# INTERIM IMPACTS OF CALIFORNIA'S CAL-LEARN DEMONSTRATION PROJECT

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*Points of view or opinions expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of the Regents of the University of California or the California Department of Social Services.*

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

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## EXECUTIVE SUMMARY

This report details the results of an interim evaluation of the Cal-Learn program. Cal-Learn is a statewide program designed to help pregnant and parenting teenagers on welfare overcome the barriers to earning a high school diploma. To achieve these goals, the program offers intensive case management and imposes financial incentives in the form of bonuses and sanctions based on school enrollment and progress. It also provides funding for supportive services. The program is mandatory and is in its fifth year of operation in California.

Interim results are based on data collected between October 1994 and June 1998 on teens in Alameda, Los Angeles, San Bernardino and San Joaquin counties. The experimental research design allows evaluators to contrast the independent and combined effects of the two program elements: (1) intensive case management and (2) financial incentives. Teens who met the eligibility requirements for the Cal-Learn evaluation were randomly assigned to one of four research conditions:

1. *Full Cal-Learn*: Case Management with Bonuses and Sanctions;
2. *Case Management Only*: Case Management with No Bonuses or Sanctions;
3. *Financial Incentives Only*: Bonuses and Sanctions without Case Management; and
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.

### Findings

Comparisons of the educational outcomes—the proportion of teens who graduate, who earn a degree, and who do not drop out—across treatment conditions suggest that *the Full Cal-Learn treatment, including both case management and financial incentives, produces better educational outcomes than either financial incentives alone or case management alone, and is associated with significantly more graduations and GEDs than found in the No Treatment group.* Among respondents age 19 and over, 26% of the Full Cal-Learn group have graduated or earned GEDs, compared to 21% of those in the Financial Only group, 18% of those in the Case Management Only group and 16% of those in the No Treatment group.

Both treatments--case management and financial incentives—appear to contribute to the overall effectiveness of the Full Cal-Learn treatment. The program appears to achieve its ends by convincing most participants that they are, indeed, subject to bonuses and sanctions and by inducing most of them to work with a case manager. Clients who understand they are subject to financial incentives, or report seeing a case manager, have substantially higher rates of graduation or GED than clients who do not.

At this point in the evaluation, many participants are not old enough to have exited Cal-Learn by graduating or turning 19. Since we examine employment and public welfare outcomes only for teens who have left Cal-Learn, only a short window of time to observe these outcomes is available. Therefore, findings on post-Cal-Learn employment and aid

receipt are based on limited data for a relatively small number of teens. While these results suggest that employment is clearly linked to high school graduation, differences among research groups do not achieve statistical significance. Differences in welfare receipt also fail to attain statistical significance. Barriers to employment and financial independence at Cal-Learn exit remain high: the typical exiting teen is slightly under 19, has a fifteen month old-child, and is unlikely to have completed high school. After exiting Cal-Learn, 70% of teens receive public assistance with no evidence of employment during the observation period. The 25% of participants with post-Cal-Learn employment earn only $1051 per quarter on average. Evaluation of these outcomes will benefit from the longer observation period available for the final evaluation.

## Teen Characteristics

The demographic profiles of teens at entry to Cal-Learn provided in Part One of the report suggest that the differences in educational outcomes are "true" program effects, and do not result from differences in the characteristics of teens assigned to different research groups. The four research groups were virtually identical in terms of demographic characteristics and assistance history at the start of the intervention. These profiles also reflect a diverse and vulnerable population. The average age of a teen at entry is 17 years, but a third are aged 16 or younger, and one in ten is fifteen or younger. Slightly over two-thirds of teens already had a child at program entry, and on average had their first child at age 16. About half of the teens are identified as Hispanic, 26% are black, and 21% are white, with English the primary language of 91% of the sample teens. Over 30% of teens first began receiving aid in the three years prior to entering Cal-Learn and about 20% were new to aid in the year preceding their Cal-Learn program entry.

## Program Experiences

Part Two of the report highlights the mechanisms through which differences among treatment conditions emerge. The chapters describing the teens' experiences with Cal-Learn treatments indicate that a majority (55%) of teens subject to financial incentives experienced some form of financial incentive while participating in Cal-Learn. Teens who were offered the intensive case management services were more likely to receive bonuses (34%) than sanctions (30%). That pattern was reversed for teens who were not offered intensive case management: only 25% of teens received bonuses while 36% were sanctioned. Most teens felt that Cal-Learn bonuses were fair (90%) and useful (85%) in helping teens get good grades or graduate. Teens were less supportive of sanctions, but a majority thought the sanctions fair (60%), and 64% thought them very or somewhat useful in helping teens stay in school.

