograph. 1988. Denise Polit, Janet Quint, James Riccio.

The Community Service Projects

A test of a New York State teenage pregnancy prevention and services initiative.

The Community Service Projects: Final Report on a New York State Adolescent Pregnancy Prevention and Services Program. 1988. Cynthia Guy, Lawrence Bailis, David Palasits, Kay Sherwood.

Note: For works not published by MDRC, the publisher's name is shown in parentheses.

Reforming Welfare

Books and Monographs

Reforming Welfare with Work (Ford Foundation). Monograph. 1987. Judith Gueron. A review of welfare-to-work initiatives in five states.

From Welfare to Work (Russell Sage Foundation). Book. 1991. Judith Gueron, Edward Pauly. A synthesis of research findings on the effectiveness of welfare-to-work programs. Chapter 1, which is the summary of the book, is also published separately by MDRC.

Five Years After: The Long-Term Effects of Welfare-to-Work Programs (Russell Sage Foundation). Book. 1995. Daniel Friedlander, Gary Burtless. An analysis of five-year follow-up data on four welfare-to-work programs.

After AFDC: Welfare-to-Work Choices and Challenges for States. Book. 1997. Dan Bloom. A summary and synthesis of lessons derived from studies of welfare reform programs.

ReWORKing Welfare: Technical Assistance for States and Localities

After AFDC: Welfare-to-Work Choices and Challenges for States. See under Books and Monographs.

Changing to a Work First Strategy: Lessons from Los Angeles County's GAIN Program for Welfare Recipients. 1997. Evan Weissman.

Work First: How to Implement an Employment-Focused Approach to Welfare Reform. 1997. Amy Brown.

Working Papers

Working Papers related to a specific project are listed under that project.

Learning from the Voices of Mothers: Single Mothers' Perceptions of the Trade-offs Between Welfare and Work. 1993. LaDonna Pavetti.

Unpaid Work Experience for Welfare Recipients: Findings and Lessons from MDRC Research. 1993. Thomas Brock, David Butler, David Long.

From Welfare to Work Among Lone Parents in Britain: Lessons for America. 1996. James Riccio.

Papers for Practitioners

Assessing JOBS Participants: Issues and Trade-offs. 1992. Patricia Auspos, Kay Sherwood.

Linking Welfare and Education: A Study of New Programs in Five States. 1992. Edward Pauly, David Long, Karin Martinson.

Improving the Productivity of JOBS Programs. 1993. Eugene Bardach.

Reports and Other Publications

Time-Limited Welfare

Florida's Family Transition Program

A study of Florida's time-limited welfare program.

The Family Transition Program: An Early Implementation Report on Florida's Time-Limited Welfare Initiative. 1995. Dan Bloom.

The Family Transition Program: Implementation and Early Impacts of Florida's Initial Time-Limited Welfare Program. 1997. Dan Bloom, James Kemple, Robin Rogers-Dillon.

The Cross-State Study of Time-Limited Welfare

An examination of the implementation of some of the first state-initiated time-limited welfare programs.

Implementing Time-Limited Welfare: Early Experiences in Three States. 1995. Dan Bloom, David Butler.

Making Work Pay

The Minnesota Family Investment Program (MFIP)

An evaluation of Minnesota's welfare reform initiative.

MFIP: An Early Report on Minnesota's Approach to Welfare Reform. 1995. Virginia Knox, Amy Brown, Winston Lin.

The New Hope Project

A test of a neighborhood-based antipoverty program and welfare alternative operating in Milwaukee.

The New Hope Offer: Participants in the New Hope Demonstration Discuss Work, Family, and Self-Sufficiency. 1996. Dudley Benoit.

Canada's Self-Sufficiency Project (SSP)

A test of the effectiveness of a temporary earnings supplement on the employment and welfare receipt of public assistance recipients. Reports on the Self-Sufficiency Project are available from: Social Research and Demonstration Corporation (SRDC), 275 Slater St., Suite 900, Ottawa, Ontario K1P 5H9, Canada. Tel.: 613-237-4311; Fax: 613-237-5045. In the United States, the reports are also available from MDRC.

Making Work Pay Better Than Welfare: An Early Look at the Self-Sufficiency Project (Social Research and Demonstration Corporation). 1994. Susanna Lui-Gurr, Sheila Currie Vernon, Tod Mijanovich.
Creating an Alternative to Welfare: First-Year Findings on the Implementation, Welfare Impacts, and Costs of the Self-Sufficiency Project (Social Research and Demonstration Corporation). 1995. Tod Mijanovich, David Long.
The Struggle for Self-Sufficiency: SSP Participants Talk About Work, Welfare, and Their Futures (Social Research and Demonstration Corporation). 1995. Wendy Bancroft, Sheila Currie Vernon.
Do Financial Incentives Encourage Welfare Recipients to Work? Initial 18-Month Findings from the Self-Sufficiency Project (Social Research and Demonstration Corporation). 1996. David Card, Philip Robins.
When Work Pays Better Than Welfare: A Summary of the Self-Sufficiency Project's Implementation, Focus Group, and Initial 18-Month Impact Reports (Social Research and Demonstration Corporation). 1996.

