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The Impact of California's Cal-Learn Demonstration Project, Final Report

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IMPACT OF CALIFORNIA'S CAL-LEARN DEMONSTRATION PROJECT

FINAL REPORT

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To Karen Garrett
October 31, 1950 – March 27, 1999

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EXECUTIVE SUMMARY

Cal-Learn is a statewide program within the California Department of Social Services (CDSS) designed to help pregnant and parenting teenagers on welfare complete high school. It is mandatory for all custodial parents under age 19 on welfare who do not have a high school diploma (HSD) or a General Educational Development certificate (GED). The program features two key program elements:

(1) financial bonuses and sanctions associated with school progress and graduation, and
(2) intensive case management to help each client earn an HSD or GED.

The Cal-Learn financial incentives are: a bonus of $500 upon graduation paid directly to the teen; progress bonuses of $100, which are provided within the family's welfare check for "satisfactory" school progress. Sanctions of $100 for a missing or "inadequate" report card and $50 for a late report card are deducted in $50 increments from the family's welfare check. Up to four report cards yearly are assessed to see if they warrant a bonus, a sanction, or neither. All teens attending school are entitled to "supportive services"— funding for child care, transportation and other school-related expenses. (Appendix A gives the details of the program).

The Cal-Learn case management services are provided in most counties by social service agencies (either non-profit or county-run) or by county health agencies. The case managers at these agencies specialize in working with pregnant and parenting teens, and can arrange for needed services, provide information and referrals, and offer encouragement and advice. Teens are referred to case managers by welfare or GAIN workers, but are not required to talk to a case manager or participate in case management.

The Cal-Learn evaluation was structured as an experiment, with participants in four counties randomly assigned to one of four research groups: Full Cal-Learn, Financial Incentives Only, Case Management Only, and a No Treatment control group. The analysis strategy compares outcomes in each of the treatment groups to outcomes in the No Treatment group, to assess not only the impact of the Full Cal-Learn program but also the impacts of case management alone and financial incentives alone. The evaluation uses a combination of survey data from clients, state and county administrative data, administrative data from the case management agencies, high school records and official GED statistics. Teens with less than six months of exposure to the program were excluded from the analyses. Supplementary studies showed that this sample restriction had minimal and non-significant consequences for the estimated program impacts.

The empirical findings of the evaluation are summarized below; policy implications and recommendations appear in Chapter X of this report.

Findings

1. **Teens in the Full Cal-Learn group graduate at a significantly higher rate than those in the No Treatment group.** The survey data indicate that among evaluation teens who were 18 or older, 32% of Full Cal-Learn teens graduate compared to 24% of the No Treatment teens. By their 20th birthday, an estimated 47% of the Full Cal-Learn group and 33% of

the No Treatment teens graduate.

2. **The impact on graduations is concentrated exclusively in GEDs.** This effect is observed in the official GED data from the California Department of Education (CDE) as well as in the self-reported survey data. The official GED data show 13% of Full Cal-Learn teens earning GEDS compared to 8% of the No Treatment group. Among teens aged 18 and over, the survey data show 13% of Full Cal-Learn teens earning GEDS compared to 6% of the No Treatment group. The survey data show no differences between the two groups in the rates at which teens earn high school diplomas.

3. **Program impacts depend on whether a teen was in or out of school at Cal-Learn entry.** Among teens out of school at program entry (one-third of the sample), 20% of Full Cal-Learn teens graduated (18% with GEDs and 2% with HSDs) while only 11% of No Treatment teens did (7% with GEDs and 4% with HSDs). Teens who were attending school at program entry showed smaller and non-significant program impacts, with overall graduation rates of 38% for in-school Full Cal-Learn and 35% for in-school No Treatment teens. Three-fourths of the in-school teens who graduated earned HSDs, not GEDs.

4. **Program impacts also depend on whether a teen had previously been held back a grade in school or not**. Teens who had never been held back a grade in school benefited substantially more from the Full Cal-Learn treatment than teens who had been held back. Participation in the Full Cal-Learn program led to a statistically significant 12 percentage point gain in graduations (mainly GEDs) among teens who had not been held back, while there were no measurable impacts among teens who had been held back.

5. **Combining the data on school enrollment and being held back a grade, we find that the teens who gained the most from Full Cal-Learn were the 23% of the sample who had never been held back and were out of school at Cal-Learn entry.** Among such teens age 18 and over, teens in Full Cal-Learn had a graduation rate 14 percentage points higher than teens in No Treatment. The 47% of teens with no history of grade retention who were attending school at program entry also benefited, with 7 percentage points more graduations than No Treatment teens with similar educational backgrounds. All program impacts were concentrated in GEDs.

6. **Full Cal-Learn had a greater impact than the Financial Incentives Only or Case Management Only treatments.** Almost all teens in Full Cal-Learn both had contact with a case manager and were aware of the financial incentives, unlike the teens in the single-treatment groups. The two Cal-Learn program components worked synergistically, in that teens who had a case manager were more likely to recognize that they could get a bonus or sanction, and teens who knew they were eligible for bonuses or sanctions were more likely to report contact with a case manager.

7. **Most teens who were enrolled in the Full Cal-Learn research group understood the details of the Cal-Learn program and participated in it. However, teens are considerably more aware of bonuses than of sanctions.**

The program's success in "getting the word out" is encouraging. More than three-fourths of the teens in the Full Cal-Learn research group knew that they were eligible for case management and that they could receive bonuses or sanctions.

Almost all (84%) Full Cal-Learn teens had some direct personal contact (face-to-face or by telephone) with a case manager, with contacts occurring at the rate of about 1.4 per month.

Similarly, almost all (85%) of Full Cal-Learn teens knew they were eligible for a bonus or a sanction based on their educational progress, and more than two-thirds of them actually received a bonus or a sanction while in the evaluation. However, teens were much more aware of bonuses than of sanctions. Almost all teens who had received a progress or graduation bonus knew it (i.e., reported the fact when asked). However, only 75% of Full Cal-Learn teens even knew they were eligible for sanctions, and only 64% of teens who had been sanctioned responded in the affirmative when asked if they had been sanctioned, suggesting that they were unaware of the sanction or that they did not want to tell the interviewer they had been sanctioned.

8. **Most teens who were enrolled in the Full Cal-Learn research group reported that they found the case management services and the financial incentives useful and helpful.**

   Most Full Cal-Learn teens (80%) who knew they had case managers said that their case managers helped "A Lot" or "Some" with things in general. Teens who had case managers were more likely than teens without case managers to report that they felt adequately supported in their lives. Case-managed teens were also more likely to receive supportive services.

   A majority of all teens felt that both bonuses and sanctions were useful motivators and were fair. Nearly two-thirds thought bonuses "Very Useful" in helping them stay in school, and another quarter thought them "Somewhat Useful". Most of those who thought they could get a bonus said it was "Very Important" to them for staying in school. Although there was less support for sanctions than for bonuses, a majority still thought sanctions were "Very" or "Somewhat" useful. Teens were more likely to say bonuses and sanctions were "Very Important" if they had actually received a bonus and if they had *not* received a sanction.

9. **Nearly half of the teens got funding for supportive services, most often for transportation.** Case managed teens were significantly more likely to use supportive services than non-case managed teens. Most said their case managers helped them obtain the services.

10. **Full Cal-Learn did not have any effect on subsequent childbearing among participants, according to the survey data.** Although teens who were enrolled in school or college had lower rates of subsequent childbearing and lower reported rates of unprotected sex than teens not enrolled in school, the effect of Full Cal-Learn on school enrollment (as opposed to its impact on graduation) was only modest.

11. **During the period available to observe teens' economic outcomes, Full Cal-Learn teens as a group did not exhibit significantly higher employment, higher earnings, or a reduced use of welfare relative to the No Treatment group. However, a teen's chances of employment and her wages are substantially higher if she has an HSD or GED than if she drops out – and Cal-Learn does significantly increase graduation rates.** Graduates are more than twice as likely to be employed at ages 18 and 19 and about 40% more likely to be employed after age 20 as non-graduates, and working graduates typically earn more than working non-graduates. Teens with GEDs had similar employment rates and wages to teens with HSDs. However, even though teens in the Full Cal-Learn group are more likely to graduate than teens who receive no treatment, the increase in graduation rates is not large enough to create statistically significant differences in economic outcomes. However, the evaluation period was too brief to estimate the long-term impacts of the program on employment and welfare use, or the relative long-term value of GEDs compared to HSDs.

PART ONE

INTRODUCTION TO THE CAL-LEARN PROGRAM AND EVALUATION

I. INTRODUCTION

Cal-Learn is a statewide program within the California Department of Social Services (CDSS) designed to help pregnant and parenting teenagers on welfare successfully complete high school. The program was created in response to concerns over the relatively high teen birth-rate in California and the high rate of welfare use among current and former teen mothers. Teen parents are typically from disadvantaged households, face many barriers to educational and economic success, and frequently drop out of high school. In creating the Cal-Learn program, which is mandatory for all custodial parents under age 19 on welfare who do not have a high school diploma (HSD) or GED, policy-makers hoped to raise the graduation rate among participants, reduce their welfare dependency and increase their earnings.

This report presents the complete findings and conclusions of the evaluation that was mandated by the California legislature when the Cal-Learn program was adopted. It assesses the impact of the Cal-Learn program on high school enrollment, high school graduation, GED receipt, employment, and welfare use among program participants, incorporating data from the full evaluation period (October 1994 to October 1999) and from all four counties in the evaluation (Alameda, Los Angeles, San Bernardino, and San Joaquin). This final report uses data on more individuals and covers a longer period than did the interim report, which CDSS received in September of 1999.

The report is divided into four parts. Part One (Chapters I and II) provides an introduction to the Cal-Learn program and the evaluation, as well as specifics about the research design, data sources, and the sample. In Part Two (Chapters III, IV and V) we present the data on program impacts . Chapter III covers the direct impacts of the program on graduation and persistence in school, Chapter IV discusses important mediating factors, and Chapter V presents data on employment and welfare receipt. Part Three of the report (Chapters VI, VII and VIII) looks at program implementation. These chapters discuss how the incentives and sanctions, case management services and supportive services were applied or awarded to clients, and how clients describe their experiences with those program components. Part Four (Chapter IX) explores the survey data in more depth, presenting analyses of life experiences and other non-program factors that may interact with Cal-Learn in this evaluation. The final part (Chapter X), discusses the lessons learned from the Cal-Learn evaluation and the policy implications of the findings. Appendices provide more detailed information about the Cal-Learn program, comparable programs elsewhere, the research counties, the data used in the evaluation, and other matters.

In this first chapter, we provide an overview of the Cal-Learn program and discuss program implementation in the context of welfare reform and other policies affecting young parents in California. This is followed by a discussion of the Cal-Learn program logic and an overview of the evaluation design and goals.

Demographic and Policy Context of Cal-Learn

The Cal-Learn program was implemented statewide in 1994, after federal waivers were obtained to issue sanctions and bonuses associated with school progress, and to conduct an evaluation of

the impact of Cal-Learn. Cal-Learn is now a permanent part of California's welfare system, rather than being implemented under waiver authority.

The Cal-Learn evaluation started in October 1994, when data collection began on a pilot sample of participants in San Bernardino County. The evaluation was conducted in four counties: Alameda, a densely-populated urban county close to San Francisco; Los Angeles, the state's most populous county; San Bernardino, a large rural county adjacent to Los Angeles; and San Joaquin, a small rural county in the Central Valley of California. These counties are described in Appendix C. Administrative data used in the evaluation reflect clients' program participation through November 1998, while interviewing for the survey component of the study continued through October 1999.

Los Angeles has the largest percentage of the statewide Cal-Learn caseload, approximately 38%. Alameda County comprises almost 4% of the caseload. San Bernardino has approximately 6% and San Joaquin contains 3%. Combined, the four research counties account for more than half of the California Cal-Learn caseload.

As Figure 1.1 shows, the Cal-Learn caseload has declined substantially over recent years, from 21,184 cases statewide in January 1996 to 11,744 cases in September 1999.[1] All four research counties saw substantial caseload reductions; three of the four counties now have caseloads less than half the levels of January 1996. These caseload declines did not directly affect the evaluation, except insofar as the number of teen parents enrolled in two of the counties was fewer than expected when the study was designed in early 1994.

Welfare caseloads statewide also declined in recent years, from 904,150 cases in January 1996 to 578,973 cases in September 1999. Although CalWORKs, California's welfare reform program, was enacted in 1997 and implemented in 1998, teen parents were exempted from the work requirements and other provisions of CalWORKs as long as they were enrolled in Cal-Learn. The drop in Cal-Learn cases, which represent only about 2% of the total welfare caseload in California, has been somewhat greater than the decline in welfare caseloads overall.

The Cal-Learn caseload decline also reflects the sharp drop in California's teen birthrate, which fell from 71 births per thousand in 1994 to 57 in 1997.[2] The teen birth rate in California for the year 2000 is projected to be 51 births per 1000 teens, or 59,211 births overall.[3]

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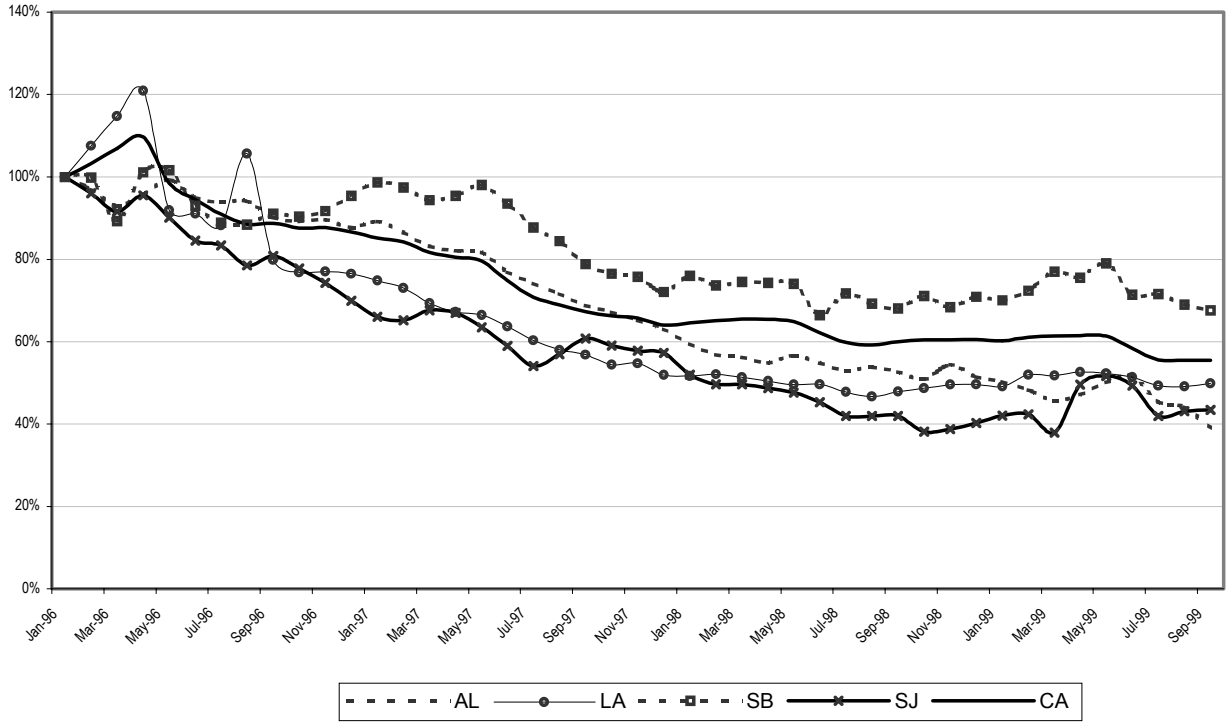
Figure 1.1: Cal-Learn Caseload Declines Since January 1996 in Research Counties Compared to Statewide Average



SOURCE: Cal-Learn Program Stat 45 Reports

The Cal-Learn Program

Program Design

The Cal-Learn program is mandatory for all custodial parents under age 19 on welfare who do not have a high school diploma (HSD) or GED. In 1998, the program was modified to allow teens to remain voluntarily in Cal-Learn until their 20th birthday. The program features two key program elements: (1) intensive, individualized case management to help each client move towards high school graduation or GED[4] and (2) financial bonuses and penalties for either making progress in school or failing to make progress. Cal-Learn clients who graduate with a high school diploma (HSD) or earn a GED are rewarded with a $500 check made out to them personally. Prior to graduation, good progress is rewarded with a bonus of $100 applied to the family welfare grant of a Cal-Learn teen when she[5] receives a report card indicating "satisfactory" progress (at least a C average). On the other hand, if the Cal-Learn teen does not turn in a report card or has a report card showing "inadequate" progress (a D- or F average), the family welfare check is reduced by a total of $100 (two $50 deductions over two consecutive months). Up to four report cards yearly are assessed to determine if they warrant a bonus, a sanction, or neither. In addition, all participants who are attending school are entitled to receive

subsidies for "supportive services"— child care, transportation and other school-related expenses. The Cal-Learn program is explained in more detail in Appendix A. The program, while unique, shares features with other programs for teenage parents that have been implemented elsewhere; some of these programs are described in Appendix B.

Cal-Learn Program Logic

The Cal-Learn program relies on two program components to achieve its goals: financial incentives and case management. Each of these program components has its own logic. With financial incentives, the program seeks to influence respondents' behavior by the offer of bonuses and the risk of sanctions, as shown in Figure 1.2. The program logic posits that participants will be appropriately motivated when they are aware of the incentives they face. They could become aware of the incentives when they are first introduced to the program in writing or at an orientation, or when they realize they must turn in their report card, or when they experience a bonus or a sanction, or when someone they know receives a bonus or sanction.

The strategy of case management is based on the logic laid out in Figure 1.3. The effectiveness of this program component depends on case managers helping clients to graduate who otherwise would not have. Case managers may arrange for needed services, provide information and referrals, or simply offer encouragement, sympathy and reassurance. These activities require a relationship between the case manager and the client, which could be established when the client follows up on the referral to case management from the welfare office, when the case manager approaches the client, or when the client seeks out case management services on her own.

The full Cal-Learn program combines these two elements as shown in Figure 1.4, weaving them together in a way that has the potential to reinforce each component. Case managers help implement the incentives policy by reviewing report cards and passing on recommendations for bonuses and sanctions to the welfare office, while clients may take advantage of assistance offered by case managers because they want a bonus or fear a sanction. Anecdotal information suggests that case managers frequently remind their clients of the possibility of receiving bonuses and sanctions, and sometimes collect report cards for their clients directly from the school. In a variety of ways, therefore, the two program components interact and can become greater than the sum of their individual parts.

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Figure 1.2 Logic Model for *Financial Incentives Only* Version of Cal-Learn

INPUTS Program component or intervention; resources.	PROGRAM ACTIVITIES What participants will actually do.	OUTPUTS Events resulting from program operations that will lead to program goals.	SHORT-TERM OUTCOMES Outcomes within the time frame of the study.	LONG-TERM OUTCOMES Program goals
Program provides financial incentives related to school progress in order to enhance motivation to succeed in school and to avoid dropping out.	Up to four times a year teens must turn in report cards or school progress reports. They can receive a bonus for satisfactory progress or a sanction for inadequate progress or dropping out. Teens may turn in proof of a high school diploma or GED and receive a graduation bonus.	Teens believe that incentives apply to them and understand why and how they could receive a sanction or bonus. Teens receive bonuses for school progress and graduations. Teens experience sanctions if they drop out of school or fail in school.	Teens return to school if they were dropouts; they remain in school until they graduate; they earn a high school diploma or GED. Teens refrain from having another child in the near future.	Prolonged welfare dependency is reduced. Employment and earnings are higher. Repeat early childbearing is reduced.

Figure 1.3 Logic Model for *Case Management Only* Version of Cal-Learn

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
Program component or intervention; resources.	What participants will actually do.	Events resulting from program operations that will lead to program goals.	Outcomes within the time frame of the study.	Program goals.
Program provides case management services through a local agency, to help teen parents overcome barriers to their school attendance and academic progress.	Teens are invited to meet with or talk to an assigned case manager who will help solve personal problems and advocate for them in areas such as child care, housing, schools, transportation, their own or their child's health.	Teens have meetings and telephone calls with case managers. Teens confirm they have a case manager and report that they have been helped by their case manager.	Teens return to school if they were dropouts; they remain in school until they graduate; they earn a high school diploma or GED. Teens refrain from having another child in the near future.	Prolonged welfare dependency is reduced. Employment and earnings are higher. Repeat early childbearing is reduced.

Figure 1.4 Logic Model for *Full Cal-Learn* Program

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	SHORT-TERM OUTCOMES	LONG-TERM OUTCOMES
Program component or intervention; resources.	What participants will actually do.	Events resulting from program operations that will lead to program goals.	Outcomes within the time frame of the study.	Program goals.
Program provides financial incentives related to school progress in order to enhance motivation to succeed in school and to avoid dropping out. Program provides case management services through a local agency, to help teen parents remove barriers to their school attendance and academic progress.	Up to four times a year teens must turn in report cards or school progress reports. They can receive a bonus for satisfactory progress or a sanction for inadequate progress or dropping out. Teens may turn in proof of a high school diploma or GED and receive a graduation bonus. Teens are invited to meet with or talk to an assigned case manager who will help solve personal problems and advocate for them in areas such as child care, housing, schools, transportation, their own or their child's health.	Teens believe that incentives apply to them and understand why and how they could receive a sanction or bonus. Teens receive bonuses for school progress and graduations. Teens experience sanctions if they drop out of school or fail in school. Teens have meetings and telephone calls with case managers. Teens confirm they have a case manager and report that they have been helped by their case manager.	Teens return to school if they were dropouts; they remain in school until they graduate; they earn a high school diploma or GED. Teens refrain from having another child in the near future.	Prolonged welfare dependency is reduced. Employment and earnings are higher. Repeat early childbearing is reduced.

The Cal-Learn Evaluation

Research Groups

The Cal-Learn evaluation was structured as an experiment, with participants randomly assigned to one of four different research groups. Three of the four groups received the Cal-Learn program elements separately or in combination, while the fourth group served as a no treatment control group. The evaluation could be termed a factorial design with random assignment. The analyses consist of planned comparisons of hypotheses of interest. We assess the impact of the full Cal-Learn program and the impacts of the two single treatments—intensive case management alone and financial incentives alone—by comparing outcomes in each of these treatment groups to the No Treatment group.

In this report the groups are designated as follows:

1. **Full Cal-Learn:** Case Management with Bonuses and Sanctions
2. **Case Management Only:** Case Management Only with No Bonuses or Sanctions
3. **Financial Incentives Only**: Bonuses and Sanctions Only with No Case Management
4. **No Treatment:** Neither Case Management nor Bonuses and Sanctions

All teens in the evaluation were offered supportive services, including reimbursement for child care, transportation to school, and school-related expenses.

Data Sources

As the following two chapters explain, we address these questions using a combination of survey data from clients, administrative data from the welfare program, and administrative data from the case management agencies. The raw data come from two waves of telephone interviews with the Cal-Learn participants using the Retrospective Survey instrument, and from a variety of administrative sources, including the county welfare and GAIN programs (GAIN is California's JOBS program), case management agencies' management information systems (LODESTAR) and the statewide Employment Development Department and Medi-Cal records (see Appendix D for detailed information on the data sources). These data were processed by UC DATA staff into an integrated database for the evaluation. This report also summarizes some of the information from UC DATA's implementation reports on the operational challenges of the program. These process evaluation reports were based on face-to-face interviews conducted with state and county staff in the health, education, and welfare agencies that are charged with providing services to Cal-Learn teens[6].

Evaluation Questions

The central questions of the evaluation are:

1. What impact does Full Cal-Learn compared to No Treatment have on graduation rates, persistence in high school, employment and welfare receipt?

2. What impact does Financial Incentives Only compared to No Treatment have on graduation rates, persistence in high school, employment and welfare receipt?

3. What impact does Case Management Only compared to No Treatment have on graduation rates, persistence in high school, employment and welfare receipt?

4. Do teens who start the program having dropped out of school respond differently to the Cal-Learn program and the other treatment conditions than teens who start the program enrolled in school?

5. Do teens who at some point in the past were held back a grade in school respond differently to the Cal-Learn program and the other treatment conditions than teens who do not have a history of being held back in school?

6. What are the educational impacts of actually seeing a case manager (rather than being offered case management but not necessarily using it) and of expecting bonuses and sanctions on educational outcomes?

7. How does participation in Full Cal-Learn rather than Case Management Only affect the probability that a teen meets with a Cal-Learn case manager, the frequency of her case manager contacts, or the perceived helpfulness of these contacts?

8. How does participation in Full Cal-Learn rather than Financial Incentives Only affect the probability that a teen is aware of her eligibility for bonuses and sanctions, the probability that she receives a bonus or a sanction, and her assessment of bonuses and sanctions as motivators?

9. Which supportive services are most heavily used by teens, and does utilization differ among teens in the four research groups?

10. Do birth rates and contraceptive use differ among teens in the four research groups?

11. What are the patterns of teens' use of child care and their perceptions of social support while in Cal-Learn?

12. What types of school programs do Cal-Learn teens enroll in?

II. RESEARCH DESIGN AND ANALYSIS PLAN

Research Design

Design

The evaluation of Cal-Learn examines the effects of the two program elements – intensive case management and financial incentives– alone and in combination. In order to compare outcomes for teens exposed to both, one, or neither of these program elements, teens in the research counties were randomly assigned to one of four research conditions. Teens in the first group, *Full Cal-Learn*, were offered case management and subjected to bonuses and sanctions; teens in the second group, *Case Management Only*, were offered case management, but could receive neither bonuses nor sanctions; teens in the third *Financial Incentives Only* group could receive bonuses and sanctions but were not directed toward case management; and teens in the last group, the *No Treatment* group, were neither directed toward case management nor eligible to receive bonuses or sanctions. All teens in the evaluation were offered supportive services, including reimbursement for child care, transportation to school, and school-related expenses. The Full Cal-Learn treatment, including both case management and financial incentives, corresponds to the treatment and services received by Cal-Learn teens in the statewide program.

Figure 2.1: Cal-Learn Research Design

Case Management **Financial Incentives** (Supportive Services)	**Case Management** No Financial Incentives (Supportive Services)
Financial Incentives No Case Management (Supportive Services)	No Case Management No Financial Incentives (Supportive Services)

Sample Selection and Randomization

This report is based on data drawn from state and county administrative records for 3957 Cal-Learn participants and from interviews with 2156 of those participants; these two samples are referred to below as the administrative evaluation sample and the survey evaluation sample. A detailed discussion of these data sources is presented in Appendix D.

The evaluation samples were selected from the lists of all teens in each research county who appeared to be potentially Cal-Learn eligible based on electronic and paper records which indicated that they were pregnant or custodial teen parents on welfare. From this list of individuals who might be Cal-Learn eligible, a teen would be randomized into the Cal-Learn evaluation if she met Cal-Learn program eligibility requirements as defined in Cal-Learn regulations, Manual of Policies and Procedures, Section 42-763; if she was eligible for AFDC and new to the Cal-Learn program; if she was not a member of a household participating in the

California Work Pays Demonstration Project (another welfare experiment); and if she was 18 ½ years or younger.

Teens randomized into the evaluation were assigned to one of the four research cells based on the last two digits of their Social Security numbers. Exceptions to assignment by Social Security number were made when more than one teen in the same household was Cal-Learn eligible. In these cases, all teens in the same household were assigned to the same research group. This randomization process was implemented very accurately; when each teen's assigned research group was compared to the assignment she should have had based on her Social Security number, 98% of the teens in the evaluation were found to have been correctly assigned.

Randomization of teens into the evaluation started in San Bernardino in November 1994 on a "pilot" basis, followed by Alameda County (in August 1995), San Joaquin County (in September 1995) and Los Angeles County (in December 1995). All randomization of teens into research groups ended by June 30, 1997 (the end of the 1996-97 fiscal year). In each county, randomization stopped in each fiscal year when the county reached number of teens it was expected to randomize into the evaluation in that fiscal year.

About 8% of teens statewide who were originally enrolled in the Cal-Learn program were later found to not meet Cal-Learn participation criteria and were deregistered.[7] These teens were mistakenly registered because the Cal-Learn program does not require an initial orientation or intake process, so they were enrolled into the Cal-Learn program and the Cal-Learn evaluation without any in-person assessment. A later interview with a welfare worker revealed that they did not meet Cal-Learn program criteria: they had already graduated, or they were not in fact living with their own minor children, or some element of the information about them in the electronic record was incorrect.

Evaluation Samples

The evaluation samples are subsets of the randomized teens. Teens who were randomized but later deregistered are not included in the evaluation samples. In addition, male Cal-Learn teens are excluded from the evaluation samples, because the survey was not appropriate for men and they were too small a group to warrant a separate study. Teens were also excluded if they participated in Cal-Learn for less than six months. This cutoff period was selected because the typical teen is not eligible to experience a bonus or sanction until she has been in Cal-Learn for at least six months. Teens are not evaluated for a bonus or sanction for the first three months in Cal-Learn. The next report card after this initial period is assessed for an incentive, but typically, at least two months elapse before a bonus or sanction is actually applied to the welfare grant. Thus, the earliest conceivable date that a bonus or sanction could be applied is five months after enrollment, and in fact, virtually none were applied before six months.

The criterion that a teen have at least six months' participation in Cal-Learn to be included in the evaluation is applied separately to the administrative sample and to the survey sample. Teens are excluded from the administrative data evaluation sample if the administrative data indicate that a teen had less than six months of active Cal-Learn exposure in a research county. This, teens who within their first six months in Cal-Learn acquired an HSD or GED (and had the graduation recorded in the administrative data), lost custody of their child(ren), moved to a non-research

county or out of state, or left AFDC are excluded from the study. A teen would be excluded from the survey sample if in the first interview she reported earning an HSD or a GED either within six months after Cal-Learn entry or before entering Cal-Learn, or if she left the administrative sample within six months for the reasons just noted. A teen who did not have a graduation recorded in the administrative data, but reported in the survey that she graduated (for example) one month after entering Cal-Learn, would be included in the administrative evaluation sample but not in the survey evaluation sample.

A total of 4859 teens were in the administrative data file after males and those registered in error were removed. Of this group 174 (4%) had graduations recorded within six months of Cal-Learn entry and a further 728 (15%) left Cal-Learn within six months for other reasons, leaving 3957 teens in the administrative evaluation sample.

A total of 2682 teens were in the survey data file after males and those registered in error were removed. Of this group 65 (2%) reported graduating *before* they enrolled in Cal-Learn. This information suggests that they had been registered in error; however, because the information was gathered in the evaluation rather than by Cal-Learn staff these teens were not deregistered. A further 189 (7%) reported graduating within six months of Cal-Learn entry and 272 (10%) left Cal-Learn within six months for other reasons. The remaining 2156 teens comprise the survey evaluation sample.

Requiring teens to have six months of program exposure reduced the amount of data available for the evaluation, but did not skew the results of the impact evaluation, as the detailed information in Appendix E shows. Approximately 7% of those not registered in error reported graduating within the first six months of program, a rate that was virtually identical in all four research groups.

Analysis Plan

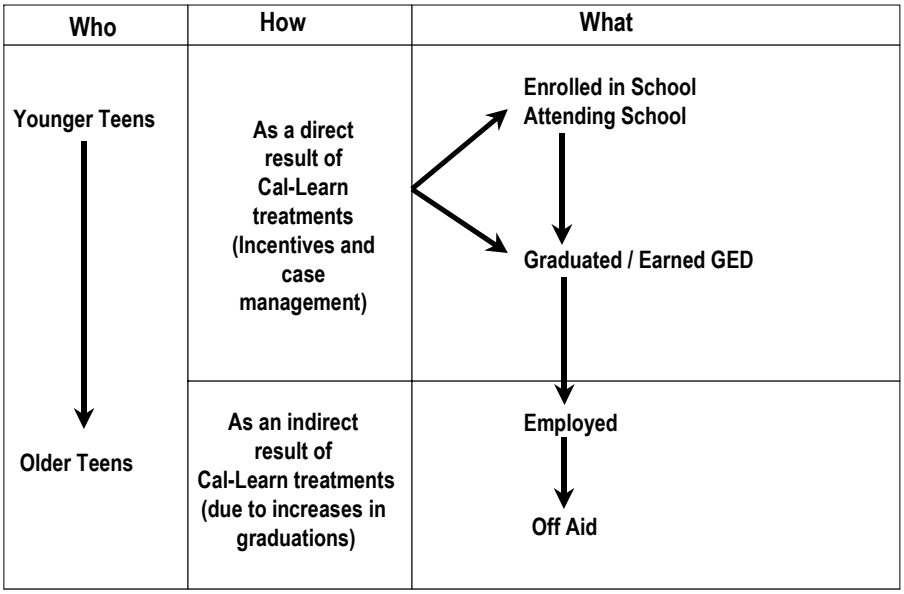
Overview

While the immediate goal of Cal-Learn is to increase HSDs and GEDs among participants, its ultimate goal is economic self-sufficiency for participants. This evaluation tracks each teen's progress toward the program goals by measuring her educational success, employment and welfare receipt. Educational success is identified as graduating from high school, receiving a GED, or remaining in school (rather than dropping out without a diploma or GED). A teen's employment outcomes include whether she ever had a job after turning sixteen, the percentage of time she was employed, and her earnings. Welfare receipt includes time in AFDC/TANF. Both the Retrospective Survey and the administrative data provide useful indicators of educational attainment, employment and welfare receipt. In the chapters devoted to these individual topics (Chapters III and V) we discuss exactly how the outcomes are measured in each data source.

The Cal-Learn program logic suggests that it is inappropriate to examine all the outcomes for all teens. The economic self-sufficiency outcomes are the endpoint of a process that starts by enrolling a teen in school and providing her the resources and motivation to remain on track for

graduation. High school graduation should then give her a better opportunity to get a good job and earn enough to leave welfare. As Figure 2.2 illustrates, the program does not seek to increase employment and graduations among younger teens, but only among those who for whom these activities are age-appropriate. Thus, although some outcomes are reported for teens of all ages, older teens are the main focus of the comparisons of graduations and economic self-sufficiency among research groups.

Figure 2.2: Expected Sequence of Successful Outcomes



We use planned comparisons to measure treatment impacts on outcomes of interest. The first comparison is between the Cal-Learn program as implemented in the entire state (the Full Cal-Learn treatment) and a program offering neither case management nor incentives (the No Treatment assignment). In addition, each of the individual program elements is treated as a possible program option, so teens receiving Case Management Only and teens receiving Financial Incentives Only are compared to the No Treatment controls. For all these comparisons the statistical tests used are independent-samples t-tests, although more elaborate statistical models are sometimes used as well.

The analysis of participants' employment and welfare receipt similarly compares outcomes for each of the three treatment groups to outcomes among the No Treatment controls. The logic of the Cal-Learn model is that graduation will help teens become economically self-sufficient. Accordingly, we compare employment and welfare outcomes for teens who graduate from high school to outcomes for teens who did not graduate, finding that (as the program logic suggests) graduates are more likely to have jobs and less likely to be on welfare than non-graduates.

The survey and administrative data are sufficiently rich to allow us to examine the mechanisms through which treatment impacts are achieved. If the program has been implemented as intended, then a participant assigned to case management should say she met with or talked with a case manager. Participants assigned to bonuses and sanctions should believe that they are (or were) eligible for bonuses or at risk for sanctions. Chapter IV explores the impacts of each of the alternative treatments among those who report actually experiencing the appropriate treatment. In that analysis, the treatment groups are restricted to participants who reported experiencing the treatments that match their random assignment condition: i.e., Full Cal-Learn participants who said they saw a case manager and believed they were subject to financial incentives, Financial Incentives Only participants who said they did *not* see a case manager and who believed they were subject to financial incentives, and Case Management Only participants who said they saw a case manager and did *not* believe they were subject to financial incentives. Outcomes for these restricted treatment groups are compared to the outcomes for the No Treatment group restricted to participants who said they did *not* see a case manager and who did not believe they were subject to financial incentives.

This analysis serves to validate the program logic and to pinpoint potential problem areas in implementation. However, the groupings are not based on random assignment so the results must be interpreted with caution. The estimated impacts reported in Chapter IV can be considered the upper bounds of what the treatment effects would appear to be if none of the No Treatment controls received services and none of them expected bonuses, and if all Full Cal-Learn teens had experienced both treatment components of the Cal-Learn program.

Limitations of the Research

It is important to understand how the context and the design of this evaluation limit its generalizability. The study was conducted at the same time that the full Cal-Learn program was initiated statewide. Because the evaluation operated against the backdrop of the statewide Cal-Learn program, participants may not have clearly understood the nature of the treatment condition they were randomized to receive. In three of the four counties studied, almost all Cal-Learn participants were in the evaluation and randomly assigned into one of four treatment conditions, but in Los Angeles only a small fraction of the caseload (less than one-third) was randomized, with all the rest enrolled in the full Cal-Learn program. According to the survey, many of the teens in the evaluation believed that they were in the full Cal-Learn program, even though they had been assigned to one of the other treatment groups or to No Treatment. It was also common for teens to believe they were not in the Cal-Learn program at all, when in fact they were assigned to one of the treatment groups.

This confusion could have diluted—and led us to underestimate—the program impacts that would have been seen if all participants had understood correctly their treatment condition, since any misperceptions among Full Cal-Learn teens would have tended to make them more like No Treatment teens, while misperceptions on the part of No Treatment teens would have led them to behave more like teens in a treatment group. The net effect would be to underestimate the full extent of the differences in outcomes between the two groups.

The various data sources on which this report is based each has its own limitations. In particular, graduations appear to be incompletely reported in the administrative data. Only half (54%) of the graduations reported in the Retrospective Surveys are recorded in the administrative data, even though they occurred during the period covered by administrative data. Comparisons of the survey data with lists of graduates provided by teen's schools provide a strong degree of confirmation of the survey reports of graduation, as do the confirmation rates for GEDs derived from the data provided by the California Department of Education (see Appendix F for more detail). Consequently, the critically important educational outcomes are assessed here using self-report data from the two waves of the Retrospective Survey, both alone and in conjunction with the administrative data.

Of the 3957 teens included in the administrative evaluation sample, 58% were located and interviewed for the Retrospective Survey. The non-response rate reduces the size of the survey sample compared to the administrative sample and makes statistical significance more difficult to achieve for comparisons in the survey sample. However, comparisons of outcomes for the Full Cal-Learn or the single-treatment groups with outcomes for No Treatment controls are valid in the survey sample. These comparisons are valid because the four randomized groups resemble each other to a remarkable degree in the survey evaluation sample as well as in the administrative sample (see Appendix E for details). Consequently, data from the survey are used to assess the impact of the Full Cal-Learn and the single-treatment groups on educational and employment outcomes, in addition to the data from the administrative sample and from official records.

Although the four research groups in the survey sample resemble each other, the surveyed teens as a group are somewhat different from the non-interviewed teens, as Appendix G shows. Non-interviewed teens were either less successful in school, or less inclined to bring evidence of their successes to the welfare office. Non-respondents had significantly fewer progress bonuses and, according to the administrative data, were significantly less likely to have graduated, than teens who responded to the survey. They were also less likely to have had case manager contact. These differences suggest caution in generalizing from the survey sample as a whole to the population of Cal-Learn teens.

PART TWO

CAL-LEARN TREATMENT EFFECTS

III. IMPACTS ON SCHOOL ENROLLMENT AND GRADUATION

Introduction

This chapter presents the impacts of the treatments on teens' educational outcomes. The educational outcomes we examine are defined in several ways. We first examine an aggregate measure of high school completion, marked by the teen either obtaining a high school diploma (HSD) or a GED. Each type of successful completion is also examined separately. We then look at measures of school continuation, including current enrollment in school, ongoing participation in a GED program, and dropping out.

Program impacts are estimated by comparing outcomes in each of the treatment groups – Full Cal-Learn, Financial Incentives Only, and Case Management Only – to the No Treatment control group outcomes.

The sources for the data on educational outcomes are discussed in the first section of the chapter. The second section of the chapter provides estimates of the effects of the treatments on graduations and school continuation using a variety of analytic models. The last section of the chapter estimates effects separately for groups of teens who might be expected to derive different levels of benefit from the program: teens who were enrolled in school when they entered Cal-Learn versus those who were dropouts, and teens who had been held back a grade in school relative to those who had not.

Educational Outcome Variables

The Cal-Learn legislation identified three types of "graduation" by which a participant could earn a graduation bonus and exit from Cal-Learn: a high school diploma (HSD), a GED, and a passing score on the California High School Proficiency Exam (CHSPE). Students may take the CHSPE as early as age 16, and technically, passing the CHSPE is equivalent to a high school diploma. The data reveal, however, that neither participants nor welfare workers seemed in practice to regard the CHSPE as a real graduation. In the administrative data, only one bonus has been awarded for passing the CHSPE. It is not unusual for participants to take the CHSPE exam – some 13% of survey respondents report passing the exam – but these participants do not seek or receive a graduation bonus for this achievement nor do they exit Cal-Learn as a result. More than three-fourths of these teens report that they are still in high school, although they have passed the examination. This finding supports anecdotal evidence that suggests some schools use the CHSPE as an assessment tool. Given that neither schools, nor students, nor the case-managers seem to consider passing the CHSPE as a graduation, we do not use the CHSPE as an outcome to be compared among randomized groups.

Data on graduations are available in both survey and administrative data. All survey respondents were asked their educational level and whether they had graduated from high school or had earned a GED. In contrast to the survey data, the administrative data in the welfare and case management systems reflect only recorded graduations that have been verified by school clerks

at the request of case managers or welfare workers. In Los Angeles, the administrative data do not distinguish between GEDs and HSDs. In addition to these sources, rates of GED receipt for selected groups of Cal-Learn teens were provided by California Department of Education, GED Division. While these official GED data are not available for individual teens, they were calculated for forty-four subsets of the entire Cal-Learn evaluation samples, permitting accurate comparisons for a number of subsamples as well each research group as a whole.

Cal-Learn was also designed to reduce dropping out among participants. The administrative data do not record school enrollment or dropping out among teens, but the Retrospective Survey does. Teens are counted as having dropped out of high school if, at the time of the latest Retrospective Survey interview, they do not have a GED or an HSD and are neither enrolled in school nor a GED program nor on summer break.

Consistency Between Outcomes Recorded in Administrative Data and Reported in Survey Data

The proportion of Cal-Learn participants that had graduations (either HSDs or GEDs) recorded in the county administrative data is shown for each of the four randomized groups in Table 3.1. Some of these graduations were recorded when graduation bonuses were awarded to teens, but others (including the graduations of No Treatment and Case Management Only teens) were recorded without bonuses being awarded. The Full Cal-Learn group had a significantly higher rate of graduations in the administrative data than other groups did, and the No Treatment group had a significantly lower rate.

Table 3.1: Percent of Teens With a High School Diploma or GED by Research Group

	Research Group				All
Administrative Data	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
All Teens					
Graduated	17.5	13.5	10.7	4.7	11.6
Sample Size	1007	976	964	1010	3957
Age 18 & Over					
Graduated	17.4	12.8	9.8	4.4	11.0
Sample Size	791	756	772	839	3158

SOURCE: County administrative data
NOTE: Age 18 or older as of last active month in Cal-Learn

However, comparisons to the graduation data available from other sources – the Retrospective Survey, official GED data from the California Department of Education, and graduation lists from schools themselves – make clear that graduations are incompletely and inconsistently recorded in the administrative data. Table 3.2 shows the rates at which graduations recorded in the administrative data appear in the survey data, and vice-versa, restricting the contrasts to graduations that theoretically ought to appear in both data sources because thy occurred during time periods covered by both data sources. The upper half of the table suggests that the administrative data fail to reflect about half (53%) of the graduations reported in the survey. In

contrast, as the lower panel shows, virtually all (97%) of the graduations that are in the administrative data are also reported in the survey.

Table 3.2: Confirmation of Graduations Across Data Sources

Survey Graduations Confirmed in the Administrative Data

Administrative Data and Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Percent Confirmed	71.1	61.5	67.6	20.8	52.6
Sample Size	97	91	102	103	420

Administrative Graduations Confirmed in the Survey Data

Administrative Data and Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Percent Confirmed	98.9	95.4	95.5	96.3	96.6
Sample Size	91	108	67	27	293

SOURCE: County administrative data and Retrospective Survey Wave I & II
NOTE: Sample includes teens with less than 6 months of Cal-Learn program exposure.

The contrasts in Table 3.2 imply either that respondents to the survey reported graduations which did not occur, or that the administrative data omit graduations. To test these two possibilities we compared both data sources against high school records of graduations and Department of Education GED data. The results of these investigations (discussed below and in Appendix F) demonstrate that research groups have varying proportions of their graduations recorded in the administrative data, and that in every group graduations are incompletely recorded in the administrative data. The No Treatment teens had the smallest fraction (21%) of their graduations recorded in the administrative data while Full Cal-Learn teens had the largest fraction (71%), with the result that between-group comparisons of graduations are seriously biased if they are based on the administrative data. The survey data may to some degree overstate graduation rates, but there is no evidence of difference between groups in the rate at which graduations are reported in the survey.

Even in the group with the highest fraction of self-reported graduations recorded in administrative data -- the Full Cal-Learn group -- 29% of reported graduations were not recorded. Since graduations must be confirmed and recorded in order for teens to receive graduation bonuses, these teens did not receive the graduation bonuses to which they were entitled.[8] This incomplete take-up of graduation bonuses is one aspect in which the Cal-Learn program is not working as anticipated or intended.

Graduations could have been under-recorded in the administrative data because some graduating teens may not have realized that they had to record their graduation with their welfare worker, or

because they found reporting to be inconvenient or time-consuming. Teens assigned to case management or financial incentives were at least three times more likely to have their self-reported graduations recorded in administrative data than were the No Treatment teens. Some of them had a financial incentive of $500 to have their graduations recorded (as long as it occurred before the teen left Cal-Learn), and some had a Cal-Learn case manager to help them have the graduation recorded, and if they were in Full Cal-Learn , they had both. In the No Treatment group, where only one in five of the survey graduations appear in the administrative data, teens had no financial incentive to have their graduations recorded and no case manager to urge them to do it or to do it for them.

Validation and Confirmation of the GEDs and HSDs Reported in the Survey

Different strategies were followed to validate the data for high school diplomas and GEDs in the administrative and survey data. To verify HSDs, UC DATA staff requested commencement programs or lists of graduates for the years 1995-1998 from the schools from which respondents reported graduating. Eighty-eight schools responded, and on these lists we found 171 of the teens who reported graduations from one of these schools, and failed to find 44 of the teens reporting graduations from these schools. For a further 141 teens with reported graduations, no school information was received.

Reports of GEDs were confirmed for groups of respondents, rather than individuals, with assistance from the staff at the California Department of Education, GED Division. Individual confirmations were precluded by confidentiality rules. It was possible, however, to confirm rates of GED receipt for teens in each treatment group as a whole, as well as among teens whose survey and administrative sources disagreed on GED receipt. Three-fourths of teens reporting receiving a GED were marked as successfully passing the GED in the CDE's GED database. A further 8% appear to have taken the GED and not passed although they reported that they had passed. Even among teens whose county administrative data failed to note a GED, the CDE's database reported 61% passing, with an additional 12% unsuccessfully taking the GED.

These validations suggest that although the survey data are largely reliable, they may overstate teens' level of successful high school completion. Based on the confirmation rates it is possible to estimate the extent to which graduations are over-reported in the survey data. The specific methods are discussed in the following paragraphs; the conclusion is that HSDs may be over-reported by about 8%, and GEDs by about 20%.

To estimate the proportion of HSDs that are valid, we start with data for the teens in the Full Cal-Learn group, who had both a financial stake and assistance from case managers in getting their graduations recorded in the administrative data. Among these teens, 71% of their reported HSDs were verified by county personnel and recorded in the administrative data. This rate (71%) represents the base rate of confirmation that we would expect if all teens in the evaluation had the same motivation for and assistance with reporting that Full Cal-Learn teens had. Of the 29% of Full Cal-Learn survey-reported graduations not recorded in the county administrative data, 74% of the ones that could be checked against school commencement lists were verified. The

fact that 26% of the HSDs were not confirmed suggests that the survey data may over-report HSDs by about 8% (26% of 29%).

The conclusions from the GED validation are similar to those from the HSD validation. Among survey respondents who reported earning a GED, 50% are recorded in county administrative data as having graduated. Of the GEDs not recorded in county files, 61% were confirmed by staff at the GED Division of the California Department of Education. Adding this additional 30% of graduations confirmed by the GED Division to the 50% found in county administrative records indicates that approximately 80% of the GEDs reported in the survey are valid.

The overall conclusion to be drawn from the survey validation efforts is that graduation rates among survey respondents are unlikely to be more than 10% lower in all groups than the survey results show: 20% lower for GEDs and 8% lower for HSDs. Program effects estimated using only survey data may therefore overstate impacts by up to 10%. However, the validation effort also indicates that graduations are not over-reported in the survey data more for one research group than for others. Hence, the preferred basis for estimates of treatment impacts on HSDs and total graduation rates is the survey data. However, given that official data from the California Department of Education are available for the GEDs earned by each of the research groups, these data are our preferred source to estimate impacts on GED receipt.

Educational Impacts

The first three tables in this section provide description and analyses of educational outcomes based on data drawn from the surveys. Table 3.3 opens with an overview of the educational status of all survey respondents at their most recent interview. This broad picture is followed by more detailed information for each of the four research groups. After comparing the No Treatment group to the three treatment groups in terms of their unadjusted graduation rates (Table 3.4), we use survival analysis techniques to compare the probabilities that a teen graduates or drops out by her nineteenth or twentieth birthday (Table 3.5).

The focus then shifts from the survey sample to the entire evaluation sample. Rates of GED acquisition are shown for the entire evaluation sample in Table 3.6 using official GED data. In Table 3.7 we estimate a graduation rate for each research group in the administrative sample using a combination of survey and administrative data adjusted for under-recording of data in administrative sources.

In the final section of the chapter, the survey data are used to compare Cal-Learn program impacts for teens out of school and teens still in school at their entry into Cal-Learn, and for teens who have or have not been held back a grade in school. The chapter concludes with a table summarizing various estimates of Cal-Learn's impact on graduations.

Educational Status of All Survey Respondents, by Age

The Retrospective Survey asked detailed questions about each respondent's current educational status and her schooling history. Table 3.3, showing educational status by age, is based on the

most recent interview for each teen (the Wave II interview for 1562 teens, and the Wave I interview for the remaining 594 teens).

Among teens 15 and under, 85% are enrolled in school; this proportion declines steadily as teens age, although we still find about 15% of teens age 19 and older enrolled. Teens become eligible to take the GED at 17, and after age 17 about 7% are enrolled in classes preparing for the GED rather than in regular high school.

Among 18- and 19-year-olds, about 22% have earned a high school diploma, and about 10% have earned a GED, with a total of 32% graduated in this age-range. School enrollment is much higher among 18-year-olds than 19-year-olds. As we show below (see Table 3.5), about 39% of all teens in the evaluation graduated by their 20th birthday. By that time about 55% of them have dropped out, while about 5% are still in an educational program.

Teens interviewed when they were age 20 and above were a very distinct group. Their average age at Cal-Learn entry exceeded 18, most already had children at enrollment (whereas many younger teens enrolled when pregnant with their first child), and half had already quit school. Consequently, their graduation rates are lower and their dropout rates higher than the rates for teens who enrolled at younger ages. Had Cal-Learn been in effect when these older teens became pregnant, they presumably would have enrolled in the program at younger ages and perhaps followed different educational paths.

Table 3.3: Educational Status at Most Recent Interview by Age

	Age at Most Recent Interview						
Self-Report	15 or Under	16	17	18	19	20 & Over	All
Graduation	0.0	2.1	13.0	31.6	31.8	16.6	24.7
HS Diploma	0.0	2.1	11.0	23.8	20.0	8.2	16.5
GED	0.0	0.0	2.0	7.8	11.8	8.4	8.2
Enrolled in School	84.8	75.0	60.4	25.9	15.2	14.7	27.0
In GED Program	0.0	2.1	4.1	8.0	6.8	5.1	6.2
Dropped Out	15.2	20.8	22.4	34.4	46.2	63.6	42.2
Sample Size	33	96	245	613	719	450	2156

SOURCE: Retrospective Survey Wave I & II

Survey Sample: Comparisons between Research Groups

The effects of the three treatment conditions – Full Cal-Learn, Financial Incentives Only, and Case Management Only – are compared to the No Treatment control group in the survey using three different approaches: unadjusted comparisons across groups (Table 3.4), regression-adjusted comparisons (not shown), and a synthetic cohort approach (Table 3.5).

Table 3.4: Educational Outcomes and Program Impacts by Research Group

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Age 18 & Over at Most Recent Interview					
Graduation	31.5	29.1	27.0	24.2	28.0
HS Diploma	18.4	19.2	17.7	18.1	18.4
GED	13.1	9.8	9.3	6.1	9.6
Enrolled in School	18.4	19.9	20.0	16.8	18.7
In GED Program	7.7	6.3	6.4	6.8	6.8
Dropped Out	42.5	44.7	46.5	52.3	46.5
Sample Size	457	447	419	459	1782
Age 17 & Under at Most Recent Interview					
Graduation	9.3	9.3	10.0	7.7	9.1
HS Diploma	7.2	8.1	8.0	7.7	7.8
GED	2.1	1.2	2.0	0.0	1.3
Enrolled in School	67.0	68.6	66.0	63.7	66.3
In GED Program	4.1	3.5	1.0	4.4	3.2
Dropped Out	19.6	18.6	23.0	24.2	21.4
Sample Size	97	86	100	91	374

Program Impacts:
Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Age 18 & Over at Most Recent Interview					
Graduation	7.3*	4.9	2.8	---	---
HS Diploma	0.3	1.1	-0.4	---	---
GED	7.0***	3.7*	3.2	---	---
Enrolled in School	1.6	3.1	3.2	---	---
In GED Program	0.9	-0.5	-0.4	---	---
Dropped Out	-9.8**	-7.6*	-5.8	---	---
Age 17 & Under at Most Recent Interview					
Graduation	1.6	1.6	2.3	---	---
HS Diploma	-0.5	0.4	0.3	---	---
GED	2.1	1.2	2.0	---	---
Enrolled in School	3.3	4.9	2.3	---	---
In GED Program	-0.3	-0.9	-3.4	---	---
Dropped Out	-4.6	-5.6	-1.2	---	---

SOURCE: Retrospective Survey Wave I & II

NOTE: Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

The approach in Table 3.4 is a straightforward comparison of the educational outcomes across research groups. Among teens age 18 and over (the upper panel of Table 3.4), the Full Cal-Learn group has a significantly higher graduation rate than the No Treatment controls (31% compared to 24%). This effect is entirely due to a rate of GED acquisition that is twice as high among Full Cal-Learn teens as among No Treatment teens (13% compared to 6%); the two groups earn high school diplomas at identical rates (18%). The Full Cal-Learn teens are also two percentage points more likely than No Treatment teens to be enrolled in school or a GED program.

Among teens younger than 18, Full Cal-Learn teens are two percentage points more likely to have graduated, three percentage points more likely to be enrolled in school and five percentage points less likely to have dropped out than No Treatment teens. These differences are in the expected direction but are not statistically significant.

The effects of Financial Incentives Only and Case Management Only are generally positive when compared to the No Treatment condition, but smaller than the effects of Full Cal-Learn and typically non-significant. Like the Full Cal-Learn treatment, these treatments act principally by increasing GEDs, although the effects are only half the magnitude of the Full Cal-Learn treatment. Dropout rates for older teens are lower by a statistically significant 8 percentage points among Financial Incentives Only teens and by 6 percentage points for Case Management Only teens.

Because the four research groups were created through random assignment, they were expected to be very similar to each other at program entry, and indeed, they are. Even so, there are small differences between groups in the ages at which teens enrolled in Cal-Learn and in their histories of public assistance (see Appendix E). In addition, case managed teens were slightly less likely than other teens to participate in the second wave of the survey, with the result that they appeared in the survey data to have graduated at a slightly lower rate than teens in other treatment groups. To correct for these between-group differences we estimated program effects using multiple logistic regression, a statistical technique that adjusts for differences between groups.

The impacts estimated with these statistical adjustments were very similar to the results shown in Table 3.4. With the adjustments, the Full Cal-Learn group age 18 and over was 6.3 percentage points more likely to graduate than the No Treatment group (compared to the effect shown in Table 3.4 of 7.3 percentage points). This gain in graduations was still entirely due to their greater acquisition of GEDs. The relative impacts of Financial Incentives Only and Case Management Only were also similar to those shown in Table 3.4, with both groups associated with a statistically significant gain of 3.6 percentage points in GEDs. The similarity between the regression-adjusted estimates of program effects and the unadjusted estimates in Table 3.4 lead to the reassuring conclusion that the results in Table 3.4 are not biased by any measurable differences that may exist between research groups.

The data in Table 3.4 describe a cross-section of Cal-Learn teens. The table does not capture the teens' educational trajectories over time nor their ultimate chances of graduation. A very long-run study which successfully followed these young women for many years would provide that picture, but such data are not available here. Instead, in Table 3.5 we have used a technique

common in demography, a synthetic cohort life table approach, to estimate the cumulative probabilities of graduations and dropping out. We use each graduating teen's report of the age when she graduated to estimate an age-specific graduation rate for everyone who passes through that age, and each non-graduate's report on the age she last attended school to estimate an age-specific dropout rate for everyone who passes through that age. The endnote[9] explains this procedure in more detail. Table 3.5 reports impacts estimated using this synthetic cohort approach.

As the table shows, a substantial number of Cal-Learn enrollees graduate between their 19th and 20th birthdays. The percent graduated increases from 23% at the start of the year to 39% at the end. Nearly half (47%) of Full Cal-Learn teens graduate with 21% earning GEDs and 26% earning HSDs. In contrast, only one-third of No Treatment teens graduate with 9% earning GEDs and 24% earning HSDs. No Treatment teens are significantly more likely to drop out by age 20 than Full Cal-Learn teens (60% compared to 52%).

The Financial Incentives Only and the Case Management Only treatments also encourage graduations at a higher rate than does the No Treatment condition. The sum of the effects of the Financial Incentives Only and the Case Management Only treatments by age 20 is approximately equal to the overall Full Cal-Learn effect.

The difference between Full Cal-Learn and No Treatment widens substantially between teens' 19th and 20th birthdays. There are only 3 percentage points more graduates among Full Cal-Learn than No Treatment teens at age 19, but 14 percentage points more graduates by age 20. The widening impact of Cal-Learn during this year is particularly interesting given that during the evaluation period almost all respondents exited the Cal-Learn program by their 19th birthday. (Teens now have the option of staying in Cal-Learn until they turn twenty if they are in school, but few in our sample did this). Many of the additional graduations that are attributable to the Full Cal-Learn program were not rewarded with graduation bonuses, because teens were not eligible for financial incentives after they left the program.

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Table 3.5: Educational Outcomes and Program Impacts by Research Group: Estimated by Synthetic Cohort Life Table Approach

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
By 19th Birthday					
Graduation	24.0	23.9	22.2	20.6	22.7
HS Diploma	15.8	17.5	17.0	17.2	16.9
GED	8.2	6.6	5.1	3.4	5.8
In School or GED Program	37.9	34.7	32.7	30.5	34.0
Dropped	38.1	41.4	45.1	48.9	43.3
By 20th Birthday					
Graduation	46.5	39.1	38.7	33.0	39.4
HS Diploma	25.8	24.5	22.7	24.0	24.2
GED	20.7	14.7	16.1	9.0	15.1
In School or GED Program	1.7	6.8	5.3	7.4	5.3
Dropped Out	51.8	54.0	55.9	59.6	55.3
Sample Size	528	498	584	517	2027

Program Impacts: Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
By 19th Birthday					
Graduation	3.4	3.3	1.6	---	---
HS Diploma	-1.4	0.3	-0.2	---	---
GED	4.8***	3.1*	1.7	---	---
In School or GED Program	7.4	4.2	2.2	---	---
Dropped Out	-10.8***	-7.6**	-3.8	---	---
By 20th Birthday					
Graduation	13.5***	6.1*	5.7	---	---
HS Diploma	1.8	0.5	-1.3	---	---
GED	11.7***	5.7**	7.1**	---	---
In School or GED Program	-5.7	-0.6	-2.1	---	---
Dropped Out	-7.8**	-5.6	-3.7	---	---

SOURCE: Retrospective Survey Wave I & II

NOTE: Based on exposure-adjusted cumulative survival estimates of achieving each status by specified age.
Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Full Sample: Comparisons between Research Groups

Each of the analyses based on the survey data – the unadjusted comparisons, the regression-adjusted comparisons, and the life-table based estimates – suggests statistically significant impacts of Cal-Learn. The next two analyses extend these findings by drawing upon data that are available for the entire sample of Cal-Learn teens.

Using GED Administrative Data to Estimate GED Rates

A key finding from the survey analysis is that although Full Cal-Learn has very little impact on high school diplomas, it does lead to more GEDs. Table 3.6 reports the proportion of Cal-Learn teens in the administrative sample who, according to the GED database of the California Department of Education, have earned a GED. The Full Cal-Learn group earn GEDs at a significantly higher rate than No Treatment teens, although program impacts are smaller than those suggested by the survey data. Among all teens, Full Cal-Learn is associated with a 4.0 percentage point gain in GEDs. Among teens who had turned 20 by December of 1999, it is associated with a 4.4 percentage point gain, and among teens who had turned 22 by December of 1999, it is associated with a 7.5 percentage point gain. (Because the GED data are available for all teens until December of 1999 the samples of teens at age 20 and over and age 22 and over are large enough to warrant separate analyses. Virtually all teens are age 18 and over by that date.)

The gains in GEDs reported in Table 3.6 are smaller than those estimated in the survey data, but still proportionately large; Full Cal-Learn teens earn GEDs at a rate 50% higher than the No Treatment teens among all ages, and earn GEDs at double the rate by the time they turn 22.

Combining Administrative and Survey Data to Estimate Graduation Rates

The second approach using the entire sample of teens in the administrative data combines the administrative and survey data on graduations. As we saw in Table 3.2, the administrative data cannot be used on their own to estimate graduation rates because the proportion of teens who recorded their graduations with their welfare workers varied dramatically across the four research groups. However, if the proportions that reported their graduations were known it would be possible to estimate an unbiased graduation rate for each group from the administrative data. Because a large group of individuals appear in both the administrative and the survey data, the group-specific recording proportions can be estimated. They are calculated as the ratio of graduations in the administrative data to graduations in the survey data. These proportions, called "recording rates", are shown in the bottom row of each panel in Table 3.7.

Full Cal-Learn teens had the highest recording rate (76%), and No Treatment teens the lowest rate (25%). Financial Incentives Only and Case Management Only had recording rates of 64% and 55% respectively. These rates imply that each graduation recorded in the administrative data among (for example) Full Cal-Learn teens actually represents 1.32 graduations (1.32 is the inverse of 76%). To generate the estimated graduation rates we multiply each group's graduation rate in the administrative data by the inverse of the recording rate – by 1.32 for Full Cal-Learn, 1.56 for Financial Incentives Only, 1.82 for Case Management Only and 4.0 for No Treatment. The graduation rates estimated through this multiplicative process are shown in the top row of each panel in Table 3.7.

Table 3.6: Officially-Recorded GED Rates and Program Impacts by Research Group

GED Rates

Official GED Data	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
All Ages					
Survey Respondents	12.8	10.5	8.7	7.1	9.8
Sample Size	554	533	520	549	2156
All Ages					
Survey Non-Respondents	8.8	5.8	7.1	6.9	7.1
Sample Size	456	446	448	464	1814
All Ages					
Entire Administrative Sample	11.0	8.4	7.9	7.0	8.5
Sample Size	1010	979	968	1013	3970
Age 20 & Over					
Entire Administrative Sample	11.8	9.2	8.6	7.4	9.2
Sample Size	779	765	740	793	3077
Age 22 & Over					
Entire Administrative Sample	13.3	10.1	9.3	5.9	9.6
Sample Size	176	170	185	191	722

Program Impacts:
Differences Between Treated Groups and No Treatment in GED Rates

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
All Ages					
Survey Respondents	5.7**	3.4*	1.6	---	---
Survey Non-Respondents	1.9	-1.1	-0.2	---	---
Entire Administrative Sample	4.0**	1.4	0.7	---	---
Age 20 & Over					
Entire Administrative Sample	4.4**	1.8	1.2	---	---
Age 22 & Over				---	---
Entire Administrative Sample	7.5**	4.2	3.5	---	---

SOURCE: Proportions with GEDs recorded by the California Department of Education
NOTE: Sample is all teens in the administrative data with more than 6 months exposure.
Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Table 3.7: Graduation Rates in the Administrative Data, Adjusted, and Program Impacts, by Research Group

Adjusted Graduation Rates

Administrative Data and Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
All Ages					
Adjusted Graduation Rate	22.1	19.7	17.9	17.4	19.3
Graduation Rate in Administrative Data	16.9	12.5	9.8	4.3	10.9
Recording Rate	76.0	64.0	55.0	25.0	54.9
Sample Size	978	937	939	949	3803
Age 18 & Over					
Adjusted Graduation Rate	26.8	22.5	21.5	20.2	22.8
Graduation Rate in Administrative Data	19.3	12.6	10.5	4.1	11.6
Recording Rate	72.0	56.0	49.0	20.0	49.2
Sample Size	636	613	622	637	2508

Program Impacts:
Differences Between Treated Groups and No Treatment in Adjusted Graduation Rates

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
All Ages	4.7**	2.3	0.6	---	---
Age 18 & Over	6.7***	2.3	1.3	---	---

SOURCE: County administrative data and Retrospective Survey Wave I & II

NOTE: Sample is teens with at least six months of program exposure in the administrative data and (where available) survey data. Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05. Survey data are used to adjust for the under-recording of graduations in the administrative data.

The impact of Full Cal-Learn estimated by the approach in Table 3.7 is an increase in graduations of 6.7 percentage points among participants aged at least 18, and 4.7 percentage points in the entire sample. Among teens age 18 and over, 27% of Full Cal-Learn teens graduated compared to 20% of No Treatment teens. The impact of Full Cal-Learn is statistically significant, while Financial Incentives Only and Case Management Only treatments have smaller and non-significant effects. These results are very similar to the estimates of impacts in Table 3.4, where Full Cal-Learn graduations are 7.3 percentage points more common than No Treatment graduations among teens aged at least 18.

These analyses of official GED data and of the administrative data confirm that, among the entire evaluation sample, Full Cal-Learn teens graduate at higher rates than No Treatment teens. The impacts estimated for this sample are statistically significant and of the same order of magnitude

as the effects estimated using the survey sample. However, the survey data suggest somewhat larger estimates of program impact than do these analyses of the data for the entire sample.

Impacts On Specific Types of Teens

The previous section reported the significant positive impacts of the Cal-Learn treatments on the educational achievement of all the teens in the evaluation samples. It is useful, however, to know if Cal-Learn is more effective for some teens than others. Are teens who were not enrolled in school at Cal-Learn entry, for example, helped more by the Cal-Learn program than teens who are already in school? Is Cal-Learn less effective for the lowest-achieving students and teens who have experienced serious academic difficulties than it is for teens in general? The analyses in the section that follows suggest that both these questions should be answered in the affirmative.

Table 3.8 explores the first of these two questions by grouping teens based upon their school enrollment status at Cal-Learn entry and estimating the impact of Cal-Learn separately for each group. Among teens out of school at Cal-Learn entry, Full Cal-Learn seems to have a large effect. The Full Cal-Learn group earns about three times as many GEDs as the No Treatment group – a gain of nearly 12 percentage points. Nearly one-fifth (18%) of teens out of school at Cal-Learn entry who were assigned to Full Cal-Learn earned a GED, while only 6.5% of those receiving No Treatment earned a GED. The effect of Full Cal-Learn is much larger than the effect of Financial Incentives Only or Case Management Only, which do not differ significantly from the No Treatment group.

In contrast, among the 67% of teens who were enrolled in school at Cal-Learn entry the impact of Full Cal-Learn is positive, but small and not statistically significant. The overall gain in graduations is 3 percentage points; again, the gain is exclusively in GEDs.

The second subgroup analysis, shown in Table 3.9, distinguishes Cal-Learn's impacts for teens who had been retained in grade from the impacts for those who had not. Nearly one-third (29%) of all teens aged at least 18 had been held back a grade. Among those who were held back, more than half (56%) were held back before the 4th grade, often either in kindergarten or the 1st grade. Teens were not generally held back at the time they gave birth; the average age at first birth for retained teens is 17.6, compared to 17.4 for non-retained teens. Nor did retention result in teens being out of school at Cal-Learn entry; there was no correlation whatsoever between these two events.

Table 3.8: Educational Outcomes and Program Impacts by School Status at Program Entry and by Research Group

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Out of School at Cal-Learn Entry					
Graduation	19.7	14.8	9.0	10.5	13.5
HS Diploma	1.6	4.4	1.8	3.9	3.1
GED	18.0	10.4	7.2	6.5	10.4
Enrolled in School	9.0	6.7	9.0	6.5	7.7
In GED Program	11.5	7.4	8.1	14.4	10.6
Dropped Out	59.8	71.1	73.9	68.6	68.3
Sample Size	122	135	111	153	521
In School at Cal-Learn Entry					
Graduation	38.0	38.5	35.6	35.0	36.8
HS Diploma	28.3	29.6	26.0	28.9	28.3
GED	9.7	8.9	9.6	6.0	8.6
Enrolled in School	22.9	25.9	26.8	22.2	24.4
In GED Program	5.7	5.6	5.4	3.0	4.9
Dropped Out	33.3	30.0	32.2	39.8	33.8
Sample Size	279	270	261	266	1076

Program Impacts: Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Out of School at Cal-Learn Entry					
Graduation	9.2*	4.3	-1.5	---	---
HS Diploma	-2.3	0.5	-2.1	---	---
GED	11.5**	3.9	0.7	---	---
Dropped Out	-8.8	2.5	5.3	---	---
In School at Cal-Learn Entry					
Graduation	3.0	3.5	0.6	---	---
HS Diploma	-0.6	0.7	-2.9	---	---
GED	3.7	2.9	3.6	---	---
Dropped Out	-6.5	-9.8	-7.6	---	---

SOURCE: Retrospective Survey Wave I & II

NOTE: Sample is teens age 18 or older at most recent interview (or at interview following graduation, if applicable). Teens whose school enrollment at Cal-Learn entry could not be ascertained are excluded.

Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Table 3.9: Educational Outcomes and Program Impacts by Whether Held Back a Grade and by Research Group

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Held Back a Grade in School					
Graduation	18.4	21.6	27.3	19.7	21.6
HS Diploma	9.9	14.2	16.5	13.4	13.4
GED	8.5	7.5	10.7	6.3	8.2
In School or GED Program	31.9	29.1	29.8	26.0	29.2
Dropped Out	49.6	49.3	43.0	54.3	49.1
Sample Size	134	141	121	127	523
Not Held Back a Grade in School					
Graduation	37.5	32.4	26.8	25.9	30.6
HS Diploma	22.2	21.5	18.1	19.9	20.4
GED	15.2	10.9	8.7	6.0	10.2
In School or GED Program	23.5	24.7	25.1	22.6	23.9
Dropped Out	39.0	42.9	48.0	51.5	45.4
Sample Size	315	312	298	332	1257

Program Impacts: Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Held Back a Grade in School					
Graduation	-1.3	1.9	7.6	---	---
HS Diploma	-3.5	0.8	3.1	---	---
GED	2.2	1.2	4.4	---	---
Dropped Out	-4.7	-5.0	-11.3	---	---
Not Held Back a Grade in School					
Graduation	11.6**	6.5	0.9	---	---
HS Diploma	2.3	1.6	-1.8	---	---
GED	9.2***	4.9*	2.7	---	---
Dropped Out	-12.5**	-8.6*	-3.5	---	---

SOURCE: Retrospective Survey Wave I & II

NOTE: Sample is teens age 18 or older at most recent interview (or at interview following graduation, if applicable).
Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Table 3.9 makes clear that teens who had been held back did not respond to Cal-Learn in the same way that non-retained teens did. The results are quite striking. Among teens who had been held back, neither Full Cal-Learn nor the single-treatment groups provide any statistically significant benefit in terms of graduations or school continuation. In general, this group had low graduation rates anyway: among teens age 18 and older only 22% graduated.

In contrast, among teens with no history of grade retention, Full Cal-Learn is associated with a 12 percentage point gain in graduations and a reduction in dropping out. Most of the gain in graduations is due to GEDs. Teens in the Financial Incentives Only group also show a statistically significant reduction in dropping out, but the improvement is much less than the improvement shown for Full Cal-Learn teens.

The two subgroup analyses suggest that Cal-Learn as currently implemented benefits some types of teens more than others. Teens who were out of school at Cal-Learn entry may not have had the services or supports they needed to attend regular high school or they might have been unwilling to keep a regular school schedule. Cal-Learn seems to motivate and empower this latter group to complete the appropriate course work for the GED and actually pass the examination; in contrast, it is less beneficial to students enrolled in school at Cal-Learn entry. Teens with a history of grade retention are also not benefited, perhaps because they suffer disproportionately from unaddressed learning disabilities or overwhelmingly difficult home circumstances.