JOBS Programs

The JOBS Evaluation

An evaluation of welfare-to-work programs operating under the Job Opportunities and Basic Skills Training (JOBS) provisions of the Family Support Act of 1988.

From Welfare to Work (Russell Sage Foundation). See under Books and Monographs.
The Saturation Work Initiative Model in San Diego: A Five-Year Follow-up Study. 1993. Daniel Friedlander, Gayle Hamilton.
The JOBS Evaluation: Early Lessons from Seven Sites (U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation [HHS, ASPE]). 1994. Gayle Hamilton, Thomas Brock.
Five Years After: The Long-Term Effects of Welfare-to-Work Programs. See under Books and Monographs.
The JOBS Evaluation: Adult Education for People on AFDC—A Synthesis of Research (HHS, ASPE). 1995. Edward Pauly.
The JOBS Evaluation: Early Findings on Program Impacts in Three Sites (HHS, ASPE). 1995. Stephen Freedman, Daniel Friedlander.
The JOBS Evaluation: How Well Are They Faring? AFDC Families with Preschool-Aged Children in Atlanta at the Outset of the JOBS Evaluation (HHS, ASPE). 1995. Child Trends, Inc.: Kristin Moore, Martha Zaslow, Mary Jo Coiro, Suzanne Miller, Ellen Magenheim.
The JOBS Evaluation: Monthly Participation Rates in Three Sites and Factors Affecting Participation Levels in Welfare-to-Work Programs (HHS, ASPE). 1995. Gayle Hamilton.

Changing to a Work First Strategy: Lessons from Los Angeles County's GAIN Program for Welfare Recipients.
1997. Evan Weissman.
Work First: How to Implement an Employment-Focused Approach to Welfare Reform. 1997. Amy Brown.

The GAIN Evaluation

An evaluation of California's Greater Avenues for Independence (GAIN) Program, the state's JOBS program.

GAIN: Planning and Early Implementation. 1987. John Wallace, David Long.
GAIN: Child Care in a Welfare Employment Initiative. 1989. Karin Martinson, James Riccio.
GAIN: Early Implementation Experiences and Lessons. 1989. James Riccio, Barbara Goldman, Gayle Hamilton, Karin Martinson, Alan Orenstein.
GAIN: Participation Patterns in Four Counties. 1991. Stephen Freedman, James Riccio.
GAIN: Program Strategies, Participation Patterns, and First-Year Impacts in Six Counties. 1992. James Riccio, Daniel Friedlander.
GAIN: Two-Year Impacts in Six Counties. 1993. Daniel Friedlander, James Riccio, Stephen Freedman.
GAIN: Basic Education in a Welfare-to-Work Program. 1994. Karin Martinson, Daniel Friedlander.
GAIN: Benefits, Costs, and Three-Year Impacts of a Welfare-to-Work Program. 1994. James Riccio, Daniel Friedlander, Stephen Freedman.

Related Studies:
The Impacts of California's GAIN Program on Different Ethnic Groups: Two-Year Findings on Earnings and AFDC Payments. Working Paper. 1994. Daniel Friedlander.
Can They All Work? A Study of the Employment Potential of Welfare Recipients in a Welfare-to-Work Program. Working Paper. 1995. James Riccio, Stephen Freedman.
Changing to a Work First Strategy: Lessons from Los Angeles County's GAIN Program for Welfare Recipients. 1997. Evan Weissman.

The Evaluation of Florida's Project Independence

An evaluation of Florida's initial JOBS program.

Florida's Project Independence: Program Implementation, Participation Patterns, and First-Year Impacts. 1994. James Kemple, Joshua Haimson.
Florida's Project Independence: Benefits, Costs, and Two-Year Impacts of Florida's JOBS Program. 1995. James Kemple, Daniel Friedlander, Veronica Fellerath.

Other Welfare Studies

The Saturation Work Initiative Model (SWIM)

A test of the feasibility and effectiveness of an ongoing participation requirement in a welfare-to-work program.

Interim Report on the Saturation Work Initiative Model in San Diego. 1988. Gayle Hamilton.
Final Report on the Saturation Work Initiative Model in San Diego. 1989. Gayle Hamilton, Daniel Friedlander.
The Saturation Work Initiative Model in San Diego: A Five-Year Follow-up Study. 1993. Daniel Friedlander, Gayle Hamilton.

The Demonstration of State Work/Welfare Initiatives

A test of the feasibility and effectiveness of various state employment initiatives for welfare recipients.

Arizona: *Preliminary Management Lessons from the WIN Demonstration Program.* 1984. Kay Sherwood.
Arkansas: *Final Report on the WORK Program in Two Counties.* 1985. Daniel Friedlander, Gregory Hoerz, Janet Quint, James Riccio.

California: *Final Report on the San Diego Job Search and Work Experience Demonstration.* 1986. Barbara Goldman, Daniel Friedlander, David Long.

Illinois: *Final Report on Job Search and Work Experience in Cook County.* 1987. Daniel Friedlander, Stephen Freedman, Gayle Hamilton, Janet Quint.