Putting these two characteristics together, we find that the teens who benefited from Full Cal-Learn the most were the 23% who were not attending school when they enrolled in the program and who had never been held back in school. Their graduations increased 14 percentage points, and their dropout rate declined 9 percentage points. The 47% of teens attending school at enrollment with no history of grade retention also benefited. Full Cal-Learn generated a gain for them of 7 percentage points in graduations compared to No Treatment. The teens who did not benefit from the program in terms of school progress were the 20% who were attending school when they enrolled in Cal-Learn and who also had a history of being held back. These teens were positive about the program: they were slightly more likely than in-school teens with no grade retention to say that their case manager helped them “A Lot” or “Some” and that incentives were “Very” or “Somewhat” important in motivating them to stay in school and graduate. However, the program made no difference in the educational outcomes measured in this study.

Overview of Program Impacts

The analyses in this chapter offer a range of estimates of the effect of Cal-Learn. The measured impact depends on whether survey data, official GED data, or a combination of survey data and administrative data are used. Administrative and GED data have the advantage that they represent every single teen eligible for Cal-Learn, including teens who are non-compliant in every respect with the demands of the program and the demands of the research. The GED data are particularly useful because Cal-Learn’s effects seem to occur entirely through increases in GEDs. However, these administrative data do not have the flexibility of the survey to explore

how program effects become more pronounced as teens grow older, or to distinguish how effects may depend on a teen's prior schooling experiences (whether she is a dropout or not, or whether she has been held back in school). The survey data are available for 58% of the Cal-Learn teens; the drawbacks of these data are that the non-surveyed teens differ somewhat from the surveyed teens, and that a small proportion of teens may have reported fictitious graduations in the survey.

Table 3.10 summarizes the program impacts from these analyses. The administrative data and the GED data yield lower estimates of the program impact than the Retrospective Survey, which is to be expected if the Retrospective Survey is biased by slight over-reporting of results or if the surveyed teens benefit more from Cal-Learn than non-surveyed teens.

Overall, it appears that Cal-Learn is associated with a gain of between five and seven percentage points in graduations among teens aged 18 and over, a gain achieved entirely through GEDs. This result, which is for a cross-section of teens age 18 and over, understates the cumulative impact of the program on teens by the time they turn twenty. The cross-sectional samples include many 18- and 19-year-old teens who have not yet graduated but will do so. Using the survey to simulate a longer-term picture and adjusting results downward 10% for possible over-reporting of graduations, it appears that by age 20 about 42% of surveyed Full Cal-Learn teens will graduate compared to 30% of No Treatment teens.

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Table 3.10: Summary of Program Impacts by Data Source

Retrospective Survey

(from Tables 3.4, 3.5, and 3.8)

	Educational Outcome		
Self-Report	Graduation	HSD	GED
All Ages	6.1*	0.0	6.1**
Age 18 & Over	7.3*	0.3	7.0***
Estimated:			
By Age 20	13.5***	1.8	11.7***
Age 18 & Over:			
In School at Cal-Learn Entry	3.0	-0.6	1.1
Out of School at Cal-Learn Entry	9.2*	-2.3	11.5**
Held Back a Grade	-1.3	-3.5	2.2
Not Held Back a Grade	11.6**	2.3	9.2***

Comments: Graduations may be overstated by up to 10%; respondents may differ from non-respondents.

Official GED Statistics

(from Table 3.6)

	Educational Outcome		
GED Data	Graduation	HSD	GED
All Ages	---	---	4.0**
Age 20 & Over	---	---	4.4**
Age 22 & Over	---	---	7.5**

Comments: For all teens in the estimation sample. Only a few analyses are possible because the data are aggregated.

Administrative Data Adjusted Using Retrospective Surveys

(from Table 3.7)

	Educational Outcome		
Administrative Data and Self-Report	Graduation	HSD	GED
All Ages	4.7**	---	---
Age 18 & Over	6.6***	---	---

Comments: For all teens in the estimation sample. Assumes the percent of graduations recorded in the administrative data is the same among respondents as non-respondents.

Chapter Summary: Impacts on School Enrollment and Graduation

- The Full Cal-Learn teens have significantly more graduations than the No Treatment teens, because they earn more GEDs. The two groups earn high school diplomas at identical rates. The Full Cal-Learn treatment helps teens who would otherwise have dropped out, or who have already dropped out, earn GEDs. Many teens graduate while they are 19, and the difference between Full Cal-Learn and No Treatment widens substantially during that year.

- Estimates of the program effect vary between a low of a 4 percentage point gain in GEDs among teens of all ages, and a high of a 13.5 percentage point gain in graduations by age 20 among survey respondents. Whatever the actual magnitude of the gains, these estimated impacts represent large proportionate increases in the number of graduating teen parents.

- Although they graduate at a significantly higher rate than No Treatment teens, about half of Full Cal-Learn teens still fail to graduate by age 20.

- The effects of Financial Incentives Only and Case Management Only are generally positive, but smaller than the effects of Full Cal-Learn and often non-significant. In most models, the Full Cal-Learn effect is approximately equal to the sum of the Financial Incentives Only and Case Management Only effects. The estimated effects of Financial Incentives Only are generally larger than the estimated effects of Case Management Only.

- The increase in graduations associated with Full Cal-Learn is larger among teens who were not in school at Cal-Learn entry than among teens who were in school. Among the Full Cal-Learn teens not in school at Cal-Learn entry, 18% earned GEDs and 2% earned HSDs, while comparable teens in the No Treatment group had a GED rate of 7% and an HSD rate of 4%. Among teens attending school at Cal-Learn entry, Full Cal-Learn is associated with more GEDs, but the difference is smaller than for those out of school, and not statistically significant.

- Full Cal-Learn led to higher graduation rates among teens who had not been held back in school, but had no impacts on teens who had been held back a grade. Among the Full Cal-Learn teens not held back a grade, 15% earned GEDs and 22% earned HSDs, while comparable teens in the No Treatment group had a GED rate of 6% and an HSD rate of 20%. In contrast, teens who had been held back a grade in school did not benefit from Full Cal-Learn, particularly if they were enrolled in school at Cal-Learn entry.

- A substantial number of graduated Full Cal-Learn teens failed to report their graduations to their case workers, and as a result did not receive their graduation bonuses.

IV. TEENS' REPORTED EXPERIENCES OF THE CAL-LEARN TREATMENTS – IMPACTS ON GRADUATION

Introduction

The preceding chapter presented estimates of how much Cal-Learn increases graduations and GEDs among teenage parents on welfare. In that chapter, the estimates of Cal-Learn's impact were calculated using the "Intent to Treat" principle of evaluation: that is, groups were compared based on the treatment they were *intended* to receive by virtue of their random assignment, not based on the treatment they actually received. It compares outcomes, for example, among teens assigned to case management and teens not assigned to case management, without regard to whether either group saw a case manager. This strategy is standard practice in program evaluation because the estimates of program effect that it generates are not influenced by participants' choices and characteristics.

This chapter moves beyond the "Intent to Treat" principle of evaluation and probes the relationships between teens' actual receipt of Cal-Learn case management, and their perceptions of the Cal-Learn incentives, and graduation outcomes. The survey data suggest that teens' beliefs and experiences about their participation in the Cal-Learn evaluation often did not correspond to the research groups to which they were randomly assigned. Some teens seemed unaware of incentives for which they were eligible, while others expected incentives they would never receive. By the same token, some respondents received case management services although they were not assigned to case management, while others assigned to case management never received services.

For most evaluation purposes, the fact that a teen's beliefs and experiences do not correspond to her assigned treatment is not a problem, but simply reflects what would naturally occur if that particular treatment were implemented statewide. For example, not everyone in the statewide Cal-Learn program sees a case manager and not everyone is aware of bonuses and sanctions, even though the statewide program includes both of those treatments. As long as the teens in the Full Cal-Learn group believe they are eligible for incentives and have contact with a case manager to the same extent that teens in the statewide Cal-Learn program do, then the evaluation offers an accurate simulation of the Full Cal-Learn program as fully implemented.

However, a substantial fraction of the participants in the study reported beliefs and experiences that differ from what they would encounter if their randomly assigned treatment were implemented statewide. For example, the No Treatment group is intended to represent the experiences of teen parents in a world without any Cal-Learn program. Teens in this group should not expect incentives at all, and they should see case managers only to the extent that teen parents on welfare did before Cal-Learn greatly expanded the supply of case management services.[10] If the expansion of case management services as Cal-Learn was implemented statewide made it more likely that No Treatment teens received case management, this contamination of the experimental evaluation could lead to an underestimate of program effects. Similarly, if No Treatment teens believed that they could get bonuses or sanctions, perhaps because of conversations with teens who truly were eligible for these incentives, they might have

behaved as if they were receiving the Full Cal-Learn treatment, in which case unadjusted comparisons between the No Treatment group and the other research groups would underestimate the program impacts of Cal-Learn.

This chapter provides an assessment of program impact that takes into account the discrepancies between randomly assigned treatment and treatments as teens experienced them. Program impacts are calculated in this chapter using data for teens whose beliefs about incentives and experiences of Cal-Learn case management matched the treatment to which they were randomly assigned.

Survey Reports of Eligibility for Incentives and Contact with Case Managers

The survey responses indicate how well each teen's randomly assigned treatment matches her beliefs about and experiences with Cal-Learn. Teens were asked if they had ever met with a Cal-Learn case manager. They were also asked whether they could receive a bonus for graduating or for making satisfactory progress in school, and whether they could be sanctioned for a failing, late, or missing report card. Chapters VI and VII explain in more detail teens' experiences with Cal-Learn case management and financial incentives.

Table 4.1 summarizes information about the degree of congruence between teens' random assignment and their reports in the Wave I interview about the program conditions they were subject to. Seventy-eight percent of Full Cal-Learn teens gave responses consistent with their assignment: they reported talking to a Cal-Learn case manager and also believed they were eligible for at least one of the financial incentives. Only 8% of the group said neither of these conditions was true for them. No other group has such a high degree of consistency between their randomly assigned treatment and their reported experiences. In the Financial Incentives Only group, 69% reported appropriately that they were eligible for incentives, but only 30% gave survey responses completely congruent with their random assignment by saying they also had not seen a case manager. In the Case Management Only group, 75% reported that they had seen a case manager, but only 38% say in addition that they were not eligible for incentives. In the No Treatment group, 59% reported appropriately "no treatments", that they are not eligible for incentives and had not seen a case manager, or that they are not in Cal-Learn at all.

Not all survey reports are necessarily truthful, however. Two common sources of survey bias may have influenced some of the teens to answer falsely "yes" to survey questions about their participation in the Cal-Learn treatments – that is, to say "yes" when the true response should have been "no". The two biases that can generate false "yes" response are yea-saying (a respondent answering "yes" to a question when she is not sure of the correct answer) and social desirability (giving an answer that reflects socially preferred behavior). So, for example, people who had not, in fact, met with a Cal-Learn case manager might answer "yes" when asked because they thought a meeting was an important part of the program. Or they may have said they were eligible for bonuses or sanctions – even if they had not thought they were – because to say otherwise could have revealed their ignorance of program rules. Welfare policies changed several times during the evaluation period, so confusion about rules – and an inclination to yea-

saying – could have been quite widespread. Yea-saying and social desirability bias are particularly common among low-income and ethnic minority survey respondents.[11]

Table 4.1: Percent of Teens Reporting Eligibility for Incentives and Contact with a Case Manager by Research Group

Self-Report	Research Group				All
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
Any Case Manager Contact	84.2	45.0	74.7	27.5	57.5
Any Eligibility for an Incentive	84.9	69.1	40.6	29.4	56.2
Both Eligibility and Contact	77.5	38.9	36.5	15.5	42.2
Neither Eligibility nor Contact	8.3	24.8	21.2	58.6	28.5
Sample Size	457	447	419	459	1782

SOURCE: Retrospective Survey Wave I
NOTE: Sample is teens age 18 or older at most recent interview (or at interview following graduation, if applicable).
"Case manager contact" represents a "yes" response to any of the questions about meeting with or talking on the telephone to a Cal-Learn case manager (see Chapter VII for wording). "Believes is eligible for an incentive" represents a "yes" response to any of the questions about eligibility for a specific bonus or sanction (see Chapter VI for wording).

The circumstances under which the evaluation was conducted, however, make it likely that these biases played only a modest role. Many of the teens who reported that they had a case manager were probably correct. Although teens in the No Treatment and Financial Incentives Only groups were not explicitly referred to case management agencies, they were not prevented from receiving case management. The case management agencies had caseloads that included teens on Cal-Learn and teens not in Cal-Learn. Case management agencies could not use Cal-Learn funds for No Treatment and Financial Incentives Only teens, but they had other sources of funds with which to serve these teens.

In the survey, about 36% of teens in the No Treatment and Financial Incentives Only groups reported meeting with or talking to a case manager. The case management administrative data (the Lodestar Data), provided a lower figure: about 12% of the teens in groups not assigned to case management received case management. The Lodestar Data file underestimated the true proportion because it captured only teens who were identified by their case managers as participants in the Cal-Learn evaluation. Many teens in the evaluation, and particularly those in the No Treatment condition, did not know they were in the Cal-Learn evaluation at all. Even if they knew, they might not have told their case manager that they were. These teens would not be flagged in the Lodestar data as Cal-Learn evaluation participants and would be omitted from the count in the Lodestar Data of teens who received case management.

In addition, the evaluation was conducted at the same time that the full Cal-Learn program was implemented statewide. Teens' impressions about their own treatment circumstances, particularly a belief they were eligible for bonuses and sanctions, could have been shaped by conversations with teens not in the evaluation or in a treatment condition different from their own. No teen actually received a bonus or sanction unless she was in an appropriate group, but

she could have expected one. The expectation of a bonus or sanction may be the most important aspect of the treatment, serving as a motivator long before the incentive is applied.

Program Impacts when Reported Treatment Matches Assigned Treatment

The dissemination of the full Cal-Learn program to the No Treatment, Financial Incentives Only and Case Management Only groups could lead to underestimates of the program's impact. We exploit the two waves of the survey to gain some insight into the effects of this contamination, using Wave I survey reports to determine a teen's perceived treatment condition and using Wave II to assess her (subsequent) educational outcome. Requiring that treatment perceptions be measured before outcomes are measured rules out the possibility of reverse causation: that, for example, individuals learn that they are eligible or not eligible for bonuses because they have graduated, rather than graduating because they know they can get a bonus.

The No Treatment group demonstrates substantial contamination (see Table 4.1). About 41% of the No Treatment group reported at Wave I either that they were eligible for incentives or that they had talked with a case manager, and 16% reported that both treatments applied to them. If the teens in the No Treatment group actually believed they were eligible for incentives and actually received case management services, then presumably their outcomes would resemble outcomes for the Full Cal-Learn group. And indeed, the graduation rates of No Treatment teens were much higher if they said they had experienced a Cal-Learn treatment than if they reported that they had not. Among the 190 No Treatment teens aged 18 or over who at Wave I reported either eligibility for incentives or case manager contact, 32% earned a high school diploma or GED – about the same fraction as the Full Cal-Learn group. In contrast, only 19% of the 269 No Treatment teens who reported at Wave I that they neither expected incentives nor had talked to a case manager graduated or earned a GED.

It is impossible to disentangle completely the causality in this finding. The No Treatment teens who said they experienced a Cal-Learn treatment are somewhat different from those who did not. In particular, they were more likely to have started the program while enrolled in school, and so were more likely to graduate in general. At Cal-Learn enrollment, 66% of the No Treatment teens who later reported seeing a case manager or being eligible for incentives were attending school. In contrast, only 52% of the "true" No Treatment group was attending school. These differences, however, do not completely explain the much higher graduation rate in the "treated" No Treatment teens. In the absence of Cal-Learn, no teen parents would expect incentives to attend school. And in the absence of Cal-Learn, case management services would be less readily available, less well-advertised, and less used by teenage parents. In short, a No Treatment group that includes many teens who received Cal-Learn treatments almost certainly will have better outcomes than a No Treatment group would in a world with no Cal-Learn program at all. In that situation, measured differences between Full Cal-Learn and No Treatment groups underestimate the true impact of Cal-Learn.

To estimate treatment effects undiluted by teens' misunderstandings about their treatment, we measure outcomes for all four groups restricted to individuals who exhibit "treatment congruence" – that is, teens whose experiences match their assignment. Treatment congruence is

defined as follows: for teens in the Full Cal-Learn group, if they reported seeing a case manager and said that they were subject to at least one of the financial incentives; for teens in the Financial Incentives Only group, if they said that they were subject to a financial incentive and reported that they have not seen a case manager; for teens in the Case Management Only group, if they said that they have seen a case manager and were not subject to any of the financial incentives; and for teens in the No Treatment group, if they either said they were not in Cal-Learn or that they were not subject to financial incentives and had not seen a Cal-Learn case manager.

The sample for this comparison consists of teens who responded to both interviews, who were younger than 20 years old at the first interview but at least 18 by the second interview, and who had not graduated by the first interview.[12] We investigate the relationship between their experiences of the program as reported at Wave I and their graduation status at Wave II. The drawback to using this particular group of teens is that they are not a random sample of all teens and might not be representative of all Cal-Learn teens. However, it is the only way to estimate the effect that respondents' beliefs and experiences about Cal-Learn treatments have on their subsequent graduation probabilities.

Table 4.2 shows graduations and other outcomes for these teens by their randomly assigned treatments. The impact of Full Cal-Learn on graduations, GEDs, and dropping out are statistically significant, and approximately the same size as the impacts estimated for the entire sample reported in Chapter III. The other two treatment conditions do not generate significantly higher graduation rates than the No Treatment condition.

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Table 4.2: Educational Outcomes and Program Impacts by Research Group: Unrestricted Sample to Test Impact of Treatment Congruence

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Graduation	26.4	22.4	21.8	19.3	22.5
HS Diploma	15.7	15.4	14.1	15.3	15.2
GED	10.7	7.0	7.6	4.0	7.3
In School or GED Program	26.5	26.9	25.5	25.3	26.0
Dropped Out	47.2	50.7	52.7	55.5	51.5
Sample Size	299	272	262	301	1134

Program Impacts: Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Graduation	7.1*	3.1	2.5	---	---
HS Diploma	0.4	0.1	-1.2	---	---
GED	6.7**	3.0	3.6	---	---
In School or GED Program	1.2	1.6	0.2	---	---
Dropped Out	-8.3*	-4.8	-2.8	---	---

SOURCE: Retrospective Survey Wave II

NOTE: Sample consists of teens who responded to both interviews, were younger than 20 and had not graduated by the first interview, and at least 18 years old at the second interview

Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Table 4.3 compares the four treatment groups for the subset of teens in each group whose experiences match ("are congruent with") their research group assignment. Among Full Cal-Learn teens, 241 out of 299 were congruent in this way. Among Financial Incentives Only teens, 87 out of 272 matched their random assignment, and out of Case Management Only teens, 98 out of 262 did. Among No Treatment teens, 168 out of 301 had reports congruent with their assignment (i.e., they reported no case management contact and no eligibility for incentives).

The program impacts for these groups, shown in Table 4.3, can be thought of as upper bounds for what might be possible were Cal-Learn to be implemented exactly as intended. For example, for the Full Cal-Learn – No Treatment contrast to be an estimate for the actual impact of the program, two conditions would have to be true. First, the Full Cal-Learn teens would be 100% compliant with the program: i.e., every single teen in this group would meet with a case manager and would also understand the financial incentives she faces. Second, the teens in the Full Cal-Learn and No Treatment groups who would correctly understand their treatment conditions instead of, as now, not understanding them, would behave like the teens who already are congruent. This latter assumption is implausible, since the congruent teens are different from the

non-congruent teens. We have already noted that No Treatment teens who genuinely received "no treatment" were different from No Treatment teens who reported experiencing one of the treatments. Teens in the Full Cal-Learn group who match their random assignment also are different from Full Cal-Learn teens who do not. Even if these non-congruent teens did experience the treatment that matched their assignment, their graduation outcomes would probably be different from the outcomes of the congruent teens. For these reasons, the effects in Table 4.3 should be seen as upper bound estimates.

Table 4.3: Educational Outcomes and Program Impacts by Research Group: Restricted to Sample with Treatment Congruence

Percent in Each Educational Status

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
	Restricted to teens with survey reports congruent with their research group				
Graduation	25.7	19.5	28.6	13.1	21.9
HS Diploma	15.4	13.8	16.3	9.5	13.6
GED	10.4	5.7	12.2	3.6	8.1
In School or GED Program	29.1	31.0	17.3	24.4	26.1
Dropped Out	45.2	49.4	54.1	62.5	52.2
Sample Size	241	87	98	168	594

Program Impacts: Differences Between Treated Groups and No Treatment in Educational Outcomes

	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
	Restricted to teens with survey reports congruent with their research group				
Graduation	12.6**	6.4	15.5**	---	---
HS Diploma	5.9	4.3	6.8	---	---
GED	6.8**	2.1	8.6**	---	---
In School or GED Program	4.7	6.6	-7.1	---	---
Dropped Out	-17.3***	-13.1*	-8.4	---	---

SOURCE: Retrospective Survey Wave I (for reported treatments) and Wave II (for outcomes)
NOTE: Sample is teens under age 20 and not graduated at Wave I, who were age 18 or older at Wave II.
Congruence with survey data defined as:
Full Cal-Learn: at Wave I, reported eligibility for an incentive and contact with a Cal-Learn case manager.
Financial Incentives Only: at Wave I, reported eligibility for an incentive and no Cal-Learn case manager contact.
Case Manager Only: at Wave I, reported contact with a Cal-Learn case manager and no eligibility for an incentive.
No Treatment: at Wave I, reported no contact with a Cal-Learn case manager and no eligibility for an incentive.
"Case manager contact" represents a "yes" response to any of the questions about meeting with or talking on the telephone to a Cal-Learn case manager (see Chapter VII for the wording of these questions). "Eligibility for an incentive" represents a "yes" response to any of the questions about eligibility for a specific bonus or sanction (see Chapter VI for the wording of these questions).
Independent samples t-tests: statistical significance levels are indicated as *** <.001, ** <.01, * <.05.

Restricting the research groups to those who report actually experiencing the treatment changes graduation rates among the Full Cal-Learn group very little. This is not surprising, because most

of the teens randomized to Full Cal-Learn report treatment congruence. 81% of the Full Cal-Learn teens (in this sample) said they had seen a case manager and thought themselves eligible for at least one incentive.

Graduation rates in the Financial Incentives Only group are reduced somewhat when the group is restricted to the much smaller number who report treatment congruence, while graduations increase for the Case Management Only group when it is restricted. The Financial Incentives Only group loses people who saw a case manager while the Case Management Only group loses people who did *not* see a case manager, suggesting that seeing a case manager is associated with graduation. Finally, graduations in the No Treatment group decline sharply, from 19% to 13%, when this group is confined to those who said they neither saw a case manager nor expected incentives.

The impacts of the Cal-Learn treatments are substantially larger when the research groups are restricted to teens reporting treatment congruence than when the groups also include teens reporting the "wrong" treatments for their assignment. In particular, program effects for teens who were assigned to case management and reported actually meeting with or talking with a Cal-Learn case manager are much larger than in the simple planned comparison analysis of the full randomized sample. Table 4.3 suggests that graduations are 16 percentage points higher among Case Management Only teens who report contact with a case manager than among No Treatment teens who report no treatments. Graduations are 13 percentage points higher for the Full Cal-Learn congruent teens than for the No Treatment congruent teens. The gains associated with expecting financial incentives are smaller than the gains associated with receiving Cal-Learn case management, and are not statistically significant.

The results in Table 4.3 highlight the difference between offering a service and having teens actually use that service. Data on teens who were offered but did not use a service do not provide estimates of effectiveness of the service itself. One-quarter (25%) of Case Management Only and one-sixth (16%) of the Full Cal-Learn teens reported in the Wave I survey no case manager contact, while the Lodestar Data suggest about 13% of both groups had no personal contact. (The Lodestar Data refer to a period quite late in the evaluation, when Cal-Learn case management was more institutionalized). The experiences of teens who never saw a case manager were included in estimates of the effectiveness of the "offer of case management" presented in Chapter III. Those results suggest quite small benefits of the *offer* of Cal-Learn case management alone. However, because of the number of teens who never received services, the Chapter III results understate the benefits of *actual* Cal-Learn case management services.

The impacts for groups restricted to those who report receiving the treatment are, however, likely to be overestimates of the gain in graduations attributable to actually *receiving* case management and actually *expecting* incentives. The subsample in Table 4.3 is a select part of the full evaluation sample. The more motivated and competent respondents may have acted on the offer of case management by seeking out services, and have learned about eligibility for bonuses by receiving a progress bonus. There may also be response bias in the survey reports. Despite these caveats, the results in Table 4.3 provide the best estimates available of the effects of receiving each treatment, as opposed to the effect of the offer of each treatment. The true levels of

treatment effectiveness probably lie between the estimates in the preceding chapter and those shown here.

The data in Tables 4.1 and 4.3 taken together suggest one reason why the Full Cal-Learn treatment is so much more effective than either of the single treatments. One of the strengths of the Full Cal-Learn treatment is that by combining treatments, the probability of reporting receipt of either one of them is increased (see Table 4.1). Full Cal-Learn teens say they see case managers more than Case Management Only teens do. They are also more aware of financial incentives than the Financial Incentives Only teens are. The substantial benefits of the Full Cal-Learn program apparent in the randomized treatment groups are probably due in large measure to participants' high awareness of both treatments and their increased responsiveness to the treatments as a result.

Chapter Summary: Teens' Reported Experiences of the Cal-Learn Treatments – Impacts on Graduation

- The Full Cal-Learn program appears to convince most participants that they are subject to bonuses and sanctions, and to induce most of them to work with a case manager. Among teens old enough to have graduated, 85% of Full Cal-Learn respondents said in the Wave I interview that they were subject to at least one of the financial incentives, and 84% reported having seen or talked on the telephone to a Cal-Learn case manager.

- A large fraction (41%) of the No Treatment group reported contact with a case manager or eligibility for incentives. These reports suggest that at least some of the No Treatment teens received either assistance or incentives that they would not have received if there were no Cal-Learn program or evaluation. This, in turn, implies that measured differences between the randomized No Treatment control group and the randomized treatment groups understate the true program effects, because the No Treatment group received some treatments (more than they would have without Cal-Learn).

- The estimates of program impact estimated based on the randomized groups assessed the impact of the *offer* of case management, not the impact of case management services themselves. About 25% of the Case Management Only group and 16% of the Full Cal-Learn group did not report at Wave I any contact with a Cal-Learn case manager.

- Participants in the Case Management Only and Full Cal-Learn groups who at the Wave I interview reported seeing a Cal-Learn case manager had substantially higher graduation rates (16 and 13 percentage points higher, respectively) by Wave II than the No Treatment controls who had received no treatments. The difference between the congruent Financial Incentives Only group and the congruent No Treatment group was positive, but non-significant.

V. IMPACTS ON EMPLOYMENT AND WELFARE RECEIPT

Introduction

This chapter examines the employment and welfare receipt outcomes for Cal-Learn participants in our research sample. While the direct goals of the Cal-Learn program are to help teens stay in school and graduate, economic self-sufficiency is intended as a long-term outcome of the program. This chapter includes analysis of teens' progress towards these long-term goals over the period covered by the Cal-Learn evaluation.

The next section discusses important issues to consider when analyzing employment and welfare receipt impacts that result from Cal-Learn program participation. Following this, we examine employment outcomes from both administrative and survey data. Then, welfare receipt is examined, followed by an analysis of teen's employment and aid receipt in combination.

The immediate goal of the Cal-Learn program is to increase graduations. Its impacts on employment and welfare receipt are intended to occur after teens leave the program as a result of their higher graduation rates. Since most of the Cal-Learn exits we observe do not occur until late in the evaluation period, we observe participants' employment and welfare experiences for only a short period of time after they exit Cal-Learn. We do not expect to find large program effects on employment and welfare receipt during this limited period. Moreover, self-sufficiency is not a short-term phenomenon, so brief periods of employment or breaks in welfare receipt are not necessarily indicative of long-term self-sufficiency.

Methodological Issues

Since we are examining the long-term impacts from Cal-Learn program participation, it is natural to think that we should examine the period since participants left the program. Identifying the appropriate post Cal-Learn time measure is not a straightforward task. As we discuss in Chapter III, graduations are under-recorded in the administrative data, and under-recorded at different rates for different research groups. The between-group differences in graduation recording rates lead to problems in determining exactly when teens leave Cal-Learn. In theory, teens exit Cal-Learn when they graduate from high school. However, teens who fail to record their graduations with the county welfare office will appear to continue in Cal-Learn, usually until they age out of the program at age 19. No Treatment teens are particularly likely to fail to record their graduations, so they often do not officially exit Cal-Learn at that time. Consequently, indicators of self-sufficiency that are measured starting from the date when teens officially exit Cal-Learn cannot be compared across groups because the recorded exit dates are biased by the differential under-recording of graduations.

Consider two teens who both graduated at age 18, one of whom was in Full Cal-Learn and the other in the No Treatment group. The Full Cal-Learn teen's graduation would likely have been recorded in the administrative data and the teen would have exited from Cal-Learn upon graduation at age 18. The No Treatment teen's graduation would probably not have been

recorded, in which case the teen would have exited the program at age 19, and would appear to have aged out rather than graduated. Consequently, if we calculated employment and welfare outcomes starting at Cal-Learn exit, we would start observing post-graduation effects at different times for these two teens even though they had identical graduation dates.

Suppose then that both teens started working at age nineteen and a half and left welfare at that time. Any measure of how the teens have spent their time after exiting Cal-Learn would be biased by the failure to record the No Treatment teen as exiting Cal-Learn when she graduated at age eighteen. For example, a measure like "number of months (or proportion of months) on welfare since leaving Cal-Learn" would be higher for the Full Cal-Learn teen than for the No Treatment teen, and "proportion of months working" would be lower. Yet these two teens behaved in exactly the same way. This example demonstrates why using Cal-Learn exit dates to study employment and welfare outcomes would yield different results for identical teens, and so would be misleading.

Instead of restricting our analyses to teens who have already left Cal-Learn, we instead compare outcomes among teens who are the same age, regardless of whether they are still in Cal-Learn. Teens are required to participate in Cal-Learn until age 19 or until they graduate. Only 13% of our sample exit Cal-Learn by age 18. However, approximately a year later (the month after they turn 19) 95% of teens have exited. The 5% who elect to continue in the program when they are 19 must all exit by age 20, and the large majority of them exit before age 19 and a half. Accordingly, we mainly study employment outcomes among teens age 19 and over.

The data for the Cal-Learn evaluation include employment data through the third quarter of 1998 and public assistance data through the end of 1998. More than half of the teens are still under 20 by the end of 1998, the end of our evaluation period. We can observe the average 19 year old for approximately one year after she turns 19. We do not expect many teens to progress far towards self-sufficiency during this relatively brief period.

Moreover, the estimated gains in education associated with Full Cal-Learn (see Chapter III) provide good reason to expect at best small program impacts of the Full Cal-Learn treatment for employment and welfare receipt. The Full Cal-Learn group graduate at a higher rate than the No Treatment group; between 4% and 14% of teens graduate who would otherwise have dropped out. The median of these, 9%, is a plausible estimate of the impact of Full Cal-Learn and would imply 9 more graduations per 100 people in the Full Cal-Learn group .

How might these educational gains translate into impacts on employment? We show later in this chapter that graduating increases the probability of work by about 20 percentage points. This would mean that of the 9 more graduations we get from Full Cal-Learn, we would only expect to see 1.8 more employed persons. An increase of 1.8 more employed persons per 100 in the Full Cal-Learn group is a small program impact, and it would not be a statistically significant difference with the sample sizes we have in either the administrative or survey evaluation samples.

Differences in the welfare participation of Full Cal-Learn and No Treatment groups will be even smaller than the employment impacts, given that graduates receive welfare at almost the same

rate as non-graduates. Thus, the results in this chapter are not likely to provide strong support for the long-term goals of the Cal-Learn program because of limited sample sizes and insufficient time to observe employment benefits and welfare outcomes. Nevertheless, the substantial differences in employment and earnings that we observe between graduates and non-graduates, whether the graduates earned a GED or an HSD, do provide support for the logic of the Cal-Learn model and warrant some optimism about longer-term impacts.

Employment Outcomes

Our measures of employment rely on administrative data from the Employment Development Department. These data are available from the point at which a teen turns 16 until the third quarter of 1998, and include all jobs that are covered under the UI/DI program. Some types of formal employment and any casual work for which taxes are not collected are omitted from the EDD data. We measure the percent of teens ever employed in a UI/DI covered job during the time period we are examining, the percent of time they were employed, and their reported quarterly earnings while employed.

The analysis also includes measures calculated from both waves of the Retrospective Survey. The survey measure of employment is not restricted to covered employment and may include employment not usually reported to EDD, such as odd jobs. The survey data provide more detailed information than the EDD files about the types of employment Cal-Learn teens engage in, such as the hours they work and their hourly wage. The survey data also contain better measures of educational attainment and its effect on employment outcomes.

Analysis is done by age groupings. In the administrative sample we can identify 3410 Cal-Learn teens who turn age 18 by the end of the evaluation period, 2561 teens who turn age 19, and 1278 teens who turn age 20. In the survey sample, we find 537 teens who were age 18, 706 teens who were age 19, and 558 teens who were age 20 at their most recent interview.

Employment in the Administrative Data

Table 5.1 shows that slightly more than half (53%) of the teens report ever being employed since turning age 19. For comparison, we use 1990 Census data to look at unwed Californian mothers aged 18-21 and find that approximately fifty percent report being employed. This is slightly higher than the figure for similarly aged Cal-Learn mothers, perhaps because Census mothers are slightly more educated. Around half of young mothers in the Census data report having at least a high school diploma.[13]

On average, teens work during a third of the time since turning age 19 and earn $1383 per employed quarter. For all three measures of employment the four research groups are virtually indistinguishable.

Table 5.1: Employment Indicators for Teens After Turning 19 by Research Group

Administrative Data	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Post Age 19 Employment					
Percent Ever Employed	55.2	54.3	51.2	53.0	53.4
Percent of Time Employed	33.3	33.0	32.1	32.5	32.7
Quarterly Earnings	$1334.06	$1369.46	$1406.57	$1423.49	$1383.17
Sample Size	636	626	623	676	2561

SOURCE: EDD Base Wage Data
NOTE: Quarterly earnings are averaged only for those quarters and women with positive earnings.

In Table 5.2 we examine employment measured when a teen was a particular age. We find that as a teen gets older, she is employed more of the time and earns more. There are no differences in employment between research groups when age is held constant.

Table 5.2: Employment of Teens During Selected Ages

Administrative Data	Employment During Year Teen is: Age 18	Age 19	Age 20
Percent Ever Employed	35.2	46.5	45.9
Percent of Time Employed	20.5	31.5	34.6
Quarterly Earnings	$952.56	$1335.44	$1628.92
Sample Size	3410	2561	1278

SOURCE: EDD Base Wage Data
NOTE: Quarterly Earnings are averaged only for those quarters and women with positive earnings.

Cal-Learn will lead to economic self-sufficiency among teens if graduation enables them to do better in the job market and move off aid. The next set of tables directly tests the accuracy of this logic. First, using the graduation information recorded in administrative records, we compare educational outcomes for graduates and non-graduates and find that for all ages graduation not only increases employment rates but also quarterly earnings. All of these differences are statistically significant. We find that having graduated increases average quarterly earnings by between $332 and $563.

Table 5.3: Employment by Exit Status During Quarter Teen Turns Age 18, 19 and 20

Administrative Data	Exit Status: Graduated	Exit Status: Not Graduated	Difference
During the Quarter the Teen Turns Age 18			
Percent Employed	43.5	16.4	27.1***
Quarterly Earnings	$1341.13	$891.76	$449.37*
Sample Size	108	3300	
During the Quarter the Teen Turns Age 19			
Percent Employed	46.7	27.3	19.4***
Quarterly Earnings	$1677.48	$1345.81	$331.67**
Sample Size	306	2255	
During the Quarter the Teen Turns Age 20			
Percent Employed	43.0	32.3	10.7*
Quarterly Earnings	$2255.47	$1692.78	$562.69*
Sample Size	121	1157	

SOURCE: EDD Base Wage Data

NOTE: Statistical significance levels are indicated as *** ≤.001; **≤.01; *≤.05. Quarterly earnings are averaged only for those quarters and women with positive earnings. Age groupings are not mutually exclusive.

Employment in the Survey Data

The Retrospective Survey provides more detail about the amount and types of employment among Cal-Learn teens. In the first wave of the survey, 15% of respondents said that they were currently working (see Table 5.4). By the second wave of the survey, this percentage increased to 32%. For teens who were working at the time of the first interview, the mean and median hours worked per week is 26 hours. By the second interview, employed teens were working an average of 30 hours per week. On average, teens surveyed in Wave I report earning $5.55 per hour. By the second interview, the reported hourly wage increased to $6.32. There are no statistically significant differences between the No Treatment group and the other research groups in terms of any of these employment measures.

Table 5.4: Percent of Teens Currently Working by Research Group

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
At Wave I Interview	14.3	16.5	16.3	12.8	14.9
Sample Size	554	533	520	549	2156
At Wave II Interview	34.5	28.9	33.1	31.2	31.9
Sample Size	412	381	362	407	1562

SOURCE: Retrospective Survey Wave I & II

Cal-Learn teens are typically employed in the industries that use many young employees. The top five industries teens report working for include Eating and Drinking Places, Miscellaneous Retail Trade, Private Household Services, Department Stores, and Child Day Care Services. They generally hold service-oriented jobs such as restaurant workers, retail sales people, and child care providers.

Table 5.5: Percent of Teens Currently Working by School Enrollment and Research Group

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
At Wave I Interview					
While in School	11.7	15.8	15.0	9.1	12.9
While Not in School	16.5	17.2	17.6	15.8	16.8
Sample Size	554	533	519	549	2155
At Wave II Interview					
While in School	34.7	24.0	24.1	27.6	27.6
While Not in School	34.4	31.2	37.0	32.6	33.8
Sample Size	412	381	362	407	1562

SOURCE: Retrospective Survey Wave I & II

Teens who are in school work less than teens who are not in school. Table 5.5 shows that in the first wave, 13% of survey respondents who were in school also worked, while 17% of those not in school worked. The second wave of the survey finds more employment for both groups, 28% among those in school and 34% among those not in school. The differences in employment associated with being in school are statistically significant. Differences between the No Treatment and other research groups were not statistically significant.

The survey data confirm the findings in the administrative data that successful completion of high school is associated with more employment and higher earnings (see Tables 5.6 and 5.7).

Table 5.6: Employment Indicators by Educational Attainment and Age at Interview

	Educational Attainment			
Self-Report	High School Diploma	GED	Either H.S. Diploma or GED	Neither H.S. Diploma or GED
Age 18 at Interview				
Percent Currently Employed	40.7	41.4	40.8	16.8
Hourly Wage	$6.09	$6.14	$6.10	$5.56
Sample Size	91	29	120	417
Age 19 at Interview				
Percent Currently Employed	44.2	36.2	42.1	22.2
Hourly Wage	$6.09	$6.91	$6.28	$5.95
Sample Size	156	58	214	492
Age 20 or Over at Interview				
Percent Currently Employed	46.4	45.4	45.9	32.5
Hourly Wage	$6.49	$6.92	$6.70	$6.68
Sample Size	97	86	183	375

SOURCE: Retrospective Survey Wave I & II
NOTE: Hourly Wage is averaged only for those working women with positive wages.

Table 5.7: Differences in Employment Indicators by Educational Attainment and Age at Interview

	Comparisons Between Educational Attainment Groups			
Self-Report	Diploma vs Not Graduated	GED vs Not Graduated	Diploma/GED vs Not Graduated	Diploma vs GED
Age 18 at Interview				
Differences in the:				
Percent Currently Employed	23.9***	24.6***	24.0***	-0.07
Hourly Wage	$0.53*	$0.58	$0.54**	-$0.05
Age 19 at Interview				
Differences in the:				
Percent Currently Employed	22.0***	14.0*	19.9***	8.0
Hourly Wage	$0.14	$0.96	$0.33	-$0.82
Age 20 & Over at Interview				
Differences in the:				
Percent Currently Employed	13.9*	12.9*	13.4**	1.0
Hourly Wage	-$0.19	$0.24	$0.02	-$0.43

SOURCE: Retrospective Survey Wave I & II
NOTE: Statistical significance levels are indicated as ***≤.001; ** ≤.01; *≤ .05.

These data also allow us to compare the benefits of GEDs and HSDs. This is a critical contrast, because Cal-Learn leads to increases in GEDs, but not increases in HSDs. Table 5.6 shows the percent of teens reporting that they are currently employed by age and type of graduation. We find that the combination of getting older and graduating increases employment and hourly wages, and that GEDs and HSDs have about equal impacts. Table 5.7 shows the differences between education groups in their employment and wages, and their statistical significance. Both types of graduates work significantly more than non-graduates.

Welfare Receipt Outcomes

Welfare program participation indicators are drawn from the Assistance History Data, a file derived from the Medi-Cal Eligibility Data System. These data allow us to track participation in AFDC over time and across counties in California. They provide information on teen's AFDC participation before, during, and after the Cal-Learn program experience through December of 1998. These outcomes do not include teens' participation in any other public assistance program except AFDC/TANF. Hence, while the figures report the percent of teens on AFDC, most teens not on AFDC are still receiving non-AFDC benefits.

Welfare Receipt in the Administrative Data

As Table 5.8 shows, there are no differences between research groups in the time teens spend on AFDC either during or after Cal-Learn. There are, however, differences by age. The Cal-Learn mothers who are over age 18 have spent about two thirds of the months since turning age 18 on AFDC. As they get older, they are more likely to leave aid for brief spells, or even to exit aid completely. Teens have spent about half (51%) of the months since turning 20 on AFDC.

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Table 5.8: Percent of Months Teen on AFDC Since Turning Selected Ages

Administrative Data	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Since Turning Age 18					
Percent of Time on AFDC	67.1	65.2	66.1	67.6	66.5
Sample Size	863	848	818	881	3410
Since Turning Age 19					
Percent of Time on AFDC	60.8	57.0	59.2	60.5	59.4
Sample Size	636	626	623	676	2561
Since Turning Age 20					
Percent of Time on AFDC	53.5	46.6	54.2	50.8	51.3
Sample Size	315	305	307	351	1278

SOURCE: Assistance History Data

While graduates are less likely to be on AFDC than non-graduates, the reduction in aid receipt associated with graduations is smaller than the gains in employment and is significant only for teens 18 or 19 years of age (see Tables 5.9 and 5.10). At these ages, we find a difference of 11 percentage points between graduates and non-graduates in the proportion on aid. By age 20, the differences in aid receipt associated with graduating are very small. For both graduates and non-graduates, most teens are still receiving cash assistance after age 20.

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Table 5.9: Percent of Teens on Aid by Educational Attainment and Age at Interview

	Educational Attainment			
Self-Report	High School Diploma	GED	Either H.S. Diploma or GED	Neither H.S. Diploma or GED
Age 18 at Interview				
Percent Currently on AFDC	66.0	69.0	66.7	77.5
Sample Size	91	29	120	417
Age 19 at Interview				
Percent Currently on AFDC	68.0	60.3	65.9	76.6
Sample Size	156	58	214	492
Age 20 & Over at Interview				
Percent Currently on AFDC	63.9	62.8	63.4	67.2
Sample Size	97	86	183	375

SOURCE: Retrospective Survey Wave I & II

Table 5.10: Differences in Percent on Aid by Educational Attainment and Age at Interview

	Educational Attainment			
Self-Report	Diploma vs Not Graduated	GED vs Not Graduated	Diploma/GED vs Not Graduated	Diploma vs GED
Age at Interview				
Age 18	-11.5*	-8.5	-10.8*	-3.0
Age 19	-8.6*	-16.3*	-10.7**	7.7
Age 20 & Over	-3.3	-4.4	-3.8	1.1

SOURCE: Retrospective Survey Wave I & II

Combining Employment and Welfare Receipt

In this last section, we consider the conjunction of employment and aid receipt among teens. Using the time periods in which we have both assistance history and base wage data, Table 5.11 provides a view of teens' movement toward self-sufficiency. The results suggest that, even within the short window of observation available to find impacts, the proportion of teens moving toward employment while off aid increases as teens get older. Even among the older teens, however, the large majority of former Cal-Learn teens remain on aid or mix aid with employment.

Table 5.11: Percent of Teens Combining Aid and Employment

Administrative Data	Time Since			During First Quarter At		
	Age 18	Age 19	Age 20	Age 18	Age 19	Age 20
Not Employed and On Aid	39.4	38.0	35.4	63.3	56.6	41.3
Employed and On Aid	53.1	46.6	33.9	12.3	22.3	20.9
Not Employed and Not On Aid	4.5	8.6	18.8	19.4	13.8	25.4
Employed and Not On Aid	2.7	6.8	12.0	4.9	7.3	12.4
Sample Size	3410	2561	1278	3410	2561	1278

SOURCE: EDD Base Wage and Assistance History Data
NOTE: Age groupings are not mutually exclusive.

Chapter Summary: Impacts on Employment and Welfare Receipt

- Substantial effects of Cal-Learn on self-sufficiency should not be expected during the limited time period available for this evaluation. By the end of the evaluation period, the majority of the sample is under 20 years old and generally has only one year of post Cal-Learn experience.

- The basic logic of the Cal-Learn program, which suggests that the educational credentials earned by Cal-Learn teens should be rewarded by greater employment opportunities, is strongly supported in the data. The administrative data show graduates to be 19 percentage points more likely to be employed at age 19 and 11 percentage points more likely to be employed at age 20. The survey data provide very similar results. Working graduates tend to earn more than working teens who do not have a diploma or GED.

- A high school diploma and GED offer similarly substantial and statistically significant benefits in employment and earnings when compared to not graduating.

- The impact of graduation on welfare receipt is less clear. A statistically significant 11 percentage point difference emerges between graduate and non-graduates at ages 18 and 19, but this difference vanishes almost entirely for 20-year-olds.

- Even though the link between graduation and employment was confirmed, the research groups do not differ significantly from one another in terms of employment or in terms of AFDC receipt during the time period examined for this evaluation.

PART THREE

CAL-LEARN PROGRAM IMPLEMENTATION

VI. CAL-LEARN FINANCIAL INCENTIVES – APPLICATION AND EXPERIENCES

Introduction

This chapter examines the application of Cal-Learn's financial incentives and the teens' experiences with and evaluation of those incentives. Both administrative and survey data are used to identify the proportion of teens who experienced sanctions and bonuses. The survey data are then used to assess the teens' knowledge and understanding of three aspects of the financial incentives:

1) their understanding of their eligibility for and receipt of bonuses and sanctions
2) their opinions of the fairness of bonuses and sanctions
3) their evaluation of the effectiveness of bonuses and sanctions

Teens assigned to either of the two financial incentives groups are eligible for three types of financial incentives:

Sanction
A $100 sanction results from a participant failing to demonstrate adequate progress without a good reason, either by failing to provide a report card or based on report card grades. Adequate progress is defined as a grade point average of at least 1.0 (a D average). The sanction is applied to the family's aid and may not exceed $50 in a single month.

A $50 sanction results from a participant turning in a report card late without a good reason for being late despite the fact that the report card showed adequate progress. A $50 sanction also results from turning in a report card late without a good reason for being late but with a good reason for unsatisfactory progress.

Progress Bonus
A $100 bonus is provided to the family up to four times a year if the participant maintains satisfactory progress. Satisfactory progress is defined as a grade point average of 2.0 (a C average) or better.

Graduation Bonus
Cal-Learn participants receive a one-time $500 bonus for high school graduation or equivalent.[14] The bonus is paid to the teen parent.

A Cal-Learn participant is not eligible for either bonuses or sanctions during her first 90 days in Cal-Learn and during months when her school is not in session. Teens who have a grade point average between 1.0 and 2.0 receive neither a bonus nor a sanction for that report card period.

There are two sources of data on receipt of financial incentives. The first source is the administrative data from the AFDC and GAIN files which record budget item payments and deductions made to participants' cases. A second source is the Retrospective Survey in which surveyed teens reported their eligibility for and receipt of bonuses and sanctions. Two waves of survey interviews were conducted during the period from April 1996 to October 1999.

Administrative Records of Bonuses and Sanctions

Administrative data on the application of bonuses and sanctions are drawn from AFDC and GAIN records. The receipt of bonuses is identified from warrant payments in the month they are issued. Sanctions are based upon prospective budget items intended to reflect the amount of and reason for the sanction. There may be a substantial lag between the month in which a teen incurs a sanction and the month it is imposed. These lags cannot be precisely measured in the administrative data because there is no reliable and consistent method of linking the month a sanction is imposed and the month in which it was incurred.

The administrative data cover the period starting with each teen's enrollment and ending with her exit from Cal-Learn or November 1998, whichever comes first. Table 6.1 shows the overall bonus and sanction rates from the administrative data as of November 1998 for the 1790 teens in the Financial Only and Full Cal-Learn groups included in the administrative sample.[15] Nearly 70% of teens in both the Financial Only and Full Cal-Learn groups experienced some form of financial incentive by the end of the administrative data period. However, the likelihood of experiencing a bonus versus a sanction differed substantially by research group.

Table 6.1: Percent of Teens Receiving Bonuses and Sanctions: Contrasts by Group

	Research Group		Difference
Administrative Data	Full Cal-Learn	Financial Only	
Any Bonus or Sanction	68.7	69.9	-1.2
Any Bonus	40.9	31.5	9.4***
Progress Bonus	37.8	28.0	9.8***
Graduation Bonus	10.2	9.3	0.9
Sanction	42.9	52.4	-9.5***
Sample Size	871	919	

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05.
For categorical variables, significance levels are based on chi-square tests.

Teens who were eligible for both financial incentives and case management were significantly more likely to receive some form of bonus than teens who were eligible for financial incentives only. Nearly 41% of Full Cal-Learn teens received some form of bonus while less than 32% of Financial Only teens ever received a bonus. This difference is largely due to the significantly higher proportion of teens in the Full Cal-Learn who received a progress bonus (38%) relative to teens in the Financial Only group (28%). Although the Full Cal-Learn teens were also more likely to receive a graduation bonus (10%) than teens who received only financial incentives (9%), the difference was not statistically significant.

Conversely, teens in the Financial Only group were significantly more likely to receive a sanction than teens in the Full Cal-Learn group. Approximately 52% of the Financial Only teens received a sanction compared to only 43% of teens who were also case managed.

Among the subsample of teens who received a financial incentive many had received multiple incentives. Sanctioned teens had an average of four sanctioned months during their participation in Cal-Learn. Since $100 sanctions are split across two months, four sanctioned months do not necessarily indicate that the teen was sanctioned four times. Teens who received a bonus received an average of two bonuses.

Twenty-one percent of teens in the two financial groups received a mixture of bonuses and sanctions. Of the Financial Only teens who received at least one progress bonus, 44% also received at least one sanction; a smaller proportion of Full Cal-Learn teens who received a progress bonus also received a sanction (38%). Conversely, only 24% of sanctioned Financial Only teens ever received a progress bonus while 34% of sanctioned Full Cal-Learn teens received a progress bonus. In a majority of cases (56%), the teens received a bonus before receiving a sanction. There were no differences across research groups in the probability of getting both a sanction and a bonus nor in the timing of receipt.

In sum, teens subject to both case management and financial incentives received more rewards and fewer penalties than teens without case management. Full Cal-Learn teens were significantly more likely to receive a bonus than their counterparts in the Financial Only group and they were significantly less likely to receive a sanction. In addition, while Full Cal-Learn teens were equally likely to receive a bonus or sanction, teens in the Financial Only group were nearly twice as likely to receive a sanction than a bonus.

Survey Reports of Bonuses and Sanctions

In addition to the information from administrative sources on actual receipt of bonuses and sanctions, we also have the teens' self-report of receipt of financial incentives from the two waves of the Retrospective Survey. Interviews for the first wave of the Retrospective Survey were conducted from April 1996 to April 1999. Three-fourths of these teens were re-interviewed for the second wave of the survey during the period from July 1997 to October 1999. As a result, for some teens we have two reports on their receipt of financial incentives.

Not all teens included in the administrative sample used above were interviewed either in Wave I or II of the Retrospective Survey. In addition, some teens were interviewed prior to obtaining six months of exposure to the Cal-Learn program. The survey results reported below are derived from the 2156 teens who had at least six months of exposure to the Cal-Learn program by the time of their first or second interview.[16] There is additional information in the second wave of the survey for 1562 of these teens.

Because the first and second waves of survey interviews were conducted from April 1996 to October 1999, the time period covered by the survey for each teen will vary. In contrast, the administrative data cover each teen's experience from her Cal-Learn enrollment until November 1998 or her exit from Cal-Learn, whichever comes first. For teens interviewed after their exit from Cal-Learn or the end of the administrative data in November 1998, the Retrospective Survey will cover a period of time longer than the administrative data. For teens interviewed

prior to their exit or November 1998, the survey data will cover a shorter time period. As a result, for most teens the survey data do not describe the same time period as the administrative data. Despite these differences, results from the survey support and reinforce the findings based on administrative data.

It is also important to note that while a graduation bonus would probably have been very apparent to a teen because the check was made out for exactly $500 and paid directly to the teen, the progress bonuses and sanctions may have been less obvious. These incentives would typically be applied several months after the report card that triggered the event and they were applied to the family's grant as a bonus or a deduction. Los Angeles, for example, only started applying sanctions in July 1995, and at that point imposed retroactively sanctions earned more than a year earlier. In addition, welfare grant levels in all counties fluctuated for a variety of reasons during the period of the study; as a result, a fluctuation due to a progress bonus or sanction may have been indistinguishable from other changes in grant levels.[17]

Table 6.2 contains data on the reported receipt of financial incentives for the 1087 teens in our survey sample who were randomized into the Full Cal-Learn and Financial Only groups. This table incorporates data from both the first wave and, where available, the second wave of the survey. For example, a teen who was interviewed in both waves of the survey could have experienced a financial incentive either by the time of her first interview or between her first interview and her second interview. For teens who were not re-interviewed in the second wave, we have only one report on the receipt of financial incentives.

On average, 64% of teens in the two financial incentives groups reported receiving some form of financial incentive.[18]

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Table 6.2: Percent of Teens Reporting the Receipt of Bonuses and Sanctions: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: Financial Only	Difference
Any Bonus or Sanction	66.8	61.5	5.3
Any Bonus	47.5	40.3	7.2*
Progress Bonus	42.3	35.8	6.5*
Graduation Bonus	16.4	14.3	2.1
Sanction	34.1	36.4	-2.3
Sample Size	554	533	

SOURCE: Retrospective Survey Wave I & II
NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. For categorical variables, significance levels are based on chi-square tests.

Teens in the Financial Only group were more likely to report receiving a sanction (36%) than teens in the Full Cal-Learn group (34%).[19] Receipt of bonuses from the survey data mimic more closely the pattern found in the administrative data with 48% of Full Cal-Learn teens, but only 40% of Financial Only teens, reporting a bonus. This statistically significant difference in overall bonus rates is mainly due to higher receipt of progress bonuses among Full Cal-Learn teens (42%) than Financial Only teens (36%). As in the administrative data, the difference in reported graduation bonuses was not significant.

In sum, despite differences in the sample and sample period, the results from the Retrospective Survey confirm the findings from the administrative data. Teens in the Full Cal-Learn group, who were eligible for both case management and financial incentives, were more likely to receive a bonus than teens in the Financial Only group. The Full Cal-Learn teens were also less likely to receive a sanction than teens who were only subject to financial incentives.

Self-Report of Eligibility for Financial Incentives

The survey data make it clear that not all teens in the Full Cal-Learn and Financial Only research groups realized that they were subject to bonuses and sanctions based on school performance. In this section, we explore which teens failed to recognize their eligibility and why. To assess their understanding of their eligibility for financial incentives, surveyed teens were asked the following questions:

> *So far as you know, are you (have you ever been) in the Cal-Learn Program?*

Teens who responded in the affirmative were then asked the following four questions regarding their understanding of their eligibility for financial incentives:

> *So far as you know, can (could) you or your family get a Cal-Learn bonus of $100 for getting a good report card or progress report?*

So far as you know, can (could) you or your family get a Cal-Learn bonus of $500 if you graduate (graduated) from high school or get (got) a GED?

So far as you know, can (could) you or your family have a Cal-Learn sanction of $50 taken out of two AFDC checks if you do (did) not turn in a report card or progress report?

So far as you know, can (could) you or your family have a sanction of $50 taken out of two AFDC checks for a failing report card or progress report, or for each report card period you are (were) out of school?

Of teens randomly assigned to the two financial incentives groups, approximately 85% reported that they were eligible for at least one type of bonus or sanction at either their first or second interview. There was large variability in understanding across the two financial incentives groups. Nearly 91% of Full Cal-Learn teens recognized that they were subject to some form of financial incentive compared to only 79% of the Financial Only teens.

Teens failed to recognize their eligibility for financial incentives either because they did not realize they were in Cal-Learn or because they thought they could not receive bonuses or sanctions based on school performance. Of Full Cal-Learn teens, only 6% did not realize they were in Cal-Learn while 3% knew they were in Cal-Learn, but did not believe they could receive any bonuses or sanctions. The corresponding percentages for the Financial Only teens are 19% and 2%.

Teens who incorrectly perceived their treatment condition at the first wave were more likely to change their response in the second wave. Of teens who mistakenly thought they were not eligible for financial incentives in the first wave and who were interviewed in the second wave, only half (51%) still believed they were not eligible for financial incentives at the time of the second wave.

Teens in both financial incentives groups were more likely to realize their eligibility for bonuses than for sanctions. Only 61% of these teens knew they could be sanctioned for failing or being out of school; a similar percentage (62%) realized they could be sanctioned for not turning in a report card. Teens were more likely to realize they could receive a bonus for school progress (68%) and for graduating (72%). Overall, 85% of teens knew they were eligible for either a bonus or a sanction.

As further confirmation of teens' awareness of financial incentives, we focus only on teens for whom administrative data indicate that a particular bonus or sanction was issued. Of teens who received a graduation bonus according to administrative records, 91% reported receipt of a graduation bonus in the survey. The corresponding percentage for teens who received progress bonuses was slightly lower at 80%. Awareness of sanctions was much lower with only 56% of sanctioned teens reporting receipt, but this may be partly due to teens' unwillingness to report a sanction.

To summarize, while understanding of financial incentives was relatively high in both financial incentives groups, teens who also had case managers were more likely to understand their eligibility for financial incentives in general. They were also more likely to realize their eligibility for each incentive type than teens who were subject only to financial incentives. Awareness of eligibility and receipt was greater for bonuses than for sanctions.

Assessment of the Fairness and Effectiveness of Financial Incentives

All 2156 teens surveyed in the first wave were asked to assess both the fairness and effectiveness of financial incentives, regardless of whether they were randomized into a financial incentives group and regardless of whether they realized that they were in Cal-Learn and subject to financial incentives. They were first asked whether they felt each type of bonus and sanction was fair or not. Then the teens were asked to rank the effectiveness of bonuses and sanctions separately. The 1562 teens who were re-interviewed in the second wave of the survey were asked these questions a second time.

Bonuses

The questions regarding bonuses were as follows:

> *Some teens in Cal-Learn can get a Cal-Learn bonus of $100 for each good report card. Do you think this is basically fair or not fair?*
>
> *Some teens in Cal-Learn can get a Cal-Learn bonus of $500 for graduating from high school. Do you think this is basically fair or not fair?*
>
> *How useful do you think giving them money for good grades or graduating from high school is in helping teens to stay in school? Would you say it is: very useful, somewhat useful, not too useful or it doesn't make any difference?*

In the first wave, over 90% of all teens felt that both the progress bonus and the graduation bonus were fair (see Table 6.3). Support for the fairness of bonuses was high across all four randomized research groups with averages across groups ranging from a low of 84% for Case Management Only teens to a high of 95% for Full Cal-Learn teens.

Table 6.4 shows that teens randomized into one of the two financial incentives groups were more likely to feel that bonuses were fair than teens in non-financial incentives groups. On average, approximately 95% of teens in the two financial incentives groups felt that the bonuses were fair compared to only about 87% of the non-financial incentives groups. This difference in reported fairness was statistically significant at the .001 level.

The results for the effectiveness of bonuses are similar. Overall, 84% of surveyed teens ranked bonuses as “Very Useful” or “Somewhat Useful”. While support for the effectiveness of bonuses was strong across all four randomized research groups, teens who were eligible for

bonuses were significantly more likely to feel that bonuses were effective with 60% reporting that bonuses were "Very Useful" versus only 55% of the ineligible teens.

In rating both the fairness and effectiveness of bonuses, the Full Cal-Learn group was most likely to believe that bonuses were fair and also most likely to feel that they were "Very Useful".

Table 6.3: Teens' Evaluation of the Fairness and Effectiveness of Bonuses by Research Group

Self-Report	Research Group				All
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
Fairness of Bonuses					
Progress Bonus Fair	95.0	93.5	85.1	89.0	90.7
Graduation Bonus Fair	95.3	94.8	83.5	90.5	91.1
Effectiveness of Bonuses					
Very Useful	63.2	57.2	52.6	56.7	57.5
Somewhat Useful	22.8	27.3	30.2	26.4	26.6
Not Too Useful	1.3	1.5	2.2	1.7	1.7
No Difference	12.7	14.0	15.1	15.2	14.3
Sample Size	535	522	504	538	2098

SOURCE: Retrospective Survey Wave I

NOTE: Regarding the fairness and effectiveness of bonuses, 58 of the 2156 surveyed teens either refused to answer or responded that they did not know.

(Remainder of page left blank intentionally.)

Table 6.4: Teens' Evaluation of the Fairness and Effectiveness of Bonuses: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: No Treatment	Difference
Fairness of Bonuses			
Progress Bonus Fair	95.0	89.0	6.0***
Graduation Bonus Fair	95.3	90.5	4.8**
Effectiveness of Bonuses			
Very Useful	63.2	56.7	*
Somewhat Useful	22.8	26.4	
Not Too Useful	1.3	1.7	
No Difference	12.7	15.2	
Sample Size	535	522	

Self-Report	Treatment Condition: Any Financial Incentives	Treatment Condition: No Financial Incentives	Difference
Fairness of Bonuses			
Progress Bonus Fair	94.2	87.1	7.1***
Graduation Bonus Fair	95.1	87.1	8.0***
Effectiveness of Bonuses			
Very Useful	60.2	54.7	*
Somewhat Useful	25.0	28.2	
Not Too Useful	1.4	1.9	
No Difference	13.4	15.2	
Sample Size	1057	1042	

SOURCE: Retrospective Survey Wave I

NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. For categorical variables, significance levels are based on chi-square tests. Significance levels for ordered data (effectiveness of bonuses) are based on mean ranks tests; an N.S. indicates the differences are not statistically significant. The Any Financial Incentives Treatment Condition consists of both the Full Cal-Learn and the Financial Only research groups.

Questions regarding the fairness and effectiveness of bonuses were asked again in the second wave of the survey. Results from the second interview were similar to those from the first wave. Teens' evaluations of bonuses in the second interview are remarkably similar to their earlier assessment. Approximately 89% of teens in the second wave reported that they felt bonuses were fair and 86% reported that they were "Very Useful" or "Somewhat Useful". Teens in groups eligible for financial incentives were more likely to find bonuses fair and effective. As in the first wave, support for bonuses was highest among Full Cal-Learn teens.

Sanctions

Teens were asked a similar set of questions regarding the fairness and effectiveness of sanctions:

In Cal-Learn, some teens can have a Cal-Learn sanction of $50 taken out of two AFDC checks for each failing report card. How do you feel about this? Do you think it is basically fair or not fair?

In Cal-Learn, some teens can have a Cal-Learn sanction of $50 taken out of two AFDC checks for each report card period they are out of school. How do you feel about this? Do you think it is basically fair or not fair?

How useful do you think taking money out of their AFDC checks if they are failing or if they drop out of school is in helping teens to stay in school? Would you say it is: very useful, somewhat useful, not too useful or it doesn't make any difference?

The results for sanctions were qualitatively similar to the results for bonuses. In the first wave of the survey, most teens felt that sanctions were fair and effective, but with less of a majority than for bonuses. Approximately 60% of surveyed teens found sanctions to be fair; a similar percentage found them effective.

Table 6.5 shows that a majority of teens in each research group felt that each type of sanction was fair. The strongest support for sanctions was found among teens subject to financial incentives, where 63% felt that the sanctions were fair relative to only 57% of the non-financial incentives groups (see Table 6.6). Differences in support for each sanction were statistically significant.

Table 6.5: Teens' Evaluation of the Fairness and Effectiveness of Sanctions by Research Group

	Research Group				
Self-Report	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Fairness of Sanctions					
Failing Report Card Fair	65.4	59.0	56.2	56.1	59.2
Out of School Fair	64.6	61.4	58.0	58.7	60.7
Effectiveness of Sanctions					
Very Useful	31.3	28.6	27.0	27.9	28.7
Somewhat Useful	35.3	31.7	37.2	34.2	34.6
Not Too Useful	17.8	22.1	20.9	20.9	20.4
No Difference	15.6	17.7	14.9	17.0	16.3
Sample Size	534	521	503	535	2093

SOURCE: Retrospective Survey Wave I

NOTE: Regarding the fairness and effectiveness of bonuses, 63 of the 2156 surveyed teens either refused to answer or responded that they did not know.

Table 6.6: Teens' Evaluation of the Fairness and Effectiveness of Sanctions: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: No Treatment	Difference
Fairness of Sanctions			
Failing Report Card	65.4	56.1	9.3**
Out of School	64.6	58.7	5.9*
Effectiveness of Sanction			
Very Useful	31.3	27.9	N.S.
Somewhat Useful	35.3	34.2	
Not Too Useful	17.8	20.9	
No Difference	15.6	17.0	
Sample Size	535	535	

Self-Report	Treatment Condition: Any Financial Incentives	Treatment Condition: No Financial Incentives	Difference
Fairness of Sanctions			
Failing Report Card Fair	62.2	56.1	6.1**
Out of School Fair	63.0	58.3	4.7*
Effectiveness of Sanctions			
Very Useful	30.0	27.5	N.S.
Somewhat Useful	33.5	35.6	
Not Too Useful	19.9	20.9	
No Difference	16.6	16.0	
Sample Size	1057	1060	

SOURCE: Retrospective Survey Wave I

NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. For categorical variables, significance levels are based on chi-square tests. Significance levels for ordered data (effectiveness of sanctions) are based on mean ranks tests; an N.S. indicates the differences are not statistically significant. The Any Financial Incentives Treatment Condition consists of both the Full Cal-Learn and the Financial Only research groups.

Regarding the effectiveness of sanctions, at least 60% of each research group considered sanctions "Very Useful" or "Somewhat Useful". Teens in the financial incentives groups were more likely to report that sanctions were "Very Useful" than teens in the non-financial incentives groups. While the difference was not statistically significant, 30% of the financial incentives groups felt that sanctions were "Very Useful" compared to only 28% of the non-financial incentives groups.

As with bonuses, the strongest support for both the fairness and effectiveness of sanctions was found among the Full Cal-Learn teens.

The results for the 1526 teens re-interviewed in the second wave were similar to those of the first wave. However, unlike bonuses, there were increases in support for sanctions. Approximately

68% of teens interviewed in the second wave reported that sanctions were fair and 72% found sanctions "Very Useful" or "Somewhat Useful". The biggest increase in support was among Case Management Only teens. Despite this increase, the strongest support for sanctions remained among teens in the Full Cal-Learn group.

Although there was a substantial increase in support for sanctions, teens continued to view sanctions less favorably than bonuses.

In sum, there is strong overall support for financial incentives. In their first interview, an average of 85-90% of all surveyed teens felt that bonuses were useful and fair, while 60-65% of these same teens felt that sanctions were useful or fair. Teens subject to financial incentives were more likely to find both bonuses and sanctions fair and effective than teens who were not subject to financial incentives. The strongest support for financial incentives was found among teens in the Full Cal-Learn group, which was subject to both financial incentives and case management. Support for bonuses was constant between the first and second wave of the survey. Support for sanctions increased, though not enough to surpass support for bonuses.

Chapter Summary: Cal-Learn Financial Incentives – Application and Experiences

- Administrative data indicate that a majority (69%) of teens subject to financial incentives experienced some form of financial incentive while participating in Cal-Learn.

- Teens in the Full Cal-Learn group were significantly more likely to receive a bonus (41%) than teens in the Financial Only group (32%). Teens in the Full Cal-Learn group were also significantly less likely to receive a sanction (43%) than teens in the Financial Only group (52%).

- The findings from the survey data on receipt of financial incentives mimic the results found in the administrative data. Using data from both the first and second wave of the Retrospective Survey, we find that a majority (64%) of teens reported experiencing financial incentives with Full Cal-Learn teens reporting more bonuses and fewer sanctions than teens in the Financial Only group.

- Although the survey data indicate that a majority (85%) of teens in the two financial incentives groups recognized their eligibility for financial incentives, knowledge of eligibility was substantially stronger among case managed teens (91%) than teens subject only to financial incentives (79%).

- A majority of teens in the first wave supported each financial incentive, though support was stronger for bonuses than sanctions. Approximately 85-90% of teens in all four research groups felt that bonuses were fair and effective. A smaller majority, 60-65%, felt that sanctions were fair and effective.

- Support for both the fairness and effectiveness of financial incentives was stronger among teens subject to financial incentives than teens who were not; the strongest

support for incentives was found among teens subject to both case management and financial incentives.

- Support for bonuses remained constant in the second wave of the survey, while support for sanctions increased. Despite this increase, support for bonuses was stronger than for sanctions.

VII. CAL-LEARN CASE MANAGEMENT – APPLICATION AND EXPERIENCES

Introduction

This chapter examines the provision of case management and the teens' experiences with and evaluation of that treatment. The analysis focuses on the quantity and character of the case manager contacts experienced by teens randomized into the two case managed research groups, as well as the teens' evaluation of the usefulness of case management.

We use data from administrative records and from both waves of the Retrospective Survey. The administrative data are drawn from the Lodestar Contacts File. This file provides measures of the frequency, type, and timing of case manager contact between teens and their Cal-Learn case managers. The two waves of the Retrospective Survey provide a second source of information on case manager contact. All surveyed teens who knew they were in Cal-Learn were asked whether they have (ever had) a Cal-Learn case manager. Teens who responded that they had a case manager were then asked a series of questions regarding both the quantity and quality of their case manager contact. Interviewed teens who knew they had a case manager were asked questions regarding:

1) the frequency of contact
2) the effectiveness of case managers
3) tasks the case managers helped with

Although the period covered by the survey is not equivalent to that covered by the Lodestar Contacts data, the survey results reinforce the findings from the administrative data.

Administrative Records of Case Manager Contacts

Data on contacts between teens and their Cal-Learn case managers were collected in the Lodestar Contacts File. San Bernardino and San Joaquin counties commenced collection of contacts data in July 1996. Alameda and Los Angeles did not start collecting these data until September 1996. The period covered for each teen begins with July 1996 (September 1996 for Alameda and Los Angeles counties) or the month the teen entered Cal-Learn, whichever is later. The covered period ends when the teen exits Cal-Learn or at the end of the administrative data in November 1998, whichever comes first. Due to the truncated collection period for these data, not all teens are included in the Lodestar Contacts File. Only teens who were active in Cal-Learn during the period when the Lodestar Contacts data were collected are included in the Lodestar Contacts File. Of the teens who were active while the contacts data were being collected, 1680 were randomized into one of the two case managed groups and are included in the analysis for this section. These 1680 teens included in the Lodestar sample represent 85% of all teens randomized into the two case managed groups.

For the relevant time period, the Lodestar Contacts File provides information on the number, type, and duration of case manager contact. In particular, the data include information on five types of personal contact including:

Home Visit
Takes place at the client's home and includes a case manager and the client in a face-to-face meeting. Others may or may not be present.

Office Visit
Takes place at the AFLP/Cal-Learn agency office and includes a case manager and the client in a face-to-face meeting. Others may or may not be present.

Field Visit
Takes place away from the client's home or AFLP/Cal-Learn agency office and includes a case manager and the client in a face-to-face meeting. Others may or may not be present.

Group Meeting
Takes place during a group activity conducted by the AFLP/Cal-Learn agency at which two or more clients are present. The client's case manager may or may not be involved.

Phone Contact
Occurs when a case manager speaks with the client over the phone.

The data also include information on two types of non-personal contact:

Collateral Facilitation
Consists of a face-to-face or telephone (not fax) contact on behalf of the client, the client's child, or the client's family with any individual who plays a significant role in the individual's health, education or welfare.

Correspondence
Information that is mailed or faxed to the client that relates to the activities of the current ISP (Individual Service Plan). This may include time used in the preparation of the materials if they are specific to a particular client, but does not count the time spent in preparing materials sent to multiple clients.

Type of Case Manager Contact

The Lodestar Contacts data indicate that more than 91% of the teens randomized into one of the two case managed groups experienced some form of case manager contact during the covered period. Much of the contact was in the form of personal contact: 87% of case managed teens had personal contact with their case managers.

Table 7.1 shows the relative prevalence of the contact types listed above. The most common forms of personal contact were home visits (74%) and phone contact (82%), while the most prevalent form of non-personal contact was correspondence (79%).