Maine: *Final Report on the Training Opportunities in the Private Sector Program.* 1988. Patricia Auspos, George Cave, David Long.

Maryland: *Final Report on the Employment Initiatives Evaluation.* 1985. Daniel Friedlander, Gregory Hoerz, David Long, Janet Quint.
Supplemental Report on the Baltimore Options Program. 1987. Daniel Friedlander.

New Jersey: *Final Report on the Grant Diversion Project.* 1988. Stephen Freedman, Jan Bryant, George Cave.

Virginia: *Final Report on the Virginia Employment Services Program.* 1986. James Riccio, George Cave, Stephen Freedman, Marilyn Price.

West Virginia: *Final Report on the Community Work Experience Demonstrations.* 1986. Daniel Friedlander, Marjorie Erickson, Gayle Hamilton, Virginia Knox.

Other Reports on the Demonstration of State Work/Welfare Initiatives

Relationship Between Earnings and Welfare Benefits for Working Recipients: Four Area Case Studies. 1985. Barbara Goldman, Edward Cavin, Marjorie Erickson, Gayle Hamilton, Darlene Hasselbring, Sandra Reynolds.

Welfare Grant Diversion: Early Observations from Programs in Six States. 1985. Michael Bangser, James Healy, Robert Ivry.

A Survey of Participants and Worksite Supervisors in the New York City Work Experience Program. 1986. Gregory Hoerz, Karla Hanson.

Welfare Grant Diversion: Lessons and Prospects. 1986. Michael Bangser, James Healy, Robert Ivry.

Work Initiatives for Welfare Recipients: Lessons from a Multi-State Experiment. 1986. Judith Gueron.

The Subgroup/Performance Indicator Study

A study of the impacts of selected welfare-to-work programs on subgroups of the AFDC caseload.

A Study of Performance Measures and Subgroup Impacts in Three Welfare Employment Programs. 1987. Daniel Friedlander, David Long.

Subgroup Impacts and Performance Indicators for Selected Welfare Employment Programs. 1988. Daniel Friedlander.

The Self-Employment Investment Demonstration (SEID)

A test of the feasibility of operating a program to encourage self-employment among recipients of AFDC.

Self-Employment for Welfare Recipients: Implementation of the SEID Program. 1991. Cynthia Guy, Fred Doolittle, Barbara Fink.

The WIN Research Laboratory Project

A test of innovative service delivery approaches in four Work Incentive Program (WIN) offices.

Impacts of the Immediate Job Search Assistance Experiment: Louisville WIN Research Laboratory Project. 1981. Barbara Goldman.

Welfare Women in a Group Job Search Program: Their Experiences in the Louisville WIN Research Laboratory Project. 1982. Joanna Gould-Stuart.

Job Search Strategies: Lessons from the Louisville WIN Laboratory. 1983. Carl Wolfhagen, Barbara Goldman.

The Parents' Fair Share Demonstration

A demonstration aimed at reducing child poverty by increasing the job-holding, earnings, and child support payments of unemployed, noncustodial parents (usually fathers) of children receiving public assistance.

Caring and Paying: What Fathers and Mothers Say About Child Support. 1992. Frank Furstenberg, Jr., Kay Sherwood, Mercer Sullivan.
Child Support Enforcement: A Case Study. Working Paper. 1993. Dan Bloom.
Matching Opportunities to Obligations: Lessons for Child Support Reform from the Parents' Fair Share Pilot Phase. 1994. Dan Bloom, Kay Sherwood.
Low-Income Parents and the Parents' Fair Share Demonstration: An Early Qualitative Look at Low-Income Noncustodial Parents (NCPs) and How One Policy Initiative Has Attempted to Improve Their Ability to Pay Child Support. 1996. Earl Johnson, Fred Doolittle.

The National Supported Work Demonstration

A test of a transitional work experience program for four disadvantaged groups.

Summary and Findings of the National Supported Work Demonstration. 1980. MDRC Board of Directors.

The Section 3 Study

Lessons from the Field on the Implementation of Section 3 (U.S. Department of Housing and Urban Development, Office of Policy Development and Research). 1996. Maxine Bailey, Suzanne Lynn.

About MDRC

The Manpower Demonstration Research Corporation (MDRC) is a nonprofit social policy research organization founded in 1974 and located in New York City and San Francisco. Its mission is to design and rigorously field-test promising education and employment-related programs aimed at improving the well-being of disadvantaged adults and youth, and to provide policymakers and practitioners with reliable evidence on the effectiveness of social programs. Through this work, and its technical assistance to program administrators, MDRC seeks to enhance the quality of public policies and programs. MDRC actively disseminates the results of its research through its publications and through inter-changes with a broad audience of policymakers and practitioners; state, local, and federal officials; program planners and operators; the funding community; educators; scholars; community and national organizations; the media; and the general public.

Over the past two decades — working in partnership with more than forty states, the federal government, scores of communities, and numerous private philanthropies — MDRC has developed and studied more than three dozen promising social policy initiatives.