Table 7.1: Percent of Teens with Case Manager Contacts by Contact Type: Contrasts by Group

Administrative Data	Research Group: Full Cal-Learn	Research Group: Case Mgmt Only	Difference
Any Contact	91.9	90.5	1.4
Any Personal Contact	87.8	86.4	1.4
Home Visit	75.3	72.9	2.4
Office Visit	34.5	27.6	6.9**
Field Visit	25.9	24.0	1.9
Group Meeting	1.7	2.7	-1.0
Phone Contact	83.6	80.5	3.1
Non-Personal Contact			
Collateral Facilitation	67.2	65.2	2.0
Correspondence	79.4	78.9	0.5
Sample Size	866	814	

SOURCE: Lodestar Data
NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. For categorical variables, significance levels are based on chi-square tests.

Overall, teens in the Full Cal-Learn group were slightly more likely to experience case manager contact than teens in the Case Management Only group (see Table 7.1); these teens were also more likely to receive each type of contact except group meetings. These differences were not substantial and generally not statistically significant.

Frequency and Timing of Case Manager Contact

The frequency of case manager contact varied over the course of a teen's participation in Cal-Learn. Since the Lodestar data were not collected till mid-1996, the data source may contain information about a teen's contacts only early in her participation or only in the later months; also, for some teens, no contacts information is available in Lodestar. As a result, the mix of time periods for which contact data are available means that indications of the types or amount of contact do not necessarily reflect typical levels over a teen's entire period of participation.

For the subset of case managed teens in the Lodestar Contacts File who had at least one case manager contact (91%), contact was fairly constant throughout their participation in Cal-Learn. Teens experienced an average of 2.1 to 2.4 contacts per month; the corresponding average for personal contacts was 1.3 to 1.4 contacts per month. Teens in the Full Cal-Learn group experienced slightly more contacts and personal contacts per month than teens in the Case Management Only group.

Self-Report on the Provision and Effectiveness of Case Management

The two waves of the Retrospective Survey provide additional insight on teens' experiences with and evaluation of Cal-Learn case management. Data from the administrative sources and from the survey interviews are not strictly comparable because the sample periods differ as do the set of teens included in each data source.[20]

Self-Report of Experiences with Case Management

To assess the teens' awareness of the availability of case management, interviewed teens were asked the following questions:

> *So far as you know, are you (have you ever been) in the Cal-Learn Program?*

Interviewed teens who responded that they were (had been) in Cal-Learn were then asked to identify whether they had a Cal-Learn case manager:

> *Do you have (did you have) a case manager?*
>
> *Note: By a case manager, we do NOT mean an AFDC eligibility worker—instead we're talking about someone in the Cal-Learn program who helps find child care, transportation to school, health care for you and your child(ren), educational programs, and things like that.*

Most teens randomized into case managed groups were aware of their eligibility for case management. About 91% of the teens in the case managed groups knew that they were in Cal-Learn and that they had Cal-Learn case managers at either the first or second interview.[21] More of the Full Cal-Learn teens (94%) knew they were in Cal-Learn and had case managers than teens in the Case Management Only group (88%). Most teens who failed to recognize their participation in a case managed group failed to do so because they did not realize they were participating in Cal-Learn.

Some teens changed their beliefs regarding participation in case management. Teens who incorrectly perceived their treatment condition were more likely to change their response. Approximately 73% of teens, who incorrectly thought they were not case managed in the first wave and who were re-interviewed, still felt they were not case managed in the second wave.

Frequency and Timing of Case Management at Wave I Interview

Teens who responded that they were in Cal-Learn and had a case manager were then asked a series of questions on the quantity and type of case manager contact. Teens who were unaware they were in Cal-Learn or unaware that they had a Cal-Learn case manager are included in the following two tables, but are assumed to have not met or spoken with their case managers.

In the first wave of the Retrospective Survey, teens who reported that they were still enrolled in Cal-Learn or that they had left during the previous month were asked three questions regarding

recent contact with their case manager. Teens who reported exiting more than a month ago, were asked about case manager contact during the entire time they participated in Cal-Learn.

Teens Currently in Cal-Learn or Who Exited in the Previous Month

Teens currently in Cal-Learn or recently exited were asked the following three questions:

> *During (PREVIOUS MONTH), how many times did you meet with (a/your) case manager in person? Please include only those times you actually saw a case manager.*
>
> *During (PREVIOUS MONTH), how many times did you talk on the phone with (a/your) case manager? Please include all the times when you talked with your case manager, even those when you only talked for a minute or two.*
>
> *Now thinking back over the LAST THREE MONTHS—including (PREVIOUS MONTH)—how many times did you meet in person with (a/your) case manager?*

More than two-thirds of the 1074 case managed teens surveyed in the first wave were either still in Cal-Learn or had left less than a month ago. Sixty-three percent of these teens reported that they had met with their case manager at least once in the previous month (see Table 7.2). The results differed significantly by research group: 67% of the Full Cal-Learn group versus 58% of the Case Management Only teens. The mean number of case manager meetings during the previous month was just over one meeting for both research groups.

Over 66% of these case managed teens reported that they had also spoken to their case managers on the phone at least once during the previous month. Phone contact was significantly higher among Full Cal-Learn teens (72%) than Case Management Only teens (61%). Full Cal-Learn teens also had a higher average number of phone contacts during the previous month (2.4) than Case Management Only teens (2.0).

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Table 7.2: Percent of Teens Currently or Recently in Cal-Learn Reporting Case Manager Contact: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: Case Mgmt Only	Difference
During Previous Month			
Case Manager Meetings			
Percent of Teens	67.3	58.2	9.1*
Number of Meetings	1.1	1.0	0.1
Case Manager Phone Calls			
Percent of Teens	72.1	60.6	11.5**
Number of Phone Calls	2.4	2.0	0.4
During Previous 3 Months			
Case Manager Meetings			
Percent of Teens	85.4	74.6	10.8***
Number of Meetings	2.8	2.6	0.2
Sample Size	359	353	

SOURCE: Retrospective Survey Wave I
NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$. 05. For categorical variables, significance levels are based on chi-square tests.

Approximately 80% of these same teens reported meeting with their case manager at least once during the previous three months. Full Cal-Learn teens (85%) were significantly more likely to meet with their case managers during the previous three months than Case Management Only teens (75%). Full Cal-Learn teens also report meeting more frequently with their case managers during this period with an average of 2.8 meetings versus only 2.6 meetings for Case Management Only teens. While Full Cal-Learn teens were significantly more likely to report meeting with their case managers during the past three months, there were no significant differences in the frequency of that contact.

In short, teens in the Full Cal-Learn group were significantly more likely to both meet and talk on the phone with their case managers than teens who were eligible for only case management. They also reported more frequent contacts.

Teens Who Exited Cal-Learn More than 1 Month Ago

One-third of the 1074 case managed teens surveyed in the first wave had exited Cal-Learn more than a month ago. These teens were asked the following question regarding case manager contact during their participation in Cal-Learn.

> *Thinking about ALL THE TIME you were in Cal-Learn, how many times did you meet in person with (a/your) case manager?*

Of the case managed teens who had exited Cal-Learn over a month ago, approximately 77% reported meeting with their case manager during their participation in Cal-Learn. The results differed significantly by research group with 83% of the Full Cal-Learn group reporting meetings compared to only 70% of the Case Management Only teens (see Table 7.3).

These teens reported meeting with their case managers an average of approximately five times during their Cal-Learn participation. The average number of meetings did not differ significantly between Full Cal-Learn teens (5.6) and Case Management Only teens (4.6) during the period (averaging under 10 months) that teens were in Cal-Learn.

Table 7.3: Percent of Exited Teens Reporting Case Manager Contacts: Contrasts by Group

	Research Group		
Self-Report	Full Cal-Learn	Case Mgmt Only	Difference
During Cal-Learn Participation			
Case Manager Meetings			
Percent of Teens	82.7	70.1	12.6**
Number of Meetings	5.6	4.6	1.0
Sample Size	179	154	

SOURCE: Retrospective Survey Wave I
NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. For categorical variables, significance levels are based on chi-square tests.

Frequency of Case Manager Contact at Wave II Interview

In the second wave of the Retrospective Survey, all case managed teens who realized they had case managers were asked about their total number of case manager contacts regardless of whether they were still active in Cal-Learn or had exited the program. As above, teens who were unaware they were in Cal-Learn or unaware that they had a case manager are included in the following two tables, but are assumed to have not met or spoken with their case managers.

> *Thinking about ALL THE TIME(S) you had a case manager, how many times did you meet in person with (a/your) case manager?*

Re-interviewed teens reported an average number of 8.0 meetings with their case managers during the Cal-Learn participation. There were no differences in the reported number of case manager meetings across research groups.

Provision of Case Management

Teens were also asked about the effectiveness of case manager assistance both in general and regarding specific areas. All teens who reported having a case manager were asked to rate the overall effectiveness of the help they received from their case managers. Teens who had some schooling during their participation in Cal-Learn were asked to evaluate their case manager assistance with school-related issues. The subsample of teens who received supportive services was also asked whether their case managers assisted them in obtaining the necessary services.

The questions asked concerned:

1) effectiveness of overall case management
2) effectiveness of school-related help
3) help obtaining supportive services
    a) child care
    b) transportation money or bus passes

While all surveyed teens were asked to rate the fairness and effectiveness of financial incentives, only teens who believed they were in Cal-Learn and eligible for case management were asked about their experiences with case management. Among teens randomized into the two case managed groups, 978 teens (91%) realized that they were in Cal-Learn and that they had a case manager.

Effectiveness of Overall Case Management

All case managed teens who knew they had a Cal-Learn case manager were asked how much having a case manager helped.

> *Taking everything into consideration, how much has having a case manager helped you? A lot, some, a little, or not at all?*

Table 7.4 shows that a majority of case managed teens in the first wave of the Retrospective Survey felt that case managers helped "A Lot" or "Some". Teens in the Full Cal-Learn group rated the help they received from case managers significantly higher than teens in the Case Management Only group. A majority of the Full Cal-Learn group, 57% of teens, reported that their case managers helped them "A Lot" compared to 47% of the Case Management Only teens.

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Table 7.4: Teens' Evaluation of the Effectiveness of Case Manager Assistance: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: Case Mgmt Only	Difference
Overall Case Management			
Case Manager Helped			
A Lot	56.7	47.3	**
Some	23.4	26.3	
A Little	11.2	15.0	
Not at All	8.7	11.5	
Sample Size	492	419	
School-Related Help			
Case Manager Helped			
A Lot	43.2	35.1	**
Some	27.5	24.1	
A Little	15.0	18.4	
Not at All	14.3	22.4	
Sample Size	426	348	

SOURCE: Retrospective Survey Wave I
NOTE: Statistical significance levels are indicated as *** ≤.001; ** ≤.01; * ≤.05. Significance levels for ordered data are based on mean ranks tests.

In the second wave of the survey, teens were again asked their opinions of case management. The results for overall case management help were similar to those in the first wave. Fifty-five percent of teens felt that case managers helped them "A Lot" and another 23% felt they helped "Some". The results by research group also parallel the first wave results.

Effectiveness of School-Related Help

In addition to rating the quality of general case management help, teens were also asked about any school-related help provided by their case managers. Depending on whether teens were enrolled in a school or GED program during their participation in Cal-Learn, they were asked one of the following questions:

> *How much (does/had) your case manager (help/helped) you with the things you (need/needed) to do your school work or stay in school? A lot, some, a little, or not at all?*

> *How much (does/has) your case manager (help/helped) you with the things you (need/needed) to do your GED program or stay with the program? A lot, some, a little, or not at all?*

Of teens in the first wave who had some form of schooling during their participation in Cal-Learn, a majority reported that case managers helped them with these school related issues "A Lot" or "Some". Full Cal-Learn teens (43%) were significantly more likely to report that their case managers helped them "A Lot" than Case Management Only teens (35%).

In the second wave, re-interviewed teens rated case manager help with school-related issues somewhat more highly than in the first wave. Forty-five percent of teens responded that case managers helped them with school related issues "A Lot" and another 22% thought case managers helped them "Some". The differences across research groups were similar to the first wave.

Help Obtaining Supportive Services

All surveyed teens who knew they were in Cal-Learn were also asked about their receipt of supportive services. Note that all Cal-Learn participants are eligible for supportive services.[22]

Therefore, questions regarding receipt of supportive services were asked of all teens in the survey who knew they were in Cal-Learn. However, only case managed teens who knew they had a case manager were asked whether their Cal-Learn case manager helped them obtain supportive services. Receipt of supportive services is discussed in greater detail in Chapter VIII.

Teens were asked whether they had received child care paid for by Cal-Learn or by the welfare department. They were also asked whether they received transportation money or bus passes from their case manager. Teens who received each service were then asked the corresponding question about case manager help.

> *Did (a/your) case manager help you get that child care, did someone else help you, or did you get it pretty much on your own?*
>
> *Did (a/your) case manager give you bus passes or money for transportation, did you get them from the welfare office or from someone else?*

While supportive services usage was low among Cal-Learn teens, nearly a third of surveyed case managed teens reported receiving child care paid for by Cal-Learn or the welfare department. Of teens who received child care and knew they had a case manager, a majority reported that their Cal-Learn case manager helped them obtain paid child care: 59% of the Full Cal-Learn group and 71% of the Case Management Only group (see Table 7.5).

This difference was not apparent in the second wave, in which teens in the Full Cal-Learn group and teens in the Case Management Only group did not differ statistically from one another in their evaluations of the helpfullness of their case manager in obtaining child care.

Table 7.5: Case Manager Help with Obtaining Supportive Services: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: Case Mgmt Only	Difference
Child Care			
Case Manager Helped	58.5	71.0	-12.5*
Sample Size	142	100	
Transportation			
Case Manager Helped	77.0	81.1	-4.1
Sample Size	296	222	

SOURCE: Retrospective Survey Wave I
NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05. For categorical variables, significance levels are based on chi-square tests.

Nearly 59% of surveyed case managed teens reported receiving transportation money or bus passes. Teens who received transportation funding and who knew they had a case manager were asked whether their case managers helped them obtain this service. A majority of these teens reported that their Cal-Learn case manager helped them get this service. Approximately 77% of the Full Cal-Learn group and 81% of the Case Management Only group reported that their case manager helped them get transportation money or bus passes.

In the second wave of the Retrospective Survey, a similar percentage (80%) reported that their case managers helped them obtain transportation funding. In neither the first nor second waves were the group differences in transportation assistance statistically significant.

Summary of Teens' Assessment of Case Management

Only case-managed teens who realized they had a case manager were asked to review the effectiveness of case management. A majority of these teens reported that, overall, having a case manager helped them "A Lot" and an additional quarter said having a case manager helped them "Some". Of the subset of these teens who had some schooling during their participation in Cal-Learn, about 40% also reported that case managers helped them with school related issues "A Lot", and 26% reported that case managers helped them "Some". Teens in the Full Cal-Learn group rated both aspects of case manager helpfulness more highly than did teens assigned to the Case Management Only group. Of the subset that reported receipt of childcare or transportation funding paid for by Cal-Learn or the welfare department, a large majority said that their case managers helped them gain access to those services. The results from the second wave of the survey were similar to the first survey.

Chapter Summary: Cal-Learn Case Management – Application and Experiences

- Administrative (Lodestar) data indicate that 91% of case managed teens experienced some form of case manager contact, and nearly as many teens (87%) had personal contact with their case manager.

- According to the Lodestar data, teens received more than 2 contacts per month during the first six quarters of Cal-Learn participation; at least one of these monthly contacts was personal contact with their case manager. Although the differences were not substantial, Full Cal-Learn teens were slightly more likely to experience each type of case manager contact than Case Management Only teens.

- Approximately 91% of case managed teens knew they were in Cal-Learn and that they had a case manager. Awareness was higher among Full Cal-Learn teens than Case Management Only teens. Of the 9% of teens who did not know they were case managed, most did not realize that they were participating in the Cal-Learn program.

- Survey data reinforce the administrative finding that most case managed teens experienced personal case manager contact. Of teens currently or recently in Cal-Learn, 80% reported meeting with a case manager within the last 3 months and about 63% had met with a case manager within the previous month. Approximately two-thirds had phone contact within the previous month.

- Survey data also confirm the finding from the administrative data that Full Cal-Learn teens were more likely to receive contact and that they had slightly more contact on average.

- The average number of contacts for exited Cal-Learn teens in the first survey was just over 5 contacts. In the second wave of the Retrospective Survey, all case managed teens reported an average of 8 contacts during Cal-Learn participation.

- Most case-managed teens found their case managers helpful. About three-fourths of case-managed teens who realized they had a case manager reported that overall, having a case manager helped them "A Lot" or "Some". About two-thirds of teens who had some schooling during their participation in Cal-Learn reported that their case manager helped them "A Lot" or "Some". Teens in the Full Cal-Learn group rated case managers more highly both overall regarding school-related issues. Among teens who believed they had received either childcare or transportation funding from Cal-Learn or the welfare department, a large majority said their case manager helped them gain access to these services. Responses from the second survey reinforce these findings.

VIII. CAL-LEARN SUPPORTIVE SERVICES – PROVISION AND RECEIPT

Introduction

All Cal-Learn teens enrolled in school are eligible for supportive services regardless of their research group. The Cal-Learn program offers reimbursement for three types of supportive services:

Child Care
Cal-Learn teens have access to funding for child care if they are enrolled in school. The Cal-Learn program will reimburse childcare providers only for the time the teen is actually attending school plus their travel time to or from school, and teens must attend school a minimum of 10 hours per week to receive Cal-Learn childcare funding.

Transportation
The Cal-Learn program pays for transportation required by students to get to and from their school and childcare providers.

Ancillary Expenses
Ancillary expenses paid for under Cal-Learn program rules include books, supplies, testing fees for GED exams, and caps and gowns for graduation ceremonies.

Both administrative and survey data provide information on the use of supportive services. In the administrative data, receipt of supportive services was identified by warrant payments in the county administrative data systems. The administrative data on supportive services cover the period from the teen's enrollment in Cal-Learn until her exit or the end of administrative data in November 1998, whichever comes first. Due to data collection issues, consistent administrative data regarding receipt of supportive services were not available for 407 teens from San Joaquin County. These teens comprise only 10% of the administrative sample and are excluded from the administrative results below.

The Retrospective Survey includes questions regarding the use of two types of supportive services: child care and transportation. All surveyed teens who recognized their participation in Cal-Learn were asked whether they had received financial assistance from Cal-Learn for these services. Since the interview date may occur prior to the end of administrative data or after, the time period covered by the survey may be shorter or longer than that in the administrative data; consequently, the supportive services measures from these two sources may not be strictly comparable. Teens who were re-interviewed in the second wave of the Retrospective Survey were asked the same questions regarding receipt of supportive services. As a result, for some teens, we have two responses regarding receipt. Note that this survey sample also includes some of the teens in San Joaquin County for whom administrative data were not available. Despite these differences, the results from the survey data reinforce the findings from the administrative data.

Administrative Records of the Use of Supportive Services

The administrative data include records of all payments made to teens for supportive services through November 1998.[23] Based on these records, we can derive utilization of supportive services for our administrative sample. A common element in the administrative data is the low utilization of all types of supportive services. Chapter V of *Implementation of California's Cal-Learn Demonstration Project: A Process Evaluation* discusses in greater detail some of the reasons for the low levels of utilization.

Table 8.1 shows levels of receipt of the three supportive services detailed by research group. Approximately 45% of the administrative sample received at least one supportive service during their participation in Cal-Learn. However, more case-managed teens used supportive services than non-case-managed teens. Approximately 66% of the Full Cal-Learn group and 60% of the Case Management Only group had received at least one supportive service. Receipt among non-case managed teens was much lower with only 33% of the Financial Only group and 22% of the No Treatment group receiving some service. The difference in receipt between case managed and non-case managed teens was significant at the .001 level. Although there was also a statistically significant difference in receipt between teens eligible for financial incentives and ineligible teens, this difference was smaller than the difference between teens who were eligible for case management and those who were not.

Utilization of each service was highest among teens in the Full Cal-Learn group; teens in the Case Management Only group had slightly lower utilization. Although teens in the Financial Only group used supportive services less frequently than teens in the two case managed groups, the lowest utilization rate was found among teens in the No Treatment group.

Table 8.1: Percent of Teens with Receipt of Supportive Services by Research Group

	Research Group				
Administrative Data	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Any Supportive Service	65.9	33.4	59.4	22.4	45.4
Child Care	22.3	14.2	17.8	10.6	16.3
Transportation	59.4	24.9	54.4	18.5	39.5
Ancillary Expenses	26.9	15.7	18.0	7.0	17.0
Sample Size	919	871	870	890	3550

SOURCE: County administrative data

Only 16% of all teens had child care paid for by Cal-Learn. Relative to the No Treatment group, teens eligible for financial incentives or case management or both were significantly more likely to receive childcare funding. The highest use of Cal-Learn funded child care was found among case managed teens: 22% of teens in the Full Cal-Learn group and 18% of teens in the Case Management Only group. Non-case managed teens were much less likely to receive childcare funding with only 14% of the Financial Only and 11% of the No Treatment group. In Table 8.2, all three comparisons between treated groups and the No Treatment group show significant differences in the receipt of child care.

Table 8.2: Receipt of Supportive Services: Contrasts by Group

	Research Group		Difference
Administrative Data	Full Cal-Learn	No Treatment	
Any Supportive Service	65.9	22.4	43.5***
Child Care	22.3	10.6	11.7***
Transportation	59.4	18.5	40.9***
Ancillary Expenses	26.9	7.0	19.9***
Sample Size	919	890	

	Research Group		Difference
Administrative Data	Case Mgmt Only	No Treatment	
Any Supportive Service	59.4	22.4	37.0***
Child Care	17.8	10.6	7.2***
Transportation	54.4	18.5	35.9***
Ancillary Expenses	18.0	7.0	11.0***
Sample Size	870	890	

	Research Group		Difference
Administrative Data	Financial Only	No Treatment	
Any Supportive Service	33.4	22.4	11.0***
Child Care	14.2	10.6	3.6*
Transportation	24.9	18.5	6.4**
Ancillary Expenses	15.7	7.0	9.7***
Sample Size	871	890	

SOURCE: County administrative data

NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05. For categorical variables, significance levels are based on chi-square tests.

Transportation was the most heavily used supportive service with 40% of the teens receiving transportation funding. Case managed teens were significantly more likely to receive this service. More than twice as many case managed teens (57%) received transportation funding

than did non-case managed teens (22%). Over 59% of Full Cal-Learn teens used this service; a similar percentage of Case Management Only teens (54%) received transportation funding. Receipt was much lower among teens in the Financial Only group (25%) and the No Treatment group (19%). Table 8.2 shows that teens in the Full Cal-Learn, Case Management Only, Financial Only were all significantly more likely to receive transportation funding than teens in the No Treatment group.

Although ancillary expenses were not commonly used, there were still significant differences across research groups. Only 17% of teens received ancillary expense payments as of November 1998: 23% of case managed teens and 11% of non-case managed teens. As with child care and transportation, case managed teens were significantly more likely to receive assistance with ancillary expenses. Just under 27% of Full Cal-Learn teens received payments for ancillary expenses compared to only 7% of the No Treatment group. Significant differences were also found when comparing the Case Management Only and Financial Only groups to the No Treatment group (see Table 8.2).

In sum, administrative data indicate that utilization of supportive services was quite low, ranging from just over 16% for child care to 40% for transportation. Nevertheless, there was still substantial variation across the four research groups. Case managed teens were significantly more likely to use each supportive service than non-case managed teens. The Full Cal-Learn teens were most likely to use each service. There were also statistically significant differences between teens subject to financial incentives and those who were not; however, this difference was smaller than the difference between teens eligible for case management and those who were not.

Survey Reports of the Use of Supportive Services

In the Retrospective Survey, teens who believed they were in Cal-Learn were asked about their receipt of two types of supportive services. Teens were asked whether they had ever received child care paid for by Cal-Learn or the welfare department and whether they had ever received bus passes or money for transportation. The teens were not asked about ancillary expenses.

Receipt of supportive services is unlikely among teens who did not realize that they were in Cal-Learn. Consequently, all teens who did not believe they were in Cal-Learn, 19% of the survey sample, were included in the sample used here, but were assumed to have received no supportive services.

Teens who recognized their participation in Cal-Learn were then asked the following questions regarding receipt of child care and transportation:

> *When you were in Cal-Learn, did you get any child care that was paid for by Cal-Learn or the welfare department?*
>
> *When you were in Cal-Learn, did you get any bus passes or money for transportation?*

Approximately half of surveyed teens reported receiving at least one supportive service either by their first or, where available, their second interview. A majority of case managed teens, just over 64%, reported receipt compared to only 36% of non-case managed teens. This difference was significant at the .001 level. As in the administrative data, the Full Cal-Learn teens had the highest receipt (67%) followed by the Case Management Only teens (60%). The Financial Only group had lower usage (39%) than the two case managed groups, but nevertheless reported higher usage than the No Treatment group (33%).

Table 8.3: Percent of Teens Reporting Receipt of Supportive Services by Research Group

	Research Group				
Self-Report	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Any Supportive Service	67.3	39.0	60.2	33.0	49.9
Child Care	36.8	23.8	26.9	21.7	27.4
Transportation	61.6	34.7	55.2	27.0	44.6
Sample Size	554	533	520	549	2156

SOURCE: Retrospective Survey Wave I & II

Although reported receipt of supportive services is higher in the survey data, we find the same pattern found in the administrative data. Fifty percent of teens reported that they received either childcare or transportation funding at either the first or second wave of the Retrospective Survey. Table 8.3 shows that the use of child care was substantially lower than that of transportation: 27% of the survey sample reported receiving child care and 45% reported receiving transportation funding.

Receipt of child care differed substantially across research groups and treatment conditions. Case managed teens (32%) were significantly more likely to use this service than non-case managed teens (23%). Full Cal-Learn teens reported the highest use with 37% of the teens reporting receipt.

Although usage was higher for transportation, the pattern across research groups is similar. Nearly 59% of the case managed teens reported using this service compared to less than 31% of non-case managed teens. Again, the difference was significant at the .001 level. The highest usage was among the Full Cal-Learn group (62%). By research group, teens in the Full Cal-Learn (62%), Case Management Only (55%), and Financial Only groups (35%) were all more likely to report usage than teens in the No Treatment group (27%).

Table 8.4 demonstrates that teens in Full Cal-Learn group were significantly more likely to report receiving each type of supportive service than teens in the No Treatment group. This is also true for teens in the Case Management Only group. While teens in the Financial Only group were also more likely to receive childcare and transportation funding than teens in the No Treatment group, the difference for child care was not statistically significant.

Table 8.4: Reported Receipt of Supportive Services: Contrasts by Group

Self-Report	Research Group: Full Cal-Learn	Research Group: No Treatment	Difference
Any Supportive Service	67.3	33.0	34.3***
Child Care	36.8	21.7	15.1***
Transportation	61.6	27.0	34.6***
Sample Size	554	549	

Self-Report	Research Group: Case Mgmt Only	Research Group: No Treatment	Difference
Any Supportive Service	60.2	33.0	27.2***
Child Care	26.9	21.7	5.2*
Transportation	55.2	27.0	28.2***
Sample Size	520	549	

Self-Report	Research Group: Financial Only	Research Group: No Treatment	Difference
Any Supportive Service	39.0	33.0	6.0*
Child Care	23.8	21.7	2.1
Transportation	34.7	27.0	7.7**
Sample Size	533	549	

SOURCE: Retrospective Survey Wave I & II
NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05. For categorical variables, significance levels are based on chi-square tests.

The survey results confirm those from the administrative data. Transportation services were used much more often than other services. The case managed teens were significantly more likely than teens without case management to take advantage of the supportive services available to them. The Full Cal-Learn group was the most likely of all groups to use each supportive service.

Chapter Summary: Cal-Learn Supportive Services – Provision and Receipt

- Administrative data indicate that use of all supportive services – child care, transportation, and ancillary expenses related to education – was low. About 45% of the participants had at least one recorded expenditure for a supportive service prior to the end of the administrative data collection period (November 1998).

- Transportation was the most frequently used service paid for by the Cal-Learn program with 40% of the teens taking advantage of available transportation money and bus passes.

Only 16% of teens received childcare funding and 17% received money for ancillary expenses.

- Case managed teens were significantly more likely to receive each supportive service than non-case managed teens. In all cases, the Full Cal-Learn group was most likely to receive such assistance.

- Data from the first and second wave of the Retrospective Survey confirm the administrative findings. Supportive service usage was low. Transportation funding was more common than child care. Case managed teens, particularly teens in the Full Cal-Learn group, were more likely to use supportive services than non-case managed teens.

PART FOUR

LIFE EXPERIENCES OF CAL-LEARN TEENS

IX. LIFE EXPERIENCES OF CAL-LEARN TEENS

Introduction

In the previous three chapters, we explored teens' experiences with and evaluations of the treatments and services associated with the Cal-Learn program. The Retrospective Survey allows us to broaden our focus and to examine other aspects of the teens' life experiences apart from their experiences in the Cal-Learn program.

In this chapter, we examine the characteristics of our Cal-Learn survey sample. In particular, we focus on their:

1) educational experiences
2) educational aspirations and family support for educational goals
3) long-term goals and expectations
4) social support and material hardship
5) childbearing, relationships, sex, and contraceptive use
6) children's health, and
7) child care use

These characteristics describe the 2156 teens with at least six months of exposure to the Cal-Learn program and may reflect teens' responses at either the first or second wave of the Retrospective Survey. Some of these questions ask the teens to recall back to the time they were enrolled in Cal-Learn or earlier, but most refer to the time of the interview.

Although the intent of this chapter is descriptive rather than comparative, for questions regarding social support, childbearing, and child care use, we compare the responses of case managed and non-case managed teens. In addition, contraceptive use and childbearing are compared across school status and marital status.

Educational Experiences

Many of the interviewed teens experienced educational difficulties both before and during their participation in Cal-Learn. These difficulties include dropping out of school, repeating grades, and disciplinary issues. Many teens enrolled in alternative programs within and outside of regular schools. Often teens also attended GED programs.

Only 63% of Cal-Learn teens were attending school at the time of their Cal-Learn entry. This relatively low level of school enrollment was accompanied by other school-related difficulties. Nearly 29% of the survey sample reported having repeated at least one grade during their lifetime, and 54% reported having dropped out of school at least once. A similar percentage (55%) reported being expelled or suspended from school at least once. Approximately half of these teens had been expelled or suspended multiple times.

Since many teens were not enrolled in regular school programs, they did not always pursue diplomas in a traditional high school setting. As noted in Chapter III, GEDs play a prominent role in successful completion of the Cal-Learn program.

At both the first and second wave interviews, teens were asked whether they were currently attending school or a GED program. Teens who were in school or in an independent study program were asked about the type of program they attended:

> *IF IN REGULAR SCHOOL. What kind of school are you attending? Is it a regular comprehensive jr high or high school, a continuation school, an adult education program, an alternative school, or some other kind of school/program?*
>
> *IF IN INDEPENDENT STUDY. What kind of school is sponsoring your independent study program? Is it a regular comprehensive jr high or high school, a continuation school, an adult education program, an alternative school, or some other kind of school/program?*

In this section, we focus only on teens who reported that they were still in school or in a GED program at the time of their most recent interview. Table 9.1 shows the distribution of types of schools for each of the four research groups for teens age 17 and under and for teens age 18 and over.

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Table 9.1: Type of Educational Program by Research Group

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Age 17 & Under					
Type of Educational Program					
Regular Junior High or High School	25.0	46.8	45.5	39.3	38.9
Continuation School	42.6	25.8	22.7	27.9	30.0
Adult Education	11.8	4.8	4.5	4.9	6.6
Alternative School	10.3	11.3	13.6	9.8	11.3
College or University	1.5	0.0	0.0	0.0	0.4
Some Other Kind of School	1.5	3.2	4.5	3.3	3.1
In a GED Program & In School	2.9	4.8	9.1	13.1	7.4
In a GED Program & Not in School	4.4	3.2	0.0	1.6	2.3
Sample Size	68	62	66	61	257
Age 18 & Over					
Type of Educational Program					
Regular Junior High or High School	10.3	14.8	10.1	15.0	12.5
Continuation School	14.5	13.9	12.8	9.3	12.7
Adult Education	23.1	20.9	22.0	15.9	20.5
Alternative School	1.7	6.1	7.3	4.7	4.9
College or University	3.4	7.9	4.6	5.6	5.4
Some Other Kind of School	0.9	1.7	5.5	5.6	3.3
In a GED Program & In School	24.8	15.7	20.2	16.8	19.4
In a GED Program & Not in School	21.4	19.1	17.4	27.1	21.2
Sample Size	117	115	109	107	448

SOURCE: Retrospective Survey Wave I & II

NOTE: Sample consists of teens attending school or a GED program at most recent interview.

Teens age 17 and under typically attend "regular junior high or high school" (39%) or continuation schools (30%), with a smaller number (11%) in an "alternative school". There is no difference in subsequent graduation rates associated with having attended a continuation high school as compared to a regular junior high or high school at Wave I. Full Cal-Learn teens are more likely to be in continuation schools and less likely to be in regular schools than are teens in other research groups.

Forty-one percent of the teens age 18 and over were in GED programs, evenly divided among those who described their program as "in school" and those who did not. Of those not in GED programs, one-quarter (25%) were in high school, split equally between regular and continuation schools, while 20% were in adult education programs. Since none of the teens in this table have graduated, the 5% who reported that they were attending college or university are presumably in remedial or adult education programs at community colleges.

Educational Aspirations and Family Support for Educational Goals

Despite some educational difficulties, most teens reported that they liked school. They also had high aspirations for their educational attainment, as did their families. Eighty-two percent of teens reported that they liked school. Of teens who reported that they liked school, more than half (54%) reported that they liked school "A Lot".

Given that most teens enjoyed school, we might expect that they were either in the process of furthering their education or had some plans to do so in the future. Teens who had not already graduated high school by the first interview were asked about possible educational attainment:

> *How far do you think you'll actually go in school? Do you think you won't finish high school, you'll finish high school or get a GED, but go no further, or you'll go on to college?*

Almost all teens (97%) reported that they thought they would at least finish high school. Most teens (60%) planned to go to college as well.

The teens' educational goals are mirrored in their family support. In the first survey, 73% of teens who had not already graduated said that their families urged them to finish high school "A Lot". Of teens whose families urged them to finish high school, 50% reported that their families urged them to go to college "A Lot", while another 38% received "Some" or "A Little" encouragement for college.

Teens and their families shared a common desire to have the teens finish high school, and in many cases, to attend college as well.

Long-Term Goals and Expectations

In addition to questions regarding their educational aspirations, surveyed teens were also asked about their long-term goals and expectations in terms of school and work. Teens were asked the following two questions:

> *Looking ahead five years from now, what would you MOST like to be doing? Would you like to be working at a job, going to school, staying at home with the children, or something else?*
>
> *Again, thinking ahead five years from now, what do you think you will actually be doing? Do you think you will be working at a job, going to school, staying at home with children, or something else?*

All teens regardless of their educational attainment were asked what they would most like to be doing five years in the future. Most teens responded that they would either like to be in school or working, or both. Two-thirds of the teens reported that they'd like to be working five years from

now. Thirteen percent said they would like to be going to school. A similar percentage (13%) volunteered that they would like to be working and going to school simultaneously.

All teens were also asked what they think they actually will be doing five years in the future. The answers were similar to those regarding what they would like to be doing in five years. Three-fourths of the teens reported that they would probably be working at a job five years from now. Ten percent reported that they expected to be in school. Another ten percent volunteered that they would probably be working and attending school.

Overall, most teens reported both that they would like and expect to be working five years from now. A minority of teens felt that they would be going to school five years in the future. A similar number of teens thought they would be working and going to school simultaneously.

Social Support and Material Hardship

As mentioned above, teens felt that their families were quite supportive of their educational goals. In the first wave of the Retrospective Survey, teens were also asked about other types of social support provided by their families and others. In particular, they were asked whether they had anyone they could turn to for practical help and for emotional support. Teens were then asked if they or their children had experienced any material hardship.

Practical Help

Teens were asked the following three questions regarding practical help:

> *How many people can you ask for help with practical things if you need it? By practical things, I mean things like help around the house, (with your child(ren)), getting rides to places you need to go, and things like that?*
>
> *How often do you get help with practical things like help around the house, (with your child(ren)), getting rides to places you need to go, and things like that. Would you say often, sometimes, rarely, or never?*
>
> *How do you feel about the amount of practical help you get? Would you say you get all the help you need, or would you like to get more help with practical things?*

Of all surveyed teens, nearly two-thirds (63%) felt they had adequate practical help; however, more than a third of teens (37%) felt they could use more help. When probed further, it seems that teens who needed more help either did not have someone to turn to for practical help or did not receive practical help often enough.

Most teens (95%) felt they had at least one person they could turn to for practical help. Nearly as many (82%) felt they had more than one person available to them. Of teens who reported they had at least one person to turn to for practical help, many teens reported that they got practical help on a regular basis. Eighty five percent of those teens reported they received help either

"Often" (50%) or "Sometimes" (35%). However, the remaining 15% of teens felt that they got practical help only "Rarely" or "Never".

There was a significant difference between research groups in how often teens received practical help. More case managed teens reported that they received help "Often" (56%) than teens in the non-case managed groups (50%). However, there were no significant differences in the number of people teens could turn to for practical help nor in their satisfaction level with practical help between teens who were case managed and those who were not.

Emotional Support

Similar questions were asked regarding emotional support:

> *How many people do you feel you can count on to talk with you about personal problems and to provide you with emotional support?*
>
> *How do you feel about the amount of emotional support you get? Would you say you get all the emotional support you need, or would you like to get more emotional support?*

The results were slightly less encouraging when the teens were asked about emotional support. Approximately 10% of all teens felt they had no one they could turn to for emotional support. Nearly 90% of teens reported that they had at least one person they could turn to for emotional support, while two-thirds felt they had more than one person they could turn to for support. However, only slightly more than half of all surveyed teens (57%) felt that they had all the emotional support they needed. The remaining 43% felt they needed more emotional support.

Case managed teens were significantly more likely to report that they had all the emotional support they needed (61%) relative to the non-case managed teens (55%). There was no difference between case managed and non-case managed teens in the number of people they could turn to for emotional support,

Hunger and Financial Hardship

In both waves of the Retrospective Survey, teens were asked whether they or their children ever went hungry during the past year and why. Thirteen percent of teens indicated that they or their children had gone hungry during the previous year. Of these teens, a large majority (76%) indicated that lack of money was the reason. Sanctioned teens were slightly more likely to report hunger due to financial hardship while teens who received a bonus were less likely to report experiencing this hardship. While financial incentives are associated with the teens and their children experiencing hunger due to financial hardship, it is not possible to determine whether the sanctions caused the hardship or whether teens with financial difficulties are more likely to incur a sanction.

Summary of Social Support and Material Hardship

Although most teens felt they did have some social support, there were some teens who felt they had no practical help or emotional support. Even among teens who responded that they had someone they could turn to for practical help and emotional support, a substantial number of teens said they could use more assistance in both of these areas. A small number of teens reported that they or their children had gone hungry at some point during the previous year and that financial hardship was the primary reason.

Childbearing, Relationships, Sex, and Contraceptive Use

When they entered Cal-Learn, most teens in the evaluation had only one child (64%). One quarter were pregnant and had no children, and another 15% were pregnant with a second or third child. Ten percent had two or more children at entry.

During the period between entering Cal-Learn and their second interview (typically a little more than two years), nearly half (47%) of the re-interviewed teens gave birth, and 7% had two more children. The majority of these additional children had already been conceived when their mothers entered Cal-Learn; excluding these cases, we find that by the second interview about 20% of teens had become newly pregnant and given birth since entering Cal-Learn. A further 8% reported being pregnant at the second interview. These two groups together are referred to as having conceived after entering Cal-Learn. Many other teens might have conceived and had their pregnancies terminated, or might have been pregnant at their second interview and not reported it, but those conceptions are not recorded in the data. Using this accounting method, 28% of teens conceived after entering Cal-Learn.

A very small number (1%) of teens were living with fewer of their children at the second interview than at the first interview, suggesting that the child(ren) had gone to live somewhere else or the teen had left the home where the children were living. The surveys do not indicate the reasons for these separations.

The probability of a teen's having conceived or given birth since entering Cal-Learn was virtually identical in the four research groups. There was no effect on fertility associated either with Full Cal-Learn or with case management generally. However, a teen's chances of additional births did vary by other characteristics, including the marital/relationship status of the teen, her use of contraception, and her schooling status.

By the second interview, 11% of the teens were married. At each of the two survey waves, about half of the teens had steady boyfriends. About 40% at each wave had neither a boyfriend nor husband. Grouping teens by their relationship status at the first interview and their childbearing or pregnancy at the second interview, we find 34% of teens who were married at first interview, 31% of teens with steady boyfriends, and 23% of teens without steady boyfriends at first interview had conceived an additional child by the second interview. Teens in the last group who had conceived by the second interview might have acquired a husband or steady boyfriend

by then as well. It appears that being married or having a steady boyfriend puts teens at higher risk of subsequent births than not having a steady boyfriend.

Teens were asked whether they had had sexual intercourse during the previous three months and were also asked a series of questions about their contraceptive use. Based on these questions teens are classified into four groups, and their subsequent pregnancy rates are compared. The groups are: those using a hormonal method of birth control (Depo Provera, the Pill, or the Norplant implant); those who had had sex in the past three months and used a condom "all the time"; those who had not had sex in the past three months (and were not using a hormonal method); and everyone else. Teens in the last group are considered at the highest risk of becoming pregnant because they were sexually active but were using neither a hormonal contraceptive method nor condoms "all the time". At the first interview, 35% of teens were using a hormonal method, 11%, were sexually active and used a condom all the time, 31% were unprotected but sexually abstinent in the previous three months, and 23% were in the group at highest risk of pregnancy. Younger teens (those under 18) were somewhat more likely to be sexually abstinent (33%) than older teens (29%) and also more likely to be using a hormonal method (38% compared to 33%). Consequently, younger teens were thus at lower risk of pregnancy (19%) relative to older teens (25%).

Teens' chances of reporting conception at the second interview were strongly related to their reported contraception and sexual activity at the first interview. Of those who reported using a hormonal method at the first interview, 19% became pregnant by the second interview. Of those who reported that they had sex recently and always used condoms, 27% became pregnant by the second interview, as did 28% of those who reported that they had not had sex in the three months prior to the first interview. Of teens who reported that they were sexually active and using no contraception at the first interview, 44% conceived again. Thus, the probability of conception was more than twice as great among those in the group at highest risk of pregnancy, as for those using a hormonal contraceptive method.

Teens who were enrolled in school or college were substantially more likely to protect themselves against pregnancy and less likely to actually become pregnant than non-enrolled teens (whether graduates or dropouts). Being enrolled in school or college is strongly associated with less high-risk behavior and with fewer subsequent pregnancies. Table 9.2 shows the distributions among the four categories of pregnancy risk-taking behavior, as well as subsequent pregnancy rates, for high-school graduates who at the first interview were in college or not in college, and for non-graduates who were still in school or who had dropped out. Among teens age 18 and over, 29% of dropouts were in the group at highest risk of pregnancy compared to 15% of those in college. Graduates not in college were about as likely as dropouts to be in the group at highest risk of pregnancy (26%). Those still in high school had a moderate risk of pregnancy (20%). Among younger teens (age 17 and under), 26% of dropouts were at high pregnancy risk, compared to 17% of those in school. Conceptions by Wave II reflected the higher-risk behavior of the non-enrolled teens: one-quarter (25%) of dropouts age at least 18 and 23% of dropouts under age 18 became pregnant, compared to 17% of those enrolled in college and 17% of those enrolled in school. Among the 18-and-over group, the contrasts in high-risk behavior and conceptions between enrolled and non-enrolled teens are statistically significant.

Table 9.2: Contraceptive Use and New Pregnancy* by School Status and Age

Self-Report	School Status at Wave I: Graduated & In College	Graduated & Not in College	Enrolled in School, Not Graduated	Dropped Out
Age 17 & Under				
Contraceptive Use				
Using a Hormonal Method	--	60.0	38.4	30.4
Not Using a Hormonal Method				
Abstinent	--	20.0	34.7	34.8
Had Sex & Always Used Condoms	--	10.0	9.8	8.9
Had Sex & Not Protected	--	10.0	17.0	25.9
New Pregnancy*				
Became pregnant between Wave I & Wave II	--	18.8	16.6	22.6
Sample Size	4	20	528	158
Age 18 & Over				
Contraceptive Use				
Using a Hormonal Method	43.6	36.6	38.1	29.3
Not Using a Hormonal Method				
Abstinent	32.7	23.7	31.7	28.5
Had Sex & Always Used Condoms	9.1	14.0	9.8	12.8
Had Sex & Not Protected	14.5	25.8	20.4	29.4
New Pregnancy*				
Became pregnant between Wave I & Wave II	17.0	19.9	17.4	24.6
Sample Size	55	186	407	632

Table 9.3 Contraceptive Use and Pregnancy by Research Group

Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment
Contraceptive Use				
Using a Hormonal Method	34.3	31.9	37.6	37.3
Not Using a Hormonal Method				
Abstinent	27.8	32.3	28.7	31.4
Had Sex & Always Used Condoms	12.3	10.2	11.7	11.3
Had Sex & Not Protected	25.6	25.6	22.0	20.1
New Pregnancy*				
Became Pregnant between Wave I & Wave II	22.1	23.4	21.9	21.7
Sample Size	551	527	513	542

SOURCE: Retrospective Survey Wave I & II

NOTE: Sexual behavior and contraceptive use are as reported at the Wave I interview and refer to behavior during the previous three months. "New pregnancy" refers to pregnancies reported at the Wave 2 survey and births reported as having occurred since the Wave 1 interview, but excluding pregnancies that were reported at the Wave 1 interview.

As mentioned in earlier chapters, the Full Cal-Learn treatment increases the probability that teens will stay in school and graduate, and reduces their chances of dropping out. While school enrollment and graduation are associated with more contraceptive use and fewer pregnancies, the Full Cal-Learn treatment itself has no impact on contraceptive behavior and sexual activity (Table 9.3).

Children's Health

Surveyed teens were asked about their children's general health and health care. Most teens reported that their children were healthy and had received medical care recently.

Nearly 90% of teens reported that their children's health was either "Excellent" or "Very Good" at the first interview; a similar percentage reported that their children had "Excellent" or "Very Good" health at the second interview. Very few teens, 4% in at the first interview and 3% at the second interview, reported that their children were in "Fair" or "Poor" health.

Teens were also asked whether their children had any health problems that limit the amount or kind of things the children can do. Five percent of teens in the first wave and 6% of teens in the second wave of the Retrospective Survey reported that their children had health limitations.

In the first wave of the Retrospective Survey, 56% of teens reported that their children had received medical care in the past month and another 31% in the last three months; 14% did not report any medical care for their children in the past three months. The corresponding percentages in the second wave were 42% having received medical care in the previous month and an additional 34% having received it in the previous three months. There were no differences in children's health status or in their use of health care associated with assignment to a case managed research group.

Use of Child Care

As noted in Chapter VIII, the use of child care paid for by the Cal-Learn program or the welfare department was quite low. Only 28% of teens reported receiving childcare funding from Cal-Learn or the welfare department in the first or second wave of the Retrospective Survey.

In the first wave of the survey, a series of questions were asked regarding the teens' use of child care. Some questions were asked of all teens in the survey. Other questions focused only on teens who reported that they were either in school or in a GED program.

Child Care Use Among All Surveyed Teens

Teens were asked about their use of various types of child care – both institutional and non-institutional – and the reasons for their choices.

Teens were first asked about their use of institutional daycare:

During a typical week, does INDEX CHILD spend any time in (a nursery school, pre-school, Head Start program,) (a before or after school program,) a day care center or a family day care home. (IF NECESSARY: By a family day care home we mean a private home where someone takes care of a small group of children).

Few teens used institutional daycare. Only 13% of teens reported using institutional daycare. The mean and median number of daycare hours at institutional daycare for this group was 25 hours per week. There were no differences between case managed teens and non-case managed teens in either the probability of using institutional daycare or the number of hours used.[24]

Since many teens did not use institutional child care or did not use institutional child care exclusively, teens were also asked about non-institutional care. All teens were asked how often, if at all, their children were in some form of non-institutional daycare – generally, either a babysitter or a family member.

(Not counting the place(s) you just told me about,) During a typical week, how often does INDEX CHILD stay with someone else like a family member or a baby sitter? Would you say most days during a typical week, a few days, only a day or two, or don't you usually leave INDEX CHILD with a sitter during the week?

Nearly half (47%) of the teens reported that they did not usually leave their children with anyone. Of the remaining teens, 22% reported that they left their children with a sitter or family member for "Only a Day or Two" in a typical week. Eight percent reported that the index child was babysat for "A Few Days" in a week. The final 22% reported that the index child stayed with a sitter or family member "Most days". Overall, the teens reported that their children spent an average of 18 hours per week in this type of child care. The median number of hours was similar at 15 hours per week. There were no differences between case managed teens and non-case managed in either the probability of using non-institutional child care or the number of hours used.

More than half of the teens responded that the non-institutional daycare provider was a person who lived with the teen. Generally, this is the teen's mother or another relative of the teen such as her father, sister, aunt, or grandmother.

Teens who responded that they did not use institutional or non-institutional child care on a regular basis were probed for the reasons they refused to use child care. The primary reason given was that teens felt they didn't need child care because they were always at home and always with the child (40%). The next most common response was that the teens refused to leave their children with child care providers either because they did not feel confident about the quality of child care or because they did not want to leave their children with people they did not know (30%). In some cases, teens either could not find a childcare provider or did not have access to transportation to get to childcare providers (10%). Other answers included: family members help (7%), child wouldn't like it or would not behave (6%), child is too young (5%), and the child's medical problems (1%).

Child Care Use Among Teens Attending Educational Programs

Since teens are only eligible for Cal-Learn funding for child care if they are pursuing an education, we explore the use of child care further by focusing only on teens who are enrolled in school or in a GED program.

At their first interview, teens who were in school or a GED program were asked about the childcare arrangements used while they are studying or in school. Specifically, these teens were asked who usually takes care of the index child during the time they are in school or during the time they are studying.

Nearly half of these teens (47%) reported that someone they lived with took care of the index child while they were studying or in school. Another 34% reported that someone else, who did not live with the teen, took care of the child. Nearly a fifth of teens (18%) reported that they took care of the child while studying. There were no differences between case managed teens and non-case managed teens in either the probability of using non-institutional daycare or the number of hours used.

Teens were then asked about their relationship to the index child's caregiver – the person who cares for the child while the teen is in school or studying. Over a third (36%) reported that their mother provided child care. The next largest group (26%) reported that another relative babysat the child. Generally this relative was the teen's father, sister, aunt, or grandmother. Relatively few teens (16%) reported that they used organized group care. The remaining teens reported that husbands or boyfriends (8%), the child's father (2%), non-relative babysitters (9%), or someone/someplace else (4%), provided daycare.

A majority of these teens were satisfied with their childcare arrangements. Overall, they trusted their childcare arrangements, found it easy to access child care provided outside the home, and felt they had reliable providers.

Most teens reported that they did not have any substantial concerns about their children's safety while in child care. The majority (62%) were "Not at All" concerned, and 16% were "A Little" concerned . About one-fifth of these teens worried about their children's safety "Some" (11%) or "A Lot" (11%).

More than half of the teens (57%) reported that it was "Very Easy" to get the index child to child care located outside the home and approximately 26% found it "Somewhat Easy". Less than one-fifth of teens found it "Not Too Easy" (13%) or "Not At All Easy" (5%).

When asked about the reliability of their childcare providers, most teens found that they could count on the person "All of the Time" (55%) or "Most of the Time" (29%). Less than one-fifth of teens reported that they could only count on that person "Some of the Time" (14%) or "Only Rarely" (3%).

Chapter Summary: Life Experiences of Cal-Learn Teens

- Over their lifetimes, a majority of Cal-Learn teens experienced educational difficulties which included repeating grades, dropping out, and disciplinary action. However, most teens reported that they enjoyed school and planned to earn at least a high school diploma or equivalent and a majority also planned to attend college. Families of Cal-Learn teens were supportive of educational goals. In the next five years, most teens expected that they would either be working or going to school, or both.

- A small number of teens reported that they had no source of practical help (5%) and emotional support (10%). Additional teens felt they needed more help and support. Some teens (13%) reported that they or their children had gone hungry during the past year; generally, lack of money was the reason.

- Teens who were case managed were significantly more likely to report that they received practical help "Often" and also significantly more likely to report that they had all the emotional support they needed than teens who were not case managed.

- Approximately 28% of teens conceived after entering Cal-Learn. Teens' chances of additional births were related to marital status: married teens were at a higher risk of subsequent births.

- School status is strongly associated with the risk of pregnancy and childbearing. Dropouts have a much higher risk of pregnancy than other teens and were more likely to conceive between the first and second interview. Being currently enrolled in school or college was associated with lower risks of pregnancy.

- Although the Full Cal-Learn treatment increased the likelihood that teens graduated or stayed in school and those events were associated with a lower risk of pregnancy, there is no evidence that the treatment affects contraceptive behavior and sexual activity.

- Nearly 90% of teens reported that their children were in "Excellent" or "Very Good" health and nearly 95% reported that their children did not have any health limitations. A substantial majority of children had reportedly received medical care within the last three months.

- Among all Cal-Learn teens, use of institutional daycare was quite low (13%). Among teens who were in school or a GED program, 16% used institutional child care while they were in school or studying. Non-institutional daycare was common. This type of daycare often took place at the teen's home and the primary babysitter was a relative, often the teen's mother. Approximately 63% of teens who were in school or a GED program used non-institutional care and 18% took care of the children themselves while studying.

- When asked about satisfaction with childcare arrangements, teens who were in school or a GED program generally responded positively. Most teens were either not substantially

concerned about their children's safety at daycare or only worried a little (78%). Most of the teens who had child care provided outside the home found it very or somewhat easy to access this care (83%). A large majority of these teens (84%) reported that they could rely on their childcare provider either "All of the Time" or "Most of the Time".

PART FIVE

CONCLUSION

X. CONCLUSION

Cal-Learn is intended to increase graduation rates among teen parents through a mixture of financial incentives and case management services. The designers of the program hoped it would have other benefits as well, including long-term economic self-sufficiency and reduced welfare use, reductions in childbearing rates, and benefits to the health and well-being of program participants and their children.

In the evaluation, teen parents who would normally have been eligible for the regular Cal-Learn program were randomly assigned to one of four research groups: Full Cal-Learn, Financial Incentives Only, Case Management Only and, as controls, a No Treatment group. Teens in all four groups were entitled to supportive services such as funding for transportation to school and child care while enrolled in school. Most of the teen parents who enrolled in Cal-Learn between July 1995 and June 1997 in San Bernardino, San Joaquin, and Alameda counties, and a random subset of clients in Los Angeles, participated in the evaluation.

The evaluation yielded useful conclusions about the impact of Cal-Learn on school progress and school completion. The study also provides a wealth of information about how the program was implemented and how participants experienced and perceived it. In this final chapter we discuss the data from the impact evaluation in conjunction with the findings of the implementation (process) study that was published in 1998.[25] We summarize the findings of the impact and process studies and provide recommendations for local program implementation, state and county policy, and future research directions.

Key Findings

- **The Full Cal-Learn program substantially increased graduations compared to No Treatment. The program achieved this by increasing the rates at which participants earned GEDs, but not the rates at which they earned high school diplomas (HSDs). Even so, over half of Full Cal-Learn teens have not graduated by their 20th birthday.**

The survey data indicate that among teens age 18 and over, 32% of Full Cal-Learn teens have graduated compared to 24% of the No Treatment teens. By age 20, an estimated 47% of the Full Cal-Learn group and 33% of the No Treatment teens have graduated. The impact on graduations is concentrated exclusively in GEDs rather than high school diplomas.

To place these results in the context of other teen parenting programs, the evaluation of the LEAP program in Ohio provides a useful comparison to this study.[26] That evaluation found that LEAP raised rates of GED acquisition among their sample of teens of all ages by 2.7 percentage points and HSD rates by 0.6 percentage points. Neither of these differences were statistically significant. In the Cal-Learn evaluation, for teens of all ages, survey data indicate that the Full Cal-Learn treatment was associated with a statistically significant 6.1 percentage point gain in GEDs, while Department of Education data indicate a statistically significant 4 percentage point gain in GEDs.[27]

- **The Full Cal-Learn program is more effective than either of its constituent treatments alone.**

Cal-Learn case management and financial incentives operate synergistically to motivate and enable teens to graduate instead of dropping out. Case managers educate teens about their responsibilities and opportunities within the program, and incentives and sanctions motivate clients to follow the advice of their case managers. The Full Cal-Learn effect was about equal to the sum of the effects of the two single-treatment groups. The relatively weak impact of Case Management Only was due in part to the fact that about one-quarter of the teens assigned to that research group had not had recent contact with a case manager. In contrast, about nine out of ten teens in the Full Cal-Learn program had recent contact with a case manager. Those who had case manager contact graduated at significantly higher rates than those who did not.

- **Most teens who were enrolled in the Full Cal-Learn research group understood the details of the Cal-Learn program and participated in it. However, teens are considerably more aware of bonuses than of sanctions.**

The program's success in "getting the word out" is encouraging. More than three-fourths of teens in the Full Cal-Learn research group knew that they were eligible for case management and that they could receive bonuses or sanctions. Almost nine out of ten had some direct personal contact (face-to-face or by telephone) with a case manager, with contacts occurring at the rate of about 1.4 per month.

Eighty-five percent of Full Cal-Learn teens knew they were eligible for a bonus or a sanction related to their educational progress, and more than two-thirds of them actually received a bonus or a sanction while in the evaluation. However, teens were much more aware of bonuses than of sanctions. Almost all teens who had received a progress or graduation bonus knew it (i.e., reported the fact when asked). However, only 74% of Full Cal-Learn teens even knew they were eligible for sanctions, and only 64% of teens who had been sanctioned responded in the affirmative when asked if they had been sanctioned, suggesting that they were unaware of the sanction (or that they did not want to tell an interviewer that they had been sanctioned).

- **Most teens who were enrolled in the Full Cal-Learn research group reported that they found the case management services and the financial incentives useful and helpful.**

Most Full Cal-Learn teens (80%) who knew they had case managers said that their case managers helped "A Lot" or "Some" with things in general. Teens who had case managers were more likely than teens without case managers to report that they felt adequately supported in their lives.

A majority of all teens felt that both bonuses and sanctions were useful motivators and were fair. Nearly two-thirds thought bonuses "Very Useful" in helping them stay in school, and another quarter thought them "Somewhat Useful". Most of those who thought they could get a bonus said it was "Very Important" to them for staying in school. Although there was less support for sanctions than for bonuses, a majority still thought sanctions were "Very" or "Somewhat" useful. Teens were more likely to say bonuses and sanctions were "Very Important" if they had actually

received a bonus and if they had *not* received a sanction.

- **There were no impacts of Full Cal-Learn on participants' subsequent childbearing rates, according to the survey data.**

The proportion of teens who gave birth between the Wave I and Wave II surveys did not vary significantly across research groups.

- **Within the period available to observe teens' economic outcomes after they exit Cal-Learn, no significant benefits of Cal-Learn in terms of more employment, higher earnings, and reduced use of welfare can yet be observed. However, a teen's chances of employment and her wages are substantially higher if she has an HSD or GED than if she drops out -- and Cal-Learn does significantly increase graduation rates.**

The only evidence of impacts on long-term self-sufficiency are the effects on graduations. The higher GED rates among Cal-Learn teens might generate longer-term benefits; teens who graduate with a GED or HSD both have higher (and similar) wages and employment rates than non-graduates.

Graduates are more than twice as likely to be employed at ages 18 and 19 and about 40% more likely to be employed after age 20 than non-graduates, and working graduates typically earn more than working non-graduates. Within our short observation window, the economic benefits of graduation translated into small and non-significant gains in employment rates for the Full Cal-Learn group over the No Treatment group.

The projected economic value for this population of teens of earning a GED is unknown. As discussed above, other research suggests that low-income women with GEDs fare better economically than dropouts but not as well as high-school graduates.

In summary, whether evaluated in terms of its impacts on school retention and graduations or in terms of the reported experiences of participants, the fundamental structure of the Cal-Learn program – case management, in conjunction with bonuses and sanctions – appears to work well and should be continued. The recommendations that follow suggest strategies to further strengthen the program and to assess its long-term impacts.

Recommendations for Policy and Research

The recommendations that follow fall into five general areas. The first area focuses on aspects of program implementation that need strengthening; under this heading we offer three specific recommendations. The second explores strategies to improve graduation rates still further, for which we offer five recommendations. The third broad area is a discussion of other educational strategies to assist the higher-achieving and the severely disadvantaged Cal-Learn clients. Fourth, we briefly discuss repeat childbearing among Cal-Learn teens. Finally, we outline areas for research that are related to these domains.

Area 1: Aspects of Program Implementation

Although the evaluation indicates that the Cal-Learn program is generally operating as intended, several changes may be needed to assure its continued successful implementation. Specifically:

- **Procedures and training in CalWORKs offices should be designed to ensure that eligible teens are identified and enrolled in Cal-Learn rather than in CalWORKs.**

CalWORKs offices, information systems and workload should be structured to facilitate the identification and enrollment of Cal-Learn teens. Staff may also need training to recognize when a client is eligible for Cal-Learn and to enroll her in the program. The evaluation did not try to assess the extent to which Cal-Learn eligible teens were placed in Cal-Learn rather than in regular AFDC or, now, CalWORKs. However, the dramatic decline in the Cal-Learn caseload between January 1996 and September 1999 invites speculation that welfare staff, perhaps in the press of adapting to CalWORKs policies, may have failed to enroll some eligible teens into Cal-Learn. The Cal-Learn caseload fell by 45% during that period, while the overall welfare caseload dropped less sharply (36%), and the teen birth rate in California dropped less sharply still (28%). Cal-Learn now constitutes 2% of the total welfare caseload, while in January 1996 it was 2.3%.

- **Administrative procedures within Cal-Learn should be streamlined and integrated across programs.**

The implementation (process) study recommended streamlining the processes by which child care and supportive services expenditures are approved and reimbursed. Complicated application and reimbursement procedures were identified as barriers to teens' use of these services. That report also suggested better integration of the roles of different departments within county welfare offices and between county welfare and case management agencies.

- **Outreach and information campaigns, using videos, flyers, posters and mass-media advertising, in multiple languages and targeted to both in-school and out-of-school teens, should be used to inform teen parents in CalWORKs about (a) their eligibility for Cal-Learn; (b) the Cal-Learn program components, and (c) what to do to receive their graduation bonus once they have graduated.**

Although most of the teens in the Full Cal-Learn research group received all the components of the statewide program, in some respects the implementation of the Cal-Learn program did not conform entirely to expectations. For example, few Cal-Learn teens used the funds available to them for child care and other supportive services, perhaps because they were not aware of these services.

In addition, a significant percentage (25%) of Full Cal-Learn teens were not aware of either of the reasons for which they could be sanctioned, and 15% were not aware of either of the reasons for which they could receive a bonus. An incentive that is not recognized as such presumably has no impact as a behavioral reinforcer. The County Welfare Departments could make sanctions more evident to teens and their parents, by, for example, periodically sending a teen-oriented brochure explaining the bonuses and sanctions with the welfare check (if appropriate, in

a language other than English). Equally important, teens who have been sanctioned or awarded a bonus should have the incentive brought to their attention. The County Welfare Departments could include an eye-catching flyer with a sanctioned welfare check that indicates the reason for the sanction. Bonuses could be acknowledged with a cheerful card congratulating the teen on the behavior that generated the bonus.

Many of the graduations that were earned by teens in Full Cal-Learn were not rewarded with $500 bonuses. About a quarter of graduating teens had exited from Cal-Learn by the time they graduated[28]. However, even among teens who reported graduating while in Cal-Learn, 36% indicated that they did not receive a bonus, probably because they did not report their graduations to their welfare office. Teens may not have realized that they had to take action in order to actually receive their graduation bonus. The consequences were both that many teens failed to receive the bonuses to which they were entitled, and that graduation bonuses may have lost some of their salience or their plausibility among each graduating teen's peer group. Teens might start to believe that graduation bonuses were not truly available to them, because so few graduates appeared to get them. The county welfare offices should make special efforts to tell teens what they must do in order to actually receive the graduation bonus.

When administrative data indicate that a teen had graduated while in Cal-Learn, the teen did receive a graduation bonus. However, all bonuses and sanctions should be applied in a timely manner. Some were applied long after the behavior that generated these incentives, which presumably limited their effectiveness as a behavior modification tool.

Area 2: Strategies to Improve Graduation Rates

The challenge facing the program is to become more effective in increasing graduations (both HSDs and GEDs) among teen parents; only about half the teens in the Full Cal-Learn program graduated by age 20. Possible strategies include:

- **Expand outreach to out-of-school teens: The California Department of Education (CDE) , the CDSS and local case management agencies (e.g. AFLPs) should collaborate in finding dropouts and informing them about Cal-Learn.**

Program impacts were most substantial among teens who were out of school at Cal-Learn entry, while impacts were small and non-significant among teens who were in school at program entry. The out-of-school teens, who were older than in-school teens and who more often had two or more children at Cal-Learn entry, may have found the barriers to earning a high school diploma insurmountably high, but the case management and financial incentives gave a small group of them the support they needed to earn GEDs. About 18% of out-of-school teens in the Full Cal-Learn group earned GEDs, double the rate of out-of-school No Treatment teens.

In contrast to the Cal-Learn results, the LEAP evaluation found that only teens who were enrolled in school when they started in the program benefited from it. LEAP tied its incentives to school attendance rather than report cards and graduation, a behavior that in-school teens probably found easier to comply with than did out-of-school teens. In addition, LEAP case managers were placed in schools, whereas Cal-Learn case managers usually were not.

- **Strengthen linkages between Cal-Learn case management agencies and schools through case conferences and coordinated information and assessments.**

Case managers need close ties with school staff – teachers, counselors and Cal-SAFE (California School-Age Families Education Program) staff – in order to meet the educational goals of the Cal-Learn program. Because AFLPs were originally focused on providing health and psychosocial supports to teen parents, case managers' links to schools may be less developed than their links to other parts of teens' lives. However, as we wrote in the implementation study, "[t]he Cal-Learn program offers an opportunity to integrate academic and psycho-social support services for pregnant and parenting teens in school by means of the closer cooperation of schools and case managers. Where teachers see the case managers as allies, they will ask case managers for support in locating absent students or accessing needed social services." Shared educational assessments of Cal-Learn teens could help case managers better guide teens, while case management agencies could assist schools in locating and motivating teens to attend school.

- **Assure that teen parents have access to schools that offer both strong academic programs – including remedial education – and needed services such as child care.**

The fact that all additional graduations attributable to Cal-Learn are GEDs suggests that the program has so far been most beneficial for teens who are willing and able to prepare for and pass a standardized examination. Some of these teens may have taken a GED because they felt they had no choice—that it was not possible for them to attend a regular high school and meet their parenting responsibilities. However, the majority of Cal-Learn teens are enrolled in school when they enter Cal-Learn, and the impact of Cal-Learn was notably smaller for this group than it was for teens out of school.

The process study identified a number of barriers facing teen parents who wish to attend regular comprehensive high schools, barriers that could account for the failure of Cal-Learn to increase graduation rates from these schools by much. The process study noted,

> Services available to teen parents vary among schools and districts. While all of the districts we visited had special programs for pregnant minors, there are some districts in the research counties that do not provide these programs. Moreover, while some of the programs were able to accommodate all students who applied, others had a limited number of slots. . . . In particular, in Los Angeles County there is an insufficient supply of . . . programs with on-site or nearby child-care. . . . Almost all programs [with child-care] cited in our interviews had long waiting lists, and in the largest school district in the state, Los Angeles Unified School District, only eight high schools provide on-site child care.
>
> Teens often have to choose between an academically rigorous program or one that offers support services because only a few programs provide both. In the districts we visited, few comprehensive high schools have parenting classes or on-site child care, while alternative education programs with support services for teen parents were described as not being academically rigorous. Because many Cal-Learn teens have dropped out of school at some point, they are in need of additional academic support. Yet, case managers and school counselors often steer these teens towards programs that provide the

> least support in this area. . . . There did not seem to be many programs designed to help low-achieving teen parents overcome their educational barriers. (Implementation of California's Cal-Learn Demonstration Project. April 1998. pp 28-29).

In short, few schools offer teen parents the combination of academic and non-academic supports and services that they need: schools with services may have weak academic programs, while academically strong high schools may not offer any programs serving teen parents. The Cal-SAFE program, which became operational in July 2000, may help remedy these problems, although it is not a statewide program. This comprehensive, continuous and community-linked school-based program is designed to increase the availability of support services necessary for enrolled pregnant/parenting students to improve academic achievement and parenting skills and to provide a quality child care/development program for their children.

- **Change the incentives policy to offer higher progress or graduation bonuses to teens who attend and graduate from high schools than to teens who earn a GED (an option that has possible drawbacks as well as possible advantages).**

Policy-makers should decide whether they consider GEDs to be as valuable as high school diplomas. If policy-makers want to increase high school graduations they could experiment with bonuses tied to attendance at a high school (an approach that may not be currently possible in California), or with higher bonuses for high school diplomas than for GEDs. We do not suggest ending the current bonuses that are tied to satisfactory school progress, however.

Aiming for, and earning, a high school diploma may have some other benefits over earning a GED. Students may learn more, because earning a high school diploma typically requires more "seat time" in class than does a GED. Additionally, although a GED is officially "equivalent" to a high school diploma, some empirical evidence suggests that among low-income women, GED recipients fare worse than high school graduates in the labor market, although better than dropouts.[29] These results are based on data for women who graduated in the 1970s and early 1980s. Starting in 2004 students will be required to pass the California High School Exit Examination to graduate from high school, which may further enhance the value of a high school diploma over a GED in the eyes of employers.

However, offering higher bonuses for HSDs than for GEDs could induce teens to enroll in high school when in fact they would be better served, at least in the short term, by earning a GED. Our own data (which admittedly cover only a brief period) suggest the same earnings advantages in the short-term associated with having a GED as with a high school diploma.

- **Require (rather than merely encourage) Cal-Learn participants to meet at least once with a case manager.**

The evaluation found that teens who saw case managers graduated at substantially higher rates than teens who were assigned to case management but did not see case managers. Teens who saw case managers are probably different from those who did not—more responsive to adult input, or more able to take advantage of services—which could account in part for their higher graduation rates. However, the data also suggest that case management services do lead to higher graduation rates. Case managers explain the program to Cal-Learn teens and reinforce

their expectations of Cal-Learn bonuses and sanctions. They can also assess the multiple needs of these young parents and provide them with advocacy and referral services. Teens themselves report that case managers are helpful.

In light of the apparent value of the services that case managers provide, the program could make a first meeting, or even a regular meeting, with case managers mandatory for clients. The mandate could be, but need not be, backed up with an offer an additional bonus or with the threat of sanctions (bearing in mind that bonuses were more salient to teens than sanctions.)

Area 3: Other Educational Strategies

The policy goals of Cal-Learn – to enhance self-sufficiency among young, disadvantaged parents through education – could be expanded in directions that would reflect the diversity of the Cal-Learn population. For example:

- **Teens are currently encouraged, through use of financial incentives, to continue their education while receiving public assistance. These bonuses could be extended to periods after the teen has left TANF.**

Financial incentives are a part of the set of resources and services which raise graduation rates among Cal-Learn teens. Once they leave aid, however, these incentives cease to operate for teens who have not yet graduated. Continuation of bonuses into a teen's post-TANF life could encourage successful school completion among those who have left aid.

- **Those teens who do graduate from high school should be encouraged to continue their education in college and to gain the skills that could make them more economically secure.**

Cal-Learn teens are a diverse group. Most Cal-Learn teens aspire to education beyond high school. With appropriate support and encouragement many could go on to college and succeed, either in a relatively brief vocationally-oriented course of study or in a longer, more academic program. Both of these approaches can be expected to improve the employment and earnings of respondents. College enrollment among former Cal-Learn participants would be facilitated by changes in CalWORKs policies, by college financial aid policies that take dependents into account, and by academic outreach and support programs from colleges and universities. Programs should be structured to help participants to not only enroll in, but also to finish, their course of study.

- **A significant number of Cal-Learn teens have serious educational or other deficits which prevent them earning an HSD or GED without intensive remedial academic help and other non-academic supports. Programs should be designed and funded so as to provide sufficient educational and psycho-social supports for these teens.**

The Cal-Learn program was substantially more beneficial for the 70% of teens who said they had *never* been held back a grade in school than for the 30% of teens who said they had been held back. This finding may seem inconsistent with the finding that teens who were out of school

benefited more than teens who were in school at entry, but it is not: there is no correlation between being out of school at Cal-Learn entry and having been held back a grade in school. Cal-Learn provided no benefits in terms of graduations to teens who both had been held back a grade in school and were attending school at Cal-Learn entry.

Not only had a substantial number of Cal-Learn teens been held back in school, but more than half said they had been expelled or suspended. These teens apparently needed more or different services or incentives than are available through Cal-Learn. Having been held back a grade may suggest learning disabilities or other serious impediments to academic success. Teens with a history of expulsion or suspension may have been acting out in response to academic failure, or to stress elsewhere in their lives. These problems, which would typically have started long before the teens become parents, are best addressed through multi-faceted and intensive educational and psycho-social supports.

- **Cal-Learn was intended to have a multi-generational impact, benefiting both teens and their children, by increasing teens' earnings and reducing their welfare dependency. This goal would be served by assuring that high-quality child care or pre-school services are accessible and convenient for teen parents, whether they are attending school or employed, and by educating teens about the value to their children of high-quality child care and preschool programs.**

Few Cal-Learn teens placed their children in daycare centers and other organized programs, but instead cared for their children themselves or relied on family members. According to a report by PACE (Policy Analysis for California Education) which looked at the quality of child care choices made by women participating in welfare-to-work activities, daycare centers used by these parents typically provided "high" or "good" quality care, while child-care homes and kin-provided care (the strategy of choice among Cal-Learn teens) tended to be rated as poor quality.[30]

It is crucial that high quality daycare or pre-school services be available to teens' children. When teens do have access to good quality daycare, case managers could usefully educate them about its developmental value to their children. Unfortunately, high quality daycare centers may not be available to the children of Cal-Learn teens. In many parts of California, low-income parents have less access to quality licensed child care than parents living in wealthier communities.[31] When asked why they did not leave their child with a babysitter or in daycare, many Cal-Learn teens responded that they did not feel confident about the quality of child care or they did not want to leave their children with people they did not know because they did not trust them. This was the second most common response to the question; the most common was that the teen did not need daycare because she was always with her child.

Area 4: Repeat Childbearing

Cal-Learn as it is presently structured will not reduce repeat births among teen parents. However, other policies appear to be having this effect, and should be continued.

Between 1994 and 1998 the teen childbearing rate in California declined by a very substantial 28%, a sharper drop than in the nation as a whole. During that period, California invested heavily in programs that may well have contributed to the decline in teen births. These included substantial subsidies and expanded access to reproductive health services for low-income women, including teens; funds for community-based teen programs; AIDS education in schools; and campaigns directed at potential or actual fathers. During this period, concern about AIDS increased the availability of, demand for, and use of condoms. In addition, choices among family planning methods broadened as Depo Provera and emergency contraception became better-known and available.

These policies almost certainly helped lower California's teen childbearing rates, so it would be wise to continue them. In addition, bringing more teen parents back into school and expanding educational opportunities for teen parents beyond high school may also have this effect because, as this evaluation showed, teens enrolled in educational programs have much lower rates of unprotected sex and lower childbearing rates than teens not enrolled.

Area 5: Areas of Research

Research is needed to expand our knowledge about Cal-Learn, and about teen parents in California. Useful research projects include:

- **Estimating the cost of the Cal-Learn program, per participant and per graduation.**

An estimate of the cost of Cal-Learn would require a per-client, per-month cost of the program, which could be estimated from recent statewide cost data. The average number of months that most clients participate in the program could be estimated from the evaluation data.

- **Studying those aspects of the program that are not operating as intended or expected.**

Research studies – immediate, and probably fairly short-term – are needed to determine whether welfare caseworkers are failing to enroll eligible teens in Cal-Learn, why teens are not collecting graduation bonuses, and why they are not using organized child care services.

- **Evaluating the longer-term impacts of Cal-Learn on teens and their children.**

Outcomes that should be tracked at least two to three years after Cal-Learn participation include teens' welfare participation, employment and earnings, their later educational attainment, and later childbearing, particularly in the context of CalWORKs time limits. A second important area of research is to understand the impacts of Cal-Learn on teens' children in areas such as health and school readiness.

- **Evaluating the implementation and the impact of the Cal-SAFE program, which is intended to assure that schools provide adequate services to teen parents.**

The Callifornia Department of Education is in the initial steps of the Cal-SAFE evaluation. The

areas of review and data collection are being finalized. If Cal-SAFE is successful, it will address many of the areas where Cal-Learn has not yet had much benefit to teen parents: that is, for those teens enrolled in school, and those with substantial academic deficits. The success of Cal-SAFE could be crucial to improving the effectiveness of Cal-Learn.

Conclusion

The evaluation of Cal-Learn has established the program's value for California's teen parents. The program is motivating teen parents to acquire GEDs instead of dropping out. The challenge now is to build on the success to date and create strategies that bring many more teens closer to economic self-sufficiency. Some relatively small changes to Cal-Learn might make it substantially more effective. The complex and varied needs of teen parents, however, probably require further experimentation with other programs, and larger investments in programs that are already known to be successful. Teens with severe educational deficits may need more resources to help them succeed in school, while those who are educationally stronger may need encouragement to go to college and acquire the skills that will make them able to support themselves and their children. California's policy-makers should continue to search for responsible and effective strategies to improve the lives of teen parents and their children.

APPENDICES

APPENDIX A: THE CAL-LEARN MODEL

Under the Cal-Learn program rules, pregnant and parenting teens receive a $100 bonus up to four times a year for maintaining satisfactory progress in school (at least a 2.0 or "C" grade point average) and a one-time $500 bonus for high school graduation or its equivalent. They can also be sanctioned by $100 up to four times a year ($50 for two consecutive months), if, without good cause, they fail to maintain at least a "D" (1.0) grade point average in school or do not submit a report card (sanctions can be applied for this reason to non-graduated teens not enrolled in school). A $50 sanction is applied if a report card showing adequate or satisfactory progress is turned in late without good cause. Teens who earn a grade point average between 1.0 and 1.9 receive a recommendation of "adequate progress" and receive no bonus or sanction.

A sanction is deducted from a family's aid check and a progress bonus is added to the family aid check. Thus, the head of the case (who may or may not be the teen) may be the person most aware of any sanctions and progress bonuses. However, the graduation bonus check of $500 is always made out to the Cal-Learn teen. Bonuses are generally issued within a month after a report card is submitted. Sanctions typically take about two months because of welfare program rules concerning the client's right to appeal a grant reduction notice.

Cal-Learn teens are not eligible to receive a bonus or sanction until they complete a 90-day participation period, which starts the first day of the month after they are enrolled. They become subject to financial incentives as of the first report card issued after this time period. If, for example, a teen enters the program in March, the first report card she will be required to submit for a bonus or sanction may not be until November, even though she receives a report card in May. By that time, the teen may have graduated, turned 19 or gone off aid for another reason. If a teen cycles on and off aid, he or she may never meet the participation requirements for a bonus or sanction, regardless of school achievement.

Under the program, intensive case management is offered to each teen as well as financial support for child care, transportation, and school-related expenses. Eligible teens must participate in Cal-Learn until they earn a high school diploma or its equivalent, or until they turn 19. The CalWORKs plan (effective January 1998), which replaces AFDC with the state's version of Temporary Assistance for Needy Families (TANF), allows teens in the program to volunteer to participate in Cal-Learn until they turn 20. Welfare eligibility was expanded under Cal-Learn to allow pregnant teenagers with no other children to receive aid during their first and second trimesters, to encourage them to enroll in the program.

There are a few exceptions to the requirement that all under-19 parents on welfare who lack a high school diploma or equivalent actively participate in Cal-Learn. Under certain circumstances, such as when they are in postpartum recovery after the birth of a child, teen parents may be temporarily deferred from the bonus/sanction component of the program but their case management services will continue. Teen parents may be exempted from program participation for various reasons and receive no program services, for example, if they have a serious illness or incapacity that prevents them from attending school full-time; are expelled from school and cannot find an alternative school to attend; or need services which are unavailable.

The California Department of Social Services (CDSS) is the lead agency for planning and implementing the Cal-Learn program statewide. As lead agency, CDSS coordinates the overall program design with the California Department of Health Services (CDHS), Department of Education (CDE), and the counties. California's welfare programs, while financed chiefly through the state, are administered at the county level under CDSS oversight. Thus, Cal-Learn is managed by county welfare departments (CWDs).

Within counties, GAIN (California's JOBS program) was designated as the agency to operate the Cal-Learn program. AFDC offices were responsible for identifying eligible clients, referring them to GAIN, and deducting sanctions from their benefits. GAIN, in addition to administering the program, approves supportive services, authorizes bonuses and sanctions, issues bonus checks, and refers clients for case management services. Under CalWORKs, GAIN and AFDC functions, including responsibilities for Cal-Learn, have been reorganized within county welfare departments and the CDSS.

The legislation that created Cal-Learn requires counties to contract for case management services with Adolescent Family Life Program (AFLP) agencies, or ensure that the local agency providing these services meets the scope and standards of the AFLP case management model. The AFLP program has been in existence since 1985, and it is the California Department of Health Services' primary intervention program for pregnant and parenting teens. The central focus of this voluntary program is to improve the health of teen parents and their children through the provision of comprehensive case management. The AFLP program takes a broad view of health and offers counseling and referrals to needed services to enhance the psychosocial, physical, economic and educational well-being of teen parents and their children.

Cal-Learn expanded the population served by the AFLP agencies from self-referred volunteers to all parents under 19 on welfare who had not finished school. Under their Cal-Learn contracts, AFLPs are responsible for coordinating with the schools, collecting student report cards, and recommending bonuses and sanctions. Cal-Learn case managers explain the program to teens, undertake a comprehensive assessment of their needs, refer teens to needed services, and make a special effort to form a caring and sympathetic relationship. They help teens fill out GAIN child care and other supportive service applications, and monthly expense reports.

While the offer of intensive case management is a core component of the Cal-Learn program, in reality this is an offer some clients refuse to accept, or accept only reluctantly. Cal-Learn case managers can do an excellent job of assessing the multiple needs of teen parents, and they can provide them with advocacy and referral services. If a teen is unwilling or unable to accept help, however, there is not much that a case manager can do. A teen who refuses case management services or who meets with her case manager only sporadically is not penalized financially under Cal-Learn. Diligent case managers who typically receive referrals for case management from the welfare office may spend considerable time trying to track down and meet with resistant Cal-Learn teens.

Table A.1: Overview of the Cal-Learn Program[1]

ELIGIBILITY & ENROLLMENT

- County welfare departments are required to implement the Cal-Learn Program for all pregnant and custodial teen parents under age 19 and receiving AFDC.
- The teen parent participates in Cal-Learn until a high school diploma or its equivalent is obtained or the teen turns 19.[2]
- Teen parents may be exempted or deferred from the Cal-Learn Program only under specific circumstances, such as the unavailability of necessary services, or a special need that affects school performance and which cannot be addressed. Cal-Learn deferrals are time-limited and the teen parent will continue to receive case management services during the deferral period.
- Exemption or deferral from Cal-Learn does not mean that the teen is exempt from attending school. All teens must attend school as required by Section 48200 of the California Education Code.

SERVICES

- Supportive services necessary to enable the Cal-Learn participant to attend school regularly will be provided. Services include reimbursement for child care, transportation, and school-related expenses.
- All teens in Cal-Learn will be provided case management services to assist them with their educational goals, their health needs and those of their child, parenting skills, safety concerns and family issues.
- Cal-Learn case management services must either be provided by Adolescent Family Life Program (AFLP) providers or the services must conform to the standards of the Adolescent Family Life Program. Counties are required to contract for case management services with agencies that administer Adolescent Family Life Programs, unless AFLP is unavailable, not cost-effective or the county has an existing program and certain conditions are met.
- Counties providing non-AFLP case management services were required to submit additional information in their county plan which was reviewed and approved by the Department of Health Services.

BONUSES & SANCTIONS

- Bonuses and sanctions applied to the welfare grant are based on report cards and high school graduation or its equivalent. The bonus/sanction is limited to four times per year.
- A $100 bonus is provided to the family if the participant maintains satisfactory progress. Satisfactory progress is defined as a grade point average of at least 2.0 (a C average).
- A $100 sanction results from a participant failing to demonstrate adequate progress, either by failing to provide the report card or based on the report card grades. Adequate progress is defined as a grade point average of at least 1.0 (a D average).
- The sanction is applied to the family's aid check, not to exceed $50 in a single month.
- Cal-Learn participants receive a $500 bonus for high school graduation or equivalency. The $500 bonus is paid directly to the teen parent.
- For participants in non-graded programs the bonuses and sanctions will be given based on the school's determination of adequate or satisfactory progress.
- After the teen parent graduates from high school or obtains the equivalency, or turns 19, they become mandatory participants in GAIN.

NOTE: 1. CDSS, AFLP/Cal-Learn Case Management Program Training packet, August 1994 (edited).
2. Beginning in January 1998, clients can *volunteer* to participate in the program until age 20.

APPENDIX B: COMPARABLE PROGRAMS

Besides Cal-Learn, a variety of welfare programs to improve the educational attainment of teen parents have been developed and evaluated in other states and cities. The approaches have varied programmatically, with some overlap. More importantly, the evaluation studies differ enough methodologically as to recommend caution in comparing outcomes across studies. For example, Learnfare included teenagers who were not parents, as well as teenage parents older than those in Cal-Learn, and involved financial sanctions only; New Chance was neither mandatory nor did it involve financial incentives; LEAP was mandatory and involved financial sanctions and bonuses associated with school attendance rather than grades on reports; and TPD was mandatory for teen parents with only one child and utilized sanctions only. Below, we provide a brief overview of the various programs and evaluations that came before or were ongoing concurrent with Cal-Learn. This is not intended as a research review or comparison of findings.

Learnfare

Wisconsin's Learnfare program was designed to encourage 13- to 19-year-old aid recipients to enroll, attend and complete high school. The teens could be dependent children or teen parents, and sanctions were applied to their families' monthly AFDC grant for unacceptable school attendance. The program offered supportive services, including transportation and child care. A ten-county study was conducted with teens randomly assigned to experience Learnfare or to serve as controls. The major outcome variables of interest were school enrollment and attendance.

New Chance

This was a national demonstration program that ran in 16 locations in ten states. New Chance was not mandatory; it offered services to women aged 16 to 22 who were on welfare, had given birth as teenagers, and had not finished high school or received a GED. This program was designed to improve the economic prospects and well-being of participants and their children through various services which included parenting education, GED and job preparation classes, health education and case management. Volunteers were randomly assigned to receive New Chance services or to be controls who only received services if they sought them out on their own. Impacts on a range of outcome variables were explored, including educational attainment, fertility, child health, employment, and welfare receipt.

LEAP

Ohio's LEAP program uses financial incentives and penalties applied to the family's monthly welfare grant to promote school attendance among pregnant teens and teen parents on welfare. Teens who did not have a high school diploma or GED and who were on welfare were randomly assigned after eligibility was determined to participate in LEAP, or to serve as controls. The

program requires participants to stay in school and graduate, to return to school if they have dropped out, or to prepare for a GED. The program also provided case management services. Supportive services, such as child care, were offered to both treatment and control groups in the 12 counties studied. The major outcomes of interest were school enrollment, school attendance, high school graduation and GED receipt, and economic self-sufficiency indicators.

Teenage Parent Welfare Demonstration (TPD)

Operated in three cities in two states, TPD was a mandatory program for teen parents with one child who were new to AFDC. Participants were required to enroll in job search, training, or education programs, with financial sanctions against the AFDC grant for noncompliance. In addition, teens received case management, child care and transportation assistance, and workshops on various topics including parenting. After program eligibility was determined, teens were randomized into treatment and control groups and compared on outcome measures of interest. Measures of program impacts were: involvement in self-sufficiency activities (school, job training, employed), income, aid receipt, and various measures of social and demographic status (e.g., repeat childbirth).

APPENDIX C: RESEARCH COUNTIES

Four California counties were selected for geographic and demographic reasons to serve as demonstration, or research counties: Alameda, Los Angeles, San Bernardino, and San Joaquin. Some characteristics that distinguish the research counties are provided below.

Alameda County

Alameda County is located in Northern California. It contains densely populated urban areas as well as suburban and rural areas. The population of almost 1.4 million is very diverse, ethnically and economically, and there are great wealth disparities in the county. The largest city, Oakland, is composed of at least 82 different language and/or ethnic groups, according to the 1990 census. In 1996, 36% of the children were in low-income families. The teen birth rate in 1996 among 15-19 year-olds was 44.8 per 1000, and the total number of births to this age group was 1,830. The total caseload on welfare in July 1996 was 34,103; this number has been dropping steadily and in September 1999 stood at 22,202. The total Cal-Learn caseload in July 1996 was 748, and dropped to 312 in September 1999.

Los Angeles County

Los Angeles County is located in Southern California. It is the largest county in terms of population not only in the state but also in the nation, with more than 9.6 million residents. Los Angeles encompasses densely populated urban areas, large suburban areas, and part of the sparsely populated Antelope Valley. The county is ethnically and economically diverse. Fifty-nine percent of the county's children live in low-income families. The teen birth rate among 15 - 19 year-olds in 1996 was 68.3 per 1000, and there were a total of 19,958 births in this group. The total caseload on welfare in July 1996 was 306,330, and it dropped to 223,846 by September 1999. The Cal-Learn caseload in July 1996 numbered 7,075; this figure has declined steeply and in September 1999 it was 3,999.

San Bernardino County

San Bernardino County is also located in Southern California. The population of almost 1.8 million residents is spread across the largest county, geographically, in the state and the nation. San Bernardino is largely rural with a couple of urban and suburban population centers. The population is majority white, but there is a large Latino population. Forty-four percent of the children in the county live in low-income families. The teen birth rate among 15 - 19 year-olds was 66.9 per 1000 in 1996, and there were 4,316 babies born to teens. The county's total caseload on welfare in July 1996 was 60,825, and it declined to 40,496 by September 1999. The Cal-Learn caseload was 1,121 in July 1996; in September 1999 this figure dropped to 854.

San Joaquin County

San Joaquin County is located in the central part of California, in the San Joaquin Valley. The county is largely rural and agricultural with a couple of small urban centers. It is the smallest county in the demonstration project, both in terms of geographic size and population, with just over 560,000 residents. It is also a relatively poor county. Over half of the residents are White; Latinos make up the next largest group and the population of Southeast Asians is growing rapidly. Forty-nine percent of the county's children live in low-income families. The teen birth rate among 15 - 19 year-olds was 63.6 per 1000 in 1996, and the total number of births was 1,328. The total caseload on welfare in the county was 21,974 in July 1996; in September 1999 it had dropped to 14,634. The total Cal-Learn caseload in July 1996 was 505; in September 1999 it was 299.

APPENDIX D: DATA SOURCES AND DATA COLLECTION STRATEGY

To examine the characteristics of teens enrolled in Cal-Learn, their participation and use of services, their exposure to treatments, and the outcomes they experienced as a result of their participation and treatments, we examine an array of survey and administrative data. This appendix discusses the data sources utilized for the evaluation, the items drawn from these sources, and the time periods for which the data are available.

Cal-Learn eligible teens from four counties (Alameda, Los Angeles, San Bernardino, and San Joaquin) were randomly assigned to one of four research groups. In each of these four counties, data from the AFDC and GAIN systems were obtained for the teen and her case for the period beginning with her entry into Cal-Learn. These data were obtained on a monthly basis from each of the counties. A set of data items that could be defined with reasonable consistency across the counties were extracted and transformed for use in the analysis. Extracts of employment and earnings data were obtained from the Employment Development Department (EDD), and historical program participation data were taken from the Medi-Cal Eligibility Data System (MEDS).

Two of the four research groups were assigned to receive case management services from Adolescent Family Life Program agencies (AFLPs). These agencies throughout the state utilize a common software program, Lodestar, to track the teens they serve. AFLPs in the four research counties provided UC DATA with copies of their Lodestar data files on a monthly basis. Finally, a majority of the teens were interviewed at length over the telephone about their experiences in the Cal-Learn program and their educational, welfare, and family histories about a year after they entered Cal-Learn (Wave I of the Retrospective Survey), and re-interviewed about a year after that (Wave II of the Retrospective Survey). Figure D.1 identifies the data sources utilized for the evaluation. A brief description of the principal data sources follows.

Omitted from these descriptions is one additional source of key data used in evaluating outcomes: the database of GEDs maintained by the California Department of Education, GED Division. Unlike the other sources of data, the GED database provided aggregate outcomes for groups of teens in the evaluation, rather than individual level data for each teen. Those data are discussed separately in Appendix F.

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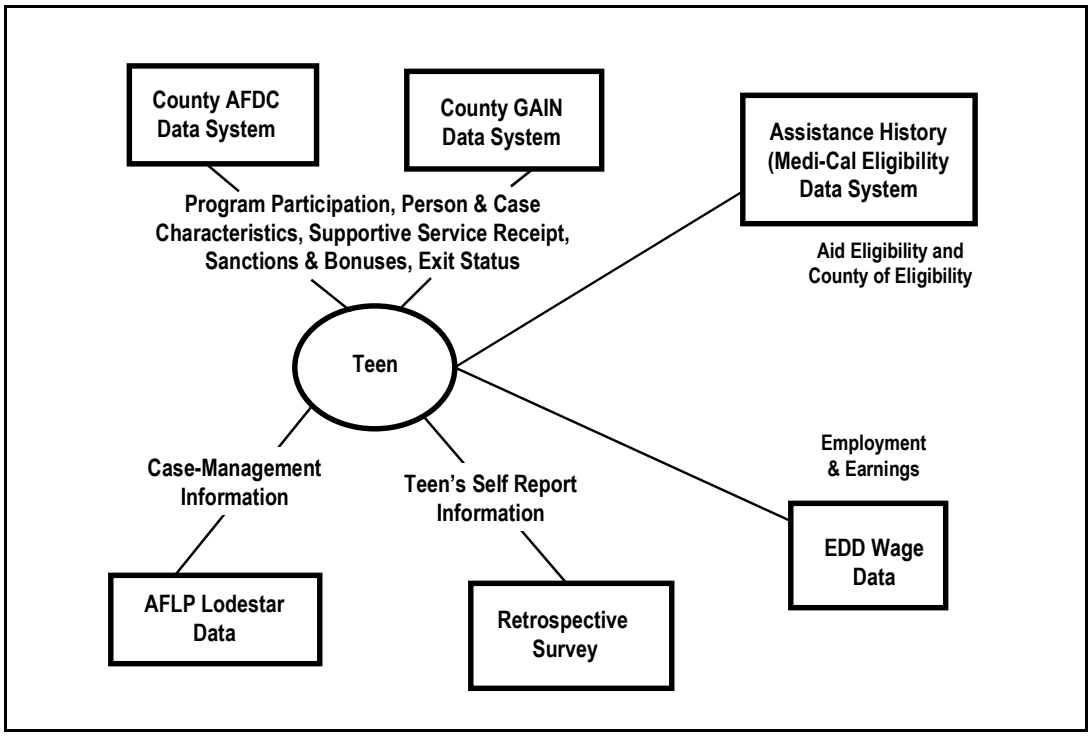
Figure D.1: Principal Data Sources Used for the Creation of Evaluation Analysis Measures



Principal Data Sources

County Administrative Data

In the four research counties, data from the AFDC and GAIN data systems were copied each month to tape cartridge and forwarded to UC DATA. Comparable sets of items were extracted and created from the programmatic data for all four counties. These data provide descriptive and demographic information about each participating teen (e.g. age, race, language), her case (e.g. number and age of children, case composition), and her Cal-Learn program participation over time (e.g. month of entry, month of exit, reason for exit). The data also reflect the teens' use of supportive services and any financial incentives applied to the teen in connection with her Cal-Learn participation.

Retrospective Survey

Survey staff attempted to interview all teens included in the evaluation, using the address and telephone information recorded in county and state welfare data files. This information was commonly outdated or incorrect, and staff updated location and contact information using a variety of sources. The telephone interviews yielded teens' self-report on current household composition, pregnancy history, family history, Cal-Learn experiences, educational experience, social supports, children's health, childbearing intentions, work experience, contraceptive use,

use of services, exposure to and attitudes toward financial incentives and case managers, and selected demographic data.

EDD Base Wage Data

These data reflect information collected by the California Employment Development Department, the state department that administers Job Service, Unemployment Insurance and Disability Insurance programs. EDD handles the audit and collection of employment taxes and maintains employment records for more than 15 million California workers. The EDD Base Wage File contains quarterly employer-reported taxable wage payments for the UI/DI program. Employment not covered in these data include some agricultural workers, railroad workers, religious workers, self-employed, federal and state employees, casual labor and, of course, unreported "off-the-books" employment. Although we believe the wages in the EDD file represent almost 90% of employment in California, the low skill jobs that public assistance recipients are likely to have may be under-represented. The EDD data used in this report provide quarterly taxable wage payments in covered employment through the third quarter of 1998 for Cal-Learn participants age 16 and older.

Assistance History Data

Monthly data on teens' historical program participation, including the programmatic basis for Medi-Cal eligibility (e.g. SSI/SSP, AFDC-FG, AFDC-UP, AFDC-Medically Needy Only, Foster Care, Transitional Medi-Cal, and many Immigrant/Refugee programs), are drawn from the Medi-Cal Eligibility Data System (MEDS). These data provide a rich source of information on historical program participation for teens. In addition to program participation, MEDS also records county of eligibility, basis of eligibility and basic demographic information, such as date of birth, ethnicity, and sex, as well as identifying information such as Social Security Number, name, case serial numbers, and address and zip code information.

The MEDS data provide an aid history for teens prior to, during, and after their period of Cal-Learn participation. Because MEDS is a centralized statewide database, it can be used to track a teen's AFDC participation within and outside the four research counties, and her public assistance receipt in periods not covered by the four-county administrative data.

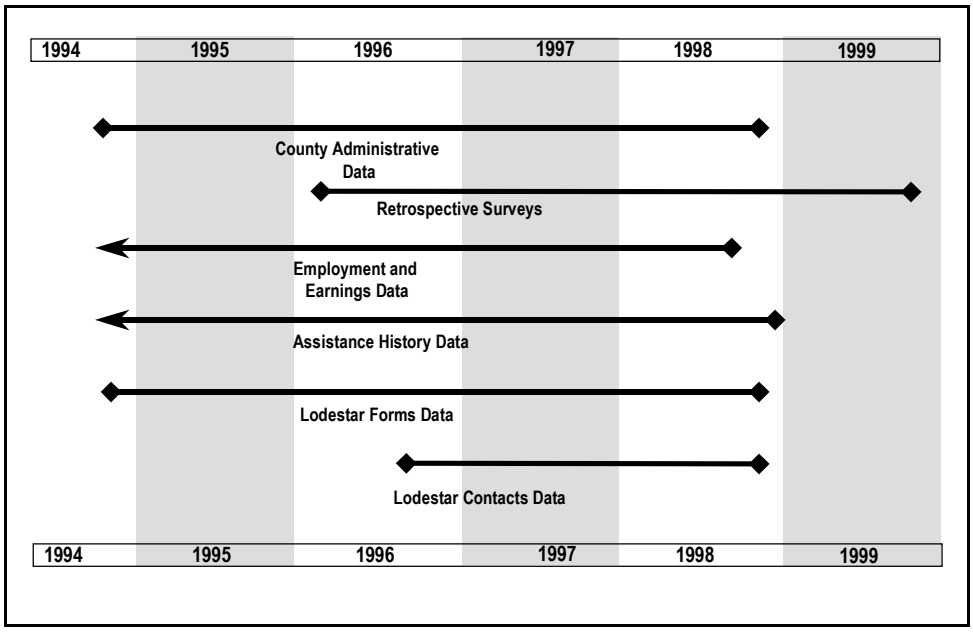
Lodestar Data

Lodestar is the PC-based software application used by the Adolescent Family Life Program (AFLP) agencies to manage and record data pertaining to the case-management services provided to pregnant and custodial teen parents. The original version of Lodestar has been used by AFLPs since 1986. In 1995, Lodestar was enhanced for the Cal-Learn program and evaluation. Information is collected for input into the Lodestar system using ten standardized forms which record basic identifying data, including social security number, pregnancy outcome information, service referral information, school enrollment and grades information, as well as other information pertinent to the teen's health and welfare. In the summer of 1996 a new form, the client contacts tracking form, was added to Lodestar, showing the frequency, length, and type of contacts teens have with their case managers.

Period of Coverage

The county administrative data used in the evaluation covers each teen's participation in Cal-Learn from her initial enrollment in Cal-Learn through November 1998 or her exit from the program, whichever came earlier. The periods of time covered by the state level administrative data MEDS, the Lodestar data, and the Retrospective Survey differ from one data source to another. Figure D.2 identifies the potential period of coverage for each data source in the evaluation.

Figure D.2: Periods of Coverage by Data Source



County Administrative Data

The county administrative data are collected for the period beginning in the month in which the teen is enrolled in Cal-Learn. These data exist for each teen only for the period that she remains enrolled in Cal-Learn; once she exits Cal-Learn due to graduation, loss of eligibility for cash aid, or by 'aging out', no further information is collected about her in this database. Hence, while the potential period of data collection for a Cal-Learn teen extends between the last quarter of 1994 and November of 1998, data are defined only from Cal-Learn entry until either exit or November 1998, whichever comes first.

Retrospective Survey

Beginning in April 1996, telephone interviews were conducted with Cal-Learn teens in the four research groups. Interviews for Wave I of the Retrospective Survey continued through April 1999. Interviews for Wave II of the Retrospective Survey began in July 1997 and extended through October 1999. The interviews probed for teens' experiences prior to Cal-Learn entry,

during Cal-Learn, and at the time of the interview. Since the interviews may have occurred either during the period covered by the county administrative data or later, they can potentially provide both validation of measures drawn from administrative data and supplemental information after the point that administrative data ends. Table D.1 identifies the length of time between Cal-Learn program entry and the date of the interview.

EDD Base Wage Data

The EDD Base Wage, recording quarterly employment and earnings in UI covered jobs, is provided for all teens who were aged 16 and older by the third quarter of 1998.

Assistance History Data

Data based upon the Medi-Cal Eligibility Data System provide a monthly record of welfare receipt and data elements for persons eligible for Medi-Cal in the state of California. The MEDS file provides this information for the period from January of 1987 through December of 1998, and includes valid data for periods prior to (and after, if applicable) the dates in which the teen was enrolled in Cal-Learn.

Lodestar Data

The Lodestar software underwent enhancement a number of times during the Cal-Learn evaluation period, as new items or forms were added to meet Cal-Learn evaluation needs. Some items, most notably the detailed contacts information which tracked the frequency, length, and type of contacts that the case managers had with the teens, are not available for the entire length of the evaluation. Two counties have valid contact information beginning in July of 1996, while the remaining two apparently did not implement this form until September of 1996. The extent of missing data for many elements in the Lodestar data makes their use problematic in this evaluation.

Data Items Utilized

The combination of county and state-level administrative data, in conjunction with the telephone interviews, provides a mix of information for assessing baseline demographic characteristics, evaluating outcomes, gauging use of services, measuring exposure to treatments, and assessing knowledge and attitudes. This section summarizes the variables used for these assessments.

The first group of variables provides baseline demographic and descriptive information about the teen for the point in time at which they entered the Cal-Learn program. These data, which include the teens' age, race, primary language, number and age of children, the age of the teen at the birth of her children, AFDC case composition, and programmatic basis for eligibility, are largely drawn from the county administrative data. These baseline demographic items are supplemented with measures of aid receipt from the Medi-Cal Eligibility Data System in the years prior to the teens' entry into Cal-Learn. Teens' employment in UI/DI covered jobs (if any)

prior to Cal-Learn entry is provided by EDD Base Wage data for teens who were age 16 in at least one quarter prior to entry.

Data items describing the teens' Cal-Learn experiences, including timing of their entry and exit, length of time active in Cal-Learn, and receipt of bonuses and sanctions are drawn from county administrative files. Teens in all research groups are eligible for supportive services— reimbursement or payment for child care, transportation, and school-related expenses— receipt of which is also documented in the county administrative files. Information about exposure to case management is available from the AFLP Lodestar Contact files.

The Retrospective Surveys provide a window into the Cal-Learn program from the teen's point of view. Self-report about bonuses and sanctions, as well as contacts with case managers, show the teens' experiences with the experimental treatments. These items explore the level and accuracy of teens' understanding of the Cal-Learn program, and their assessment of the fairness and usefulness of the Cal-Learn program elements. The table below identifies the timing of the surveys relative to Cal-Learn entry.

Table D.1: Timing of Survey Interviews Relative to Cal-Learn Entry

	Wave I Interviews	Wave II Interviews
Percent Conducted Within:		
1-4 months	1.2	-
5-8 months	21.2	-
9-12 months	34.4	-
13-16 months	24.1	0.2
17-20 months	9.8	12.3
21-24 months	3.0	34.8
25-28 months	1.9	40.7
29-32 months	2.5	15.8
> 33 months	1.9	9.2
Average Months Until Interview	12.7	25.7

Finally, data from all sources provide indicators of the dependent variables of interest. As discussed in Chapter II, evaluation outcomes include the direct goals of the Cal-Learn program – for example, school enrollment and graduation from high school – but also outcomes seen as derivative from more successful educational experiences, such as employment and departure from the public assistance rolls.

APPENDIX E: BASELINE CHARACTERISTICS OF EVALUATION SAMPLES

Introduction

Data on the demographic characteristics of the teens are intended to describe the teens when they enter Cal-Learn. Most of the items are drawn from administrative records, and reflect the information about the teen, her aid history, employment history, children, and AFDC case recorded in county AFDC files, state MEDS data, and EDD employment and earnings records. In some cases, data for particular items may have been unavailable in the month the teen entered the Cal-Learn program, and are instead drawn from the closest month for which the data were available.

One of the principal uses of these 'baseline' characteristics is to test whether teens in any of the four research groups differ in some systematic way from teens in any of the other groups. As discussed in Chapter II, random assignment to groups by Social Security number occurred as intended and such random assignment usually leads to all the groups being similar. However, it is possible that differences among the groups in characteristics associated with the outcomes of interest may occur by chance. We compared the groups in terms of the characteristics of the teens at the point they entered Cal-Learn in order to confirm that "unhappy randomization" (i.e., randomization that led to systematic differences between groups) did not occur. If it had, evaluators might incorrectly attribute differences in educational or other outcomes to the experimental treatments that each group received instead of attributing them to the initial differences among groups.

Differences between the research groups for continuous variables, like age or number of months of aid, are evaluated using an f-test, while differences in dichotomies and polychotomies, such as race or presence of a teen's child at program entry, are tested for using a chi-square test. Differences are reported if they are significant at the .05 level – i.e. if the likelihood that the observed difference would occur by chance is less than 1 in 20. Since the evaluation reports results for both the administrative sample and the subset of that sample for whom survey data are also available, comparisons of characteristics for both samples are shown. A brief discussion of the creation of the evaluation samples precedes these comparisons.

Creation of the Evaluation Samples

Between the last quarter of 1994 and June of 1997, teens from the four research counties were randomly placed into one the four research groups used to evaluate the impact of the Cal-Learn treatments. Counties followed different strategies in identifying teens who were potentially eligible, and information needed to determine whether teens were in fact eligible was often missing. As a result, many teens were initially randomized into the samples who ere not eligible. Statewide figures suggest that about 8% of teens placed into Cal-Learn are found to be ineligible to participate.

In addition to removing teens who were found to be registered in error, teens who participated in Cal-Learn for less than six months were removed from the evaluation samples. This removal accords with initial decisions to excludes teens older than 18½ at program entry, who would

have little chance to experience the treatments associated with Cal-Learn, particularly in terms of financial incentives. Teens are not eligible for incentives in the first three months after they enter Cal-Learn, and the first report card period after that three months is the first period which program staff use as a basis for awarding a bonus or sanction. Typically, at least 2 additional months elapse before bonuses or sanctions are actually applied. Hence, the earliest date that an incentive could be applied is five months after enrollment, while in fact virtually none were applied before six months.

Removal of teens with less than six months of exposure decreased the evaluation samples by 19%, both in the administrative and survey samples. In the administrative sample, 4% of the sample graduated within six months, 12% became ineligible for AFDC and the remainder moved to a non-research county, lost custody of their child, or were deferred. A higher proportion of the survey sample (9%) was lost to early graduation, including 2% who reported graduation prior to Cal-Learn entry. Had these pre-Cal-Learn graduations been detected by county welfare staff, the teens would have identified as registered in error and removed from the sample.

Including teens with less than six months of exposure would not have appreciably affected the impacts identified in this report. Of teens excluded from the administrative data, teens in the Full Cal-Learn group were twice as likely to have a graduation recorded as teens in the No Treatment group (25% vs 12%). Of teens dropped from the survey sample, teens in the No Treatment group were also marginally less likely to report a graduation (32%), than teens in the Full Treatment group (38%), the Financial Only group (33%), and the Case Management Only Group (40%). Official GED rates for teens dropped from the survey sample show a similar pattern, with teens in the Full Treatment group twice as likely to have earned a GED as teens in the No Treatment group (12% vs 6%), with teens in the single treatment groups falling between the two extremes (9%).

Baseline Characteristics for the Administrative Sample

Table E.1 identifies the characteristics of the administrative sample by research group. The average age of a Cal-Learn teen at entry is 17.3 years. Small differences exist in the age composition of the research groups, but these are neither substantively nor statistically significant. About two-thirds of the teens entered Cal-Learn when they were either 17 or 18, split roughly equally among these ages, with slightly under a quarter aged 16 at entry. Slightly more than one in ten were younger still, aged 15 or younger at entry. The maximum age at entry into the evaluation for sample teens is 18.5, because originally teens lost eligibility for Cal-Learn when they turned 19 years old,[32] and a minimum of 6 months of Cal-Learn participation was felt necessary to achieve programmatic impacts.

Table E.1: Characteristics at Cal-Learn Entry of the Administrative Sample by Research Group

	Research Group				All
	Full Cal-Learn	Financial Only	CaseMgmt Only	No Treatment	
Age at Entry					
Mean	17.2	17.2	17.3	17.3	17.3
Less than 16	10.8	11.1	11.8	10.9	11.1
Age 16	25.5	22.1	22.0	22.2	23.0
Age 17	32.5	33.8	32.6	31.8	32.7
Age 18	31.2	33.0	33.6	35.1	33.2
Race/Ethnicity					
White	20.5	21.6	20.5	18.7	20.3
Hispanic	50.1	49.7	48.7	46.9	48.8
Black	24.9	24.5	27.4	29.6	26.6
Other	4.6	4.2	3.4	4.8	4.3
English Language	89.0	89.8	89.7	90.9	89.9
Children at Entry					
Mean	0.85	0.86	0.85	0.83	0.85
No Children	22.2	20.6	23.5	23.6	22.5
One Child	72.5	73.8	71.3	71.0	72.1
Two Children	5.1	5.2	4.9	5.0	5.0
Three or More	0.2	0.3	0.4	0.5	0.3
Teen's Age at Birth of					
First Child	16.5	16.5	16.5	16.5	16.5
Youngest Child	16.6	16.6	16.6	16.6	16.6
Age of Oldest Child	0.85	0.86	0.83	0.89	0.86
Case Composition					
Federal Adults	1.0	1.0	1.0	1.0	1.0
Federal Children	1.6	1.6	1.6	1.5	1.0
Months on Cash Aid					
In Last 36 months	19.1	17.9	19.1	18.5	18.6
In Last 12 Months	6.7	6.3	6.8	6.5	6.6
Percent New to Aid					
In Last 36 Months	28.5	31.2	26.7	32.3	29.7*
In Last 12 Months	19.5	21.2	16.4	21.7	19.7*
Aid Code at Entry					
Family Group	90.3	90.8	87.4	89.2	89.4
Unemployed Parent	9.7	9.2	12.6	10.8	10.6
Employed in Prior Yr	14.8	17.1	18.3	16.6	16.7
Sample Size	976	1007	964	1010	3957

SOURCE: County administrative data, MEDS Assistance History data, and EDD Base Wage data
NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05.

Non-significant differences in race are seen between the groups. In the aggregate sample, 49% of the teens are identified as Hispanic, 27% are black, and 20% are white, with the remainder forming the residual "other" category. No differences in the primary language of the case exist among the research groups, with English identified as the primary language for 90% of teens' cases in each group.

About three-quarters of teens enter the Cal-Learn program with one child and about 5% enter with two or more children. Of those teens with one or more children, the oldest child is typically just under a year old, while the youngest child is usually about 8 months old. The average age at the birth of their first child is 16.5 years. Births at younger ages were not uncommon, however, with nearly 10% of the teens having given birth by program entry having a child by age 14. At entry, the typical case containing a Cal-Learn teen has 1 eligible adult, and 1.5 eligible children. No statistically significant differences exist among the research groups on any of these characteristics.

The basis for cash aid for 9 in 10 sample teens was as a member of an AFDC-FG (Family Group) case, with the remainder eligible under UP (Unemployed Parent) cases. A history of cash aid was common for these teens – on average teens received cash aid in nearly 19 out of the last 36 months, and about 6.6 of the last 12 months. The assistance history data provide a monthly history of aid which extends back to January of 1987; it suggests that 30% of Cal-Learn teens first went on cash aid during the 3 years prior to their entry to Cal-Learn, while the remaining 70% had been on assistance more than three years before entering Cal-Learn. Twenty percent of teens are new to cash aid in the 12 months preceding their entry into Cal-Learn. Slight differences exist between the research groups in terms of their aid history, with teens in the Case Management Only group tending toward longer period of time on aid prior to Cal-Learn entry. The earnings and employment data, which are valid only for teens age 16 years or older, indicate that many Cal-Learn teens have some experience in UI-covered employment, with 16% of those with valid data showing earnings at some point prior to Cal-Learn entry.

Baseline Characteristics for the Survey Sample

The teens contacted for the Retrospective Survey resemble those in the full administrative data sample of teens, at least in terms of demographics, as shown in Table E.2. The average age at entry differs by less than a week in aggregate. While the average age does not differ significantly between groups, variation in the proportions of teens in selected age categories suggest the possible need for age controls in multivariate analyses.

Table E.2: Characteristics at Cal-Learn Entry of the Survey Sample by Research Group

	Research Group				All
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
Age at Entry					
Mean	17.2	17.2	17.2	17.2	17.2
Less than 15	11.0	10.9	13.3	10.9	11.5
Age 16	27.4	20.5	22.3	24.8	23.8*
Age 17	30.9	36.6	36.0	30.2	33.3*
Age 18	30.7	32.1	28.5	34.1	31.4
Race/Ethnicity					
White	20.4	22.8	21.5	19.6	21.1
Hispanic	47.0	48.3	46.5	45.1	46.7
Black	26.2	24.7	27.7	31.0	27.4
Other	6.4	4.2	4.3	4.4	4.8
English Language	88.2	89.4	88.8	90.8	89.3
Children at Entry					
Mean	0.82	0.84	0.84	0.80	0.82
No Children	23.4	21.9	24.1	25.5	23.7
One Child	73.0	73.5	71.1	70.2	71.9
Two Children	3.4	4.3	4.4	3.9	4.0
Three or More	0.2	0.2	0.4	0.4	0.3
Teen's Age at Birth of					
First Child	16.5	16.6	16.5	16.5	16.5
Youngest Child	16.5	16.6	16.6	16.6	16.6
Age of Oldest Child	0.80	0.78	0.76	0.84	0.80
Case Composition					
Federal Adults	1.0	1.0	1.0	1.0	1.0
Federal Children	1.5	1.5	1.7	1.5	1.5
Months on Cash Aid					
In Last 36 months	19.6	17.6	18.4	18.8	18.6
In Last 12 Months	6.8	6.3	6.6	6.5	6.6
Percent New to Aid					
In Last 36 Months	26.8	32.7	29.6	32.8	30.4
In Last 12 Months	18.8	22.7	16.8	23.1	20.4*
Aid Code at Entry					
Family Group	89.5	89.7	86.3	86.9	88.3
Unemployed Parent	9.5	10.3	13.7	13.1	11.7
Employed in Prior Yr	12.8	17.2	16.4	16.2	15.6
Sample Size	553	554	520	549	2156

SOURCE: County administrative data, MEDS Assistance History data, and EDD Base Wage data
NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05.

Small but statistically significant differences in prior aid do appear between the case managed groups and those not assigned case management. Full Cal-Learn and Case Management Only teens were less likely to be new to aid, with only 18% new to aid in the previous year, versus 23% for the non-case-managed teens. No significant differences by research group are apparent in either employment history or basis for aid at entry.

The comparison of baseline characteristics by research group for the analysis samples suggest two things: first, that the randomization process held up well, resulting in groups whose composition is very similar, and; second, that the process by which teens were reached and interviewed in the Retrospective Survey did not act to introduce differences between the groups in terms of baseline characteristics. Table E.3, which provides additional detail on teen's age at the point they were contacted for the each wave of the Retrospective Surveys, indicate that the average age of teens in the four research groups differ little from one another at point of interview. As with age at entry to Cal-Learn, however, minor variations in the proportions of teens in particular age ranges argues for restricting some analyses to particular ages or employing age controls with multivariate analyses.

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Table E.3: Age at Entry and Age at Interviews for the Survey Sample by Research Group

	Research Group				All
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
Age at Entry					
Mean	17.2	17.2	17.2	17.2	17.2
Less than 17	37.4	31.4	35.6	35.7	35.3
Age 17	30.9	36.6	36.0	30.2	33.3*
Age 18	30.7	32.1	28.5	34.1	31.4
Sample Size	553	554	520	549	2156
Age at First Interview					
Mean	18.3	18.3	18.2	18.3	18.3
Less than 17	12.9	12.9	13.5	12.8	12.7
Age 17	22.7	20.6	21.5	21.9	21.7
Age 18	35.4	35.8	36.2	33.9	35.3
Age 19	25.8	27.4	25.8	27.3	26.6
Age 20+	4.3	3.2	3.1	4.2	3.7
Sample Size	553	554	520	549	2156
Age at Second Interview					
Mean	19.4	19.3	19.3	19.4	19.4
Less than 17	1.5	5.5	3.0	3.2	3.3
Age 17	8.0	6.3	8.8	7.6	7.7
Age 18	22.3	20.2	19.3	24.6	21.7
Age 19	32.0	34.1	37.6	29.0	33.0
Age 20+	36.2	33.9	31.2	35.6	34.3
Sample Size	412	381	362	407	1562
Age at Most Recent Interview					
Mean	19.1	19.1	19.0	19.1	19.1
Less than 17	4.7	6.6	6.7	5.8	5.9
Age 17	11.7	9.0	11.7	9.7	10.5
Age 18	24.9	24.2	23.1	27.3	24.9
Age 19	30.7	35.1	35.6	29.9	32.7
Age 20+	28.0	25.1	22.9	27.3	25.9
Sample Size	553	554	520	549	2156

SOURCE: County administrative data, MEDS Assistance History data, and EDD Base Wage data

NOTE: Statistical significance levels are indicated as *** $\leq$.001; ** $\leq$.01; * $\leq$.05. Age at most recent interview reflects the teen's age at second interview for teens contacted in Wave II of the Retrospective Survey, and her age at the date of Wave I of the Retrospective Survey if the teen was not re-interviewed in Wave II.

APPENDIX F: VALIDATION OF SELF-REPORTED GRADUATIONS

A central goal of the Cal-Learn program is to create and maintain teens' involvement in their own education, leading to the completion of high school or its equivalent with a diploma. That completion is intended to be marked in teen's welfare records, based upon the teen providing a case manager or GAIN worker with proof of graduation.

Based solely upon the data elements recorded in the county welfare administrative data, the Cal-Learn program is remarkably successful. In comparison with the group of teens assigned to the No Treatment control group, teens in the Case Management Only group graduate at more than twice the rate, and teens subject to financial incentives graduate at almost three times the rate. Teens in the Full Cal-Learn group, assigned to receive both case management and financial incentives, graduate at a rate nearly four times higher.

Examination of self-reported graduations from the Retrospective Surveys provides a somewhat different picture of educational outcomes. On one hand, while the differences in graduation rates between groups remain, they are substantially smaller. On the other hand, the fraction of teens who report completion of high school or its equivalent is substantially higher overall.

In order to determine more precisely the level and source of the discrepancies between data sources, we examined graduations occurring at a time in which they should have been observable from both the survey and administrative sources. Restricting our sample to teens whose self-reported graduation falls into the period for which we have administrative data suggests that the administrative data record only half (53%) of the graduations reported in the survey, and that the gap between the two sources is substantially higher for teens in the No Treatment group (see Table F.1).

Table F.1: Percent of Self-Reported Graduations Confirmed in Administrative Data by Research Group

Administrative Data and Self-Report	Research Group: Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	All
Percent of Reported HSDs Confirmed	74.3	60.3	70.2	22.1	53.7
Sample Size	70	68	84	23	326
Percent of Reported GEDs Confirmed	63.0	65.2	50.0	14.8	47.4
Sample Size	70	68	84	23	326
Percent of Reported Graduations Confirmed	71.1	61.5	67.6	20.8	52.6
Sample Size	70	68	84	23	326

SOURCE: County administrative data and Retrospective Survey Wave I & II

The discrepancies between sources in graduations suggest either over-reporting of graduation in the survey data or under-recording in the administrative data. Both are plausible, although

under-recording in the administrative data is more consonant with the pattern of the gap by research group. To adjudicate between administrative and survey data, UC DATA sought independent verification of graduations from alternative sources. Separate methods of verification were pursued for verification of HSDs and GEDs.

Verification of High School Diplomas

Because we do not have access to school records due to privacy concerns, UC DATA staff requested commencement programs or publicly available lists of graduates from high schools attended by Cal-Learn teens and searched the lists for names of teens enrolled in our study Some school names provided by teens were ambiguous or not locatable, and school administrators indicated that graduation lists were not definitive because not all graduates would necessarily be listed. Over the course of 10 months, UC DATA contacted and received graduation lists from 88 schools; many other schools agreed to send lists but did not, or were unable or unwilling to provide lists. From the graduation lists provided by the schools that responded, we were able to either confirm or disconfirm teens' self-reports of 215 high school diplomas.

The results of this verification of HSDs from an independent source lends strong credence to the self-reports of HSDs: Of the HSDs reported by teens that were *not* already validated in the administrative data, 74% (82 of 111) were verified from school graduation lists. This validation rate approaches that of teens whose graduations *were* reported in administrative data (86%).

Table F.2: Percent of Self-Reported High School Diplomas Confirmed by High School Lists

	Graduations Reported in Survey and:	
	Recorded in Administrative Data	Not Recorded in Administrative Data
Percent of HSDs Confirmed in High School Lists	85.6	73.9
Sample Size	104	111

SOURCE: County administrative data, Retrospective Survey Wave I & II, and compilations of graduates' names from publicly available commencement programs and lists.

As shown in the first column of Table F.2, school records confirmed 86% of the HSDs that administrative data and survey data agreed had occurred. Validation of these HSDs was not, strictly speaking, necessary because they had already been confirmed by case managers or by staff in the welfare offices.

When administrative records and self-report do not agree, the second column indicates that at least 74% of the reported HSDs actually occurred. As we discuss in Chapter III, of all the HSDs reported in the survey for the Full Cal-Learn group, only 26% were not also recorded in the administrative data. The overall confirmation rate for HSDs reported in the survey data can be calculated as: 74% that are also recorded in the administrative data, plus 74% validated of the

26% not in the administrative data. This approach indicates that 93% of the HSDs reported in the survey actually occurred. Chapter III provides more discussion of this calculation.

The proportion of HSDs confirmed does not differ substantially by research group, which suggests that not only is the survey a more reliable and accurate source of information regarding the receipt of high school diplomas, but also that the self-report is equally reliable across each of the research groups.

Table F.3: Percent of High School Diplomas Reported in Survey Confirmed by High School Lists by Research Group

	Research Group				All
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
Percent of HSDs Confirmed in High School Lists	73.3	80.4	86.7	79.7	79.5
Sample Size	60	51	45	59	215

SOURCE: County administrative data, Retrospective Survey Wave I & II, and compilations of graduates' names from publicly available commencement programs and lists.

Verification of GEDs

All GEDs are awarded by the California Department of Education and are recorded in a comprehensive statewide electronic database. For GEDs, one-to-one correspondence between self-report and GED records was not available because of confidentiality concerns. However, staff at the GED Division of the California Department of Education provided *rates* of GED receipt for *groups* of teens. With aggregate data, we lose the ability to track specific teens in terms of *when* the teen may have gotten a GED – either before they entered Cal-Learn, before or after they were surveyed, or after they left Cal-Learn. This means that, while these data indicate GED rates for the groups of teens provided, they cannot directly verify GED receipt. For teens who responded to the survey, GEDs indicated in the statewide database may well have occurred after their interviews. Nonetheless, the GED database is the only independent source of validation of the self-reported GED attainment.

As Table F.4 indicates, three-quarters of the teens reporting receipt of a GED were located by their social security numbers as having been awarded a GED. The estimated levels of validation for the Full Cal-Learn and No Treatment groups were virtually identical, with slightly higher rates found for the Financial Only group and slightly lower rates found among Case Management Only teens. To the extent that all social security numbers are accurately identified and entered, these figures are high estimates of the GEDs which would actually be validated. About 4% of teens who did not report a GED were found in the state's GED database; such teens probably received GEDs after their last interview. A similar proportion of teens who did report GEDs may have also received their GEDs after their last interview. Teens who were excluded from the analysis samples because of insufficient program exposure but who reported receiving a GED had the same rate of receipt (75%) as did teens reporting GEDs who were included in the analysis samples.

Table F.4: Rates of GED Receipt Among Selected Cal-Learn Samples by Research Group

GED Rates					
	Research Group				All
Official GED Data	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment	
In Survey Sample					
Respondents Reporting GEDs	77.3	80.9	65.1	74.2	74.9
Sample Size	66	47	43	31	187
In Survey Sample					
Reported GEDs Not in Admin Data	51.7	67.9	53.13	73.0	60.9
Sample Size	29	28	32	26	115
In Survey Sample					
Respondents Not Reporting GEDs	4.1	3.7	4.5	3.1	3.6
Sample Size	488	486	477	518	1969
In Survey Sample					
All Survey Respondents	12.8	10.5	8.7	7.1	9.8
Sample Size	554	533	520	549	2156
In Administrative Sample					
All Teens	11.0	8.4	7.8	7.0	8.5
Sample Size	1010	979	968	1013	3970
In Administrative Sample					
Teens Not in Survey Sample	8.8	5.8	6.7	6.9	7.1
Sample Size	456	446	448	464	1654
Excluded: Insufficient Exposure					
Respondents Reporting GEDs	--	--	--	--	74.6
Sample Size					228

SOURCE: Proportions with GEDs recorded by the California Department of Education
NOTE: Teens are identified as excluded if they did not have at least 6 months of Cal-Learn exposure according to administrative and survey data. Excluded teens were not distinguished separately by research group.

While the estimated level of validation for GED rates is lower than the rate of validation for high school diplomas, both strategies suggest rates of receipt substantially more in line with survey estimates than with administrative records from county welfare databases. Both confirmation processes also suggest that confirmation rates of self-reported graduations among research groups are similar, unlike the confirmation rates for graduations recorded in the administrative data.

The independent validation of self-reported graduations strongly supports the use of the Retrospective Survey data in preference to administrative records for these critical measures of educational attainments.

APPENDIX G: ANALYSIS OF SURVEY NON-RESPONSE

Of the teens randomized into the evaluation from the administrative data sample, 58% were interviewed in Wave I of the Retrospective Survey. Of respondents to Wave I, 72% were later re-interviewed in Wave II. The relatively high level of non-response to the Retrospective Surveys is not surprising given that teens who in many studies would be screened out of the sample were included in the original sample. Other evaluations (including LEAP) are based on samples of individuals who must participate in a mandatory program orientation or initial interview. Those who fail to appear for these interviews are excluded from the study and often penalized financially. Initial interviews permit researchers to make a first contact with study participants and to gather from them detailed contact information which permit later follow-up and interviews. Cal-Learn did not recruit study subjects in this manner. As explained in the body of the report, individuals were randomized into the research once they had been identified in an electronic database as likely to be eligible for Cal-Learn.

The process of electronic identification was over-inclusive, in that many individuals who were not eligible for Cal-Learn were initially identified as eligible. (According to the "Cal-Learn Program Teen Parent Monthly Status Report", 8% of the teens statewide who are enrolled in Cal-Learn are enrolled in error.) This broad-based recruitment into the study included many teens who later could not be located for telephone interviews. Other studies have found that 20% or more of the cases initially identified by researchers as appropriate for an orientation fail to attend and are excluded from the study. In the Cal-Learn study these individuals remained in the evaluation and contributed to the relatively high non-response rate.

In the absence of a baseline or screening interview, this evaluation depended on county and state welfare records for addresses and telephone numbers. While these agencies maintain valid address lists to which they mail recipients' checks, they frequently do not have correct telephone numbers for clients. As a standard practice, survey staff used several strategies to locate respondents. They mailed letters to respondents and searched through databases such as Department of Motor Vehicles and credit reporting agencies. Geographic mobility also explains some of the difficulty in locating teens; even among teens who were located and interviewed, 7% had changed their county of residence between their Cal-Learn enrollment and the Wave I interview.

Even when initial contact information and phone numbers are available, it can be hard to bring this particular population to the telephone for an interview. Many teens are too busy or uninterested in the study to make themselves available for interview or to inform researchers when their telephone number changes. Late in 1998, after the telephone interviewing for Wave I had ended, an in-person survey effort was mounted in Alameda County, which generated a substantial number of additional interviews. One conclusion from that effort is that non-respondents were not hostile to being interviewed, but unmotivated to participate (despite financial incentives to do so). The in-person interview effort was not extended to other counties beyond Alameda, however, for budgetary reasons.

Implications for the Cal-Learn Evaluation

The implications of survey non-response depend crucially on the nature of the non-response. Non-respondents might be a random subset of the targeted survey group, no different in any systematic way from the respondents. If this is the case, then the survey respondents are as random and representative a sample of the study population as the administratively-selected study sample. In this case, the only consequence of survey non-response for inferences about program effects, or for external generalizability, is a loss of statistical power.

A second possibility is that non-respondents are a non-random subset of the targeted study sample, and differ from respondents on characteristics that are correlated with the program goal. For example, teens who do not participate in interviews may also be less likely to participate in school, and to graduate at a lower rate. If so, the consequences are not only reduced statistical power but also a loss of generalizability. Findings from the research would be generalizable to the kinds of teens who participated in the survey, but not necessarily to teens who did not participate. As long as the probability of participation does not differ across research groups, however, it is still legitimate to draw inferences about program effects from between-group differences in outcomes.

A third possibility is that non-response is not random and that research groups differ in their propensity to participate in the interview, perhaps as a consequence of the intervention itself. As discussed in Chapter III, for example, it appears that respondents' propensity to have their graduations reported in the administrative data varies systematically across research conditions. The No Treatment group is less likely to have their graduations reported because they do not have a financial incentive to report it themselves and do not have a case manager to report for them. If a similar bias were to exist in survey reports, the ability to evaluate program impacts would be jeopardized.

At the outset of the study we were concerned that contact information would be systematically better for some research groups than others, resulting in differential response rates across research groups and systematic bias in the evaluation results. This fear was not sustained. As Table G.1 shows, response rates for both Waves of the Retrospective Survey are similar across research groups and (except for the higher rates in Alameda due to in-person interviews) fairly similar across counties as well.

Moreover, because the Cal-Learn evaluation has access to administrative data on the entire intended interview sample as well as on the sample who were actually surveyed, it is possible to investigate non-response in some detail. Specifically, one can assess which of the three cases just discussed applies: whether the non-response is random, is non-random but occurs similarly in all research conditions, or is non-random and differs systematically across research conditions.

Table G.1: Percent of Administrative Sample With Completed Surveys by Research Group and by County

Administrative Data and Self-Report	Research Group			
	Full Cal-Learn	Financial Only	Case Mgmt Only	No Treatment
Percent with Completed Wave I Survey	57.7	58.4	56.3	60.2
Percent of Wave I Respondents with Wave II Survey	73.8	72.0	69.5	73.4

Administrative Data and Self-Report	County			
	Alameda	Los Angeles	San Bernardino	San Joaquin
Percent with Completed Wave I Survey	78.7	53.0	55.0	64.5
Percent of Wave I Respondents with Wave II Survey	78.3	71.9	71.6	66.9

SOURCE: County administrative data and Retrospective Survey Wave I & II

NOTE: The Alameda County response rate is a result of in-person interviews to supplement the telephone interviews.

Table G.2 provides additional information on differences between respondents and non-respondents. The respondents and non-respondents are not identical to one another, but they are similar in many respects. On most demographic characteristics they are either indistinguishable from each other or they differ only modestly. Non-respondents were slightly more likely to already have a child at Cal-Learn entry and to be Hispanic. They were, on average, a month younger at the birth of their first child than survey respondents and typically had been in Cal-Learn slightly less time.

If these were the only differences between respondents and non-respondents one might argue that the two groups were very similar to each other and that generalizability of the study remained strong. However, program evidence also suggests that non-respondents were either less successful in school, or less inclined to bring evidence of their successes to the welfare office than survey respondents. Non-respondents had significantly fewer Cal-Learn progress bonuses and, according to the administrative data, were significantly less likely to have graduated, than teens who responded to the survey. They were also less likely to have had case manager contact.

Table G.2: Characteristics of Respondents and Non-Respondents for Wave I Survey

Administrative Data and Self-Report	Non-Respondents	Respondents	
Administrative Data			
Age at Entry	17.3	17.3	
Children at Entry	0.63	0.59	
Race/Ethnicity			
White (%)	19.2	21.2	
Hispanic (%)	52.0	46.5	N.S.
Black (%)	25.3	27.5	
Other (%)	3.5	4.8	
Teen's Age at Birth of First Child	16.4	16.5**	
Teen's Age at Birth of Youngest Child	16.5	16.6	
Number of Eligible Adults	0.96	0.98	
Number of Eligible Children	1.6	1.5	
Months on Cash Aid in Last 12 Months	6.7	6.5	
Employed in Year Prior to Entry	16.6	16.7	
Number of Cal-Learn Active Months	14.1	14.6*	
Received Sanction (%)	49.8	45.6	
Received Any Bonus (%)	29.3	41.5***	
Graduated (%)	7.0	15.0***	
GED Data			
GED (%)	7.1	9.8***	
Lodestar Data			
Any Case Manager Contact (%)	90.5	93.3*	
Personal Case Manager Contact (%)	85.4	90.2**	
Sample Size	2156	1561	

SOURCE: County administrative data, Retrospective Survey Wave I, Lodestar Data, Assistance History Data, GED Data, and EDD Base Wage Data.

Table G.3: Characteristics of Respondents and Non-Respondents for Wave II Survey

Administrative Data and Self-Report	Non-Respondents	Respondents	
Administrative Data			
Age at Entry	17.2	17.3	
Children at Entry	0.61	0.58	
Race/Ethnicity			
White (%)	22.2	20.9	
Hispanic (%)	45.3	46.9	N.S.
Black (%)	26.9	27.7	
Other (%)	5.7	4.5	
Teen's Age at Birth of First Child	16.5	16.5	
Teen's Age at Birth of Youngest Child	16.6	16.6	
Number of Eligible Adults	0.99	0.98	
Number of Eligible Children	1.6	1.5	
Months on Cash Aid in Last 12 Months	6.7	6.4	
Employed in Year Prior to Entry	14.6	17.4	
Number of Cal-Learn Active Months	14.5	14.6	
Received Sanction (%)	52.1	43.3**	
Received Any Bonus (%)	34.6	43.8**	
Graduated (%)	8.7	17.4***	
Lodestar Data			
Any Case Manager Contact (%)	92.9	93.4	
Personal Case Manager Contact (%)	90.2	90.1	
Sample Size	1582	615	

SOURCE: County administrative data, Retrospective Survey Wave I & II, Lodestar Data, Assistance History Data and EDD Wage Data.

Internal validity, however - the ability to make causal inferences about Cal-Learn program effects based on the statistical equivalence of the four randomized treatment groups - remains strong despite the non-response. Not only are response rates the same across the research groups, but the characteristics of the four research groups are also similar within the survey sample. Further, within each research condition, non-respondents and respondents differ in predictable ways that reflect the overall differences shown in Tables G.2 and G.3. Non-respondents in *each* research group are proportionally less like to have administrative graduations recorded, to have contacts with case managers (if in a case managed group), or to avoid a sanction or be awarded a bonus (if in a group subject to incentives). In short, although it reduces the number of observations and attenuates statistical power, the non-response in this study does not seem likely to have biased the estimates of differences in graduation rates between the Full Cal-Learn and No Treatment groups.

ENDNOTES

[1] Cal-Learn caseload figures supplied by the State of California Health and Human Services Agency: Teen Parent Monthly Status Reports (Stat 45) for January 1996- September 1999, Cal-Learn Program, Department of Social Services.

[2] National and California teen birth rates from Child Trends. Table 2: Birth Rates for Females 15-19 in 1970,1980,1985,1990-1997, and Females 15-17 and 18-19 in 1997; and Pregnancy and Abortion Rates for Females 15-19, 1996, By State. [On-line, downloaded 2/17/00]. URL: http://www.childtrends.org/table2_99.cfm

[3] California teen birth rates supplied by State of California, Department of Finance, Demographic Research Unit, Actual and Projected Births by County, 1970-2008, with Births by Age of Mother and Fertility Rates. Sacramento, California, December 1999. [On-line, downloaded 2/2/00]. URL: http://www.dof.ca.gov/html/Demograp/99Births.htm , Report 99.xls

[4] The criterion of high school completion is satisfied in one of three ways: obtaining a high school diploma, passing the California High School Proficiency Exam, or passing the GED test (high school equivalency certificate).

[5] The Cal-Learn program serves both male and female custodial parents, but the large majority of the clients are female.

[6] See technical reports: *Implementation of California's Cal-Learn Demonstration Project: A Process Evaluation, Program Operation from July 1996 Through December 1997,* UC DATA, April 1998; and *Implementation of California's Cal-Learn Demonstration Project: A Process Evaluation, Program Planning and Implementation from June 1993 through June 1996,* UC DATA, April 1997. Available from URL: http://ucdata.berkeley.edu.

[7] As discussed in the Cal-Learn *Process Evaluation* (1997), the counties differed in their abilities to identify potential Cal-Learn teens, the strategies they pursued in finding and enrolling teens, and their subsequent identification of those who were ineligible to participate in the evaluation. For example, Los Angeles followed a much more complicated procedure for randomization and eligibility evaluation, resulting in a large number of persons randomized who did not meet the criteria for participation in Cal-Learn. In Alameda, all new AFDC cases with a household head under the age of 19 were enrolled into Cal-Learn, and de-registered as "erroneously referred" if at a later time they produced proof of earlier graduation.

[8] In addition, some teens who graduate will not receive graduation bonuses because they have left the Cal-Learn program. About a quarter of teens who graduated in the evaluation graduated at age 19 or older, the age at which teens are no longer mandated to remain in Cal-Learn.

[9] This strategy can be explained with the following example. We know from everyone who is aged 18 and over whether they graduated at age 18. The graduation rate for 18-year-olds is the ratio of (number of graduations at age 18 among everyone who has lived through age 18) to (total number of individuals who have lived through age 18). People currently age 18 contribute to the denominator as, on average, half a person (their exact value in the ratio is calculated

precisely from the data). People older than 18 have all completed that year of age so each of them represents one person in the denominator for the "age 18" graduation rate. The graduation rate for 17-year-olds is based on information from all survey respondents age 17 and above; the rate for 18-year-olds is based on all survey respondents age 18 and above; the rate for 19-year-olds is based on all survey respondents age 19 and above; and the rate for people age 20 or higher is based on all survey respondents age 20 and above.

The graduation rate for a typical group of Cal-Learn teens by the time they turn 19 is calculated by cumulating the probabilities of graduating before age 17, while age 17, and while age 18. Their graduation rate by age 20 is calculated by cumulating the probabilities of graduating before age 17, while age 17, while age 18, and while age 19. These rates are shown in the upper panel of Table 3.5. The estimates are based on data from both waves of the survey, but very similar conclusions are derived from the Wave I data alone.

[10] See *Cal-Learn Process Evaluation* (1998) UC DATA.

[11] Marin, G. & B. Marin, Research with Hispanic Populations. Sage Publications, Inc: Newbury Park, CA, 1991. ix, 130pp. Series title: Applied Social Research Methods series, Vol. 23.

[12] The age criteria restrict the sample to individuals who were young enough at the first interview (under 20) to potentially still graduate by the second interview, and were old enough at the second interview (at least 18) to be eligible to have graduated by then.

[13] Data from the California Public Use Microdata Sample (1% Sample) from the 1990 Census. Analysis run on-line at URL: http://socrates.berkeley.edu:7502/archive.htm on May 23, 2000.

[14] In addition to a high school diploma, passing either the GED or CHSPE fulfills the statutory requirement; however, in practice, passing the CHSPE was not considered a fulfillment of the requirement. This issue is discussed in greater detail in Chapter III.

[15] In all four research counties, 1983 teens were randomized into the two financial incentives groups and were in the program for at least six months. However, due to irregularities in the county data, the sample used in this section excludes the 193 teens from San Joaquin County.

[16] Some teens had six months of exposure to the Cal-Learn program by the time of their first interview while others did not have at least six months until their second interview. Both groups are included in this sample.

[17] See the discussion in earlier chapters regarding factors which might impact the teens' awareness of reasons for changes in grant amounts. This discussion may also be found in Cal - Learn *Process Evaluation* (1998) UC DATA.

[18] Teens who did not realize that they were in Cal-Learn and/or that they were subject to financial incentives were not asked about receipt of bonuses and sanctions. In Table 6.2, these teens are treated as reporting no receipt of financial incentives.

[19] Some of the differences, particularly differences in the receipt of sanctions, between the two groups seem less striking in the survey data. These results may be driven by the fact that Financial Only teens are both less likely to realize that they are in Cal-Learn and also less likely to realize they are subject to financial incentives than Full Cal-Learn teens. In the survey, only teens who believed themselves to be in Cal-Learn and eligible for financial incentives were asked whether they had ever received a bonus or a sanction. If we focus on this subset of teens who realized they were subject to incentives, the differences in receipt of sanctions become more apparent. For this subset, approximately 46% of the Financial Only teens reported receiving a sanction compared to only 38% of the Full Cal-Learn teens. The difference in reported sanction receipt for this sample was statistically significant at the .01 level.

[20] Since the surveys were conducted from April 1996 to April 1999 for the first wave and from July 1997 to October 1999 for the second wave, the time period covered by the Retrospective Survey will vary for each teen and is not equivalent to the Lodestar Contacts File sample period. As a result of this timing issue, the survey estimates of case management contact are not directly comparable to the contacts data from the Lodestar Contacts File. For example, contacts that occurred after a teen was surveyed, but before the end of the administrative data, are included in the Lodestar data, but not in the survey data. Likewise, contacts that occurred outside of the Lodestar period, but before the survey interview, are included in the survey data, but not in the Lodestar data.

In addition to differences in the sample period, the survey sample is not entirely comprised of the same teens as the Lodestar sample. As mentioned earlier, only 2156 teens were surveyed in the Retrospective Survey; 1073 of these surveyed teens are in case managed groups. Of the 1680 case managed teens included in our Lodestar sample, 936 were surveyed. Consequently, 138 case managed teens in the survey sample do not have Lodestar Contacts data due to the sample period issue.

[21] Of these 978 teens included in the survey sample below, 863 (88%) were included in the Lodestar Contacts File.

[22] Although all Cal-Learn teens are eligible for supportive services, teens must be enrolled in school in order to receive supportive services.

[23] Teens in San Joaquin for whom supportive service data were not available are not included in this sample.

[24] In Chapter VIII, we found significant differences in the use of child care paid for by Cal-Learn or the welfare department when comparing case managed and non-case managed teens. The comparison here indicates that case managed teens are equally likely to use institutional child care as non-case managed teens, but are more likely to have the child care financed by Cal-Learn or the welfare department.

[25] Cal-Learn *Process Evaluation* (1998) UC DATA.

[26] Long, David, Judith Gueron, Robert Wood, Rebecca Fisher and Veronica Fellerath. LEAP: Final Report on Ohio's Welfare Initiative to Improve School Attendance among Teenage Parents, Manpower Demonstration Research Corporation, 1997.

[27] Some of the differences in the results of the two evaluations are probably due to their different time frames and samples. LEAP evaluated teens at three years after program enrollment and random assignment, whereas the Cal-Learn data reflect a teen's outcomes approximately 2 years, on average, after enrollment and random assignment.

The LEAP evaluation reflects the experiences of a larger proportion of program-eligible teens than does the Cal-Learn survey sample, but does not reflect the experiences of all teen parents eligible for the LEAP program. In Cuyahoga County (the largest of the evaluation counties) about 17% of LEAP-eligible teens did not participate in the initial orientation and were therefore excluded from the evaluation. The Cal-Learn administrative data and official GED data represent all Cal-Learn-eligible teens in the counties included in the evaluation, while the Cal-Learn survey sample represents 58% of the evaluation participants.

[28] About a quarter of graduations occur when the teens are age 19. Since January 1998, teens can continue in Cal-Learn until their 20th birthday and would be eligible for graduation bonuses if they remain in Cal-Learn until they graduate.

[29] Cao, Jian, Ernst W. Stromsdorfer, and Gregory Weeks. "The Human Capital Effect of General Education Development Certificates on Low Income Women". Journal of Human Resources Winter 1996 pp 206- 228.

[30] Fuller, Bruce, Sharon Lynn Kagan, et al. Remember the Children: Mothers Balance Jobs and Child Care Under Welfare Reform. Berkeley and New Haven: UC Berkeley and Yale University, PACE Growing Up in Poverty Project. (2000).

[31] Fuller, Coonerty, Choong, and Kipnis (1998). An Unfair Head Start: California Families Face Unequal Access to Child Care. Berkeley, CA: University of California, PACE.

[32] In January of 1998, rules of Cal-Learn participation were modified. While mandatory participation continued to end when a teen turned 19, teens could voluntarily elect to remain in Cal-Learn for another year.