Virtually all of the teens (89%) offered intensive case management experienced some form of case manager contact, and averaged 1.5-2.0 contacts per month. Teens subject to financial incentives in addition to case management were more likely to be aware they were in Cal-Learn and had a case manager than teens offered case management without financial incentives. Most case-managed teens found their case managers helpful. About three-fourths (77%) of case-managed teens who knew they had a case manager reported

that, overall, having a case manager helped them "A Lot" or “Some”. Among teens who attended school during their participation in Cal-Learn, about two-thirds (65%) reported that case managers helped them with school related issues "A Lot" or "Some". Among teens who believed that Cal-Learn or the welfare department paid for transportation or child-care, a large majority said their case manager helped them gain access to those services.

Administrative data indicate that use of supportive services—child care, transportation or ancillary expenses related to education—was low. Only 42% of the participants had at least one recorded expenditure for any of the supportive services prior to the end of the administrative data collection period (June 1997). Transportation assistance was the most frequently used service paid for by the Cal-Learn program, with 36% of teens taking advantage of available transportation money and bus passes. Child care and ancillary expenses were each used by fewer than 15% of the sample. Case-managed teens were significantly more likely to receive supportive services than were non-case-managed teens (59% vs. 26%), and the Full Cal-Learn group was the most likely (63%) to receive such assistance.

This interim evaluation of Cal-Learn used a combination of county and state-level administrative data, and computer-assisted telephone interviews. These data provided a mix of information for comparing educational and economic outcomes among clients, gauging their use of services and their exposure to the program elements, and assessing their knowledge of and attitudes towards the program and its goals. The longer data collection period and larger samples available for use in the final evaluation, scheduled for the Spring 2000, should strengthen the evaluation of longer term outcomes and enhance the already emerging differences in educational outcomes.

# PART ONE

## INTRODUCTION TO CAL-LEARN PROGRAM AND EVALUATION

# I. INTRODUCTION

Cal-Learn is an innovative statewide program within the California Department of Social Services (CDSS) designed to help pregnant and parenting teenagers on welfare overcome the barriers to receiving a high school diploma. The program was prompted by policy-makers' concerns over the relatively high teen birth-rate in California, and the high rate of welfare use among former teen mothers—more than one-half of the women on welfare in California have their first child as a teenager. Teen parents are typically from disadvantaged households, face many barriers to educational and economic success, and frequently drop out of high school. Policy-makers hoped that Cal-Learn would raise the high school graduation rate among teen parents, thus reducing their welfare dependency and improving their chances of escaping poverty.

This report is an interim analysis of the impact that the Cal-Learn program has had on high school enrollment, high school graduation, employment and welfare receipt among participants. The report is divided into three parts. Part One (Chapters I, II and III) 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 IV to VII) we focus on the Cal-Learn program components and operations. We 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 Three (Chapters VIII and IX) presents the interim treatment outcomes on school enrollment, educational attainment, employment and welfare receipt. Overall conclusions from the report are provided in Chapter X. Readers who are only interested in the program impacts on teens' levels of education, employment and welfare receipt should read this chapter and then skip to Part Three of the report.

In this first chapter of the report we provide an overview of the Cal-Learn program, the evaluation and our research questions.

## The Cal-Learn Program

The Cal-Learn program features two key program elements: (1) intensive, individualized case management to help each client towards high school graduation and (2) financial incentives and penalties for either making progress in school or failing to make progress. Cal-Learn clients who graduate from high school or earn a GED[1] are rewarded with a $500 check made out to them personally. In addition, bonuses of $100 are applied to the family's welfare grant for "satisfactory" progress, indicated by at least a C average on a report card. On the other hand, a teen who does not turn in a report card or whose grades indicate "inadequate" progress (less than a D average) sees the family's welfare check reduced by a total of $100 (two $50 deductions over two consecutive months). Up to four report cards yearly can generate a sanction or bonus. All participants who are attending school are entitled to receive subsidized "supportive services"—child care, transportation and other school-related expenses. The program is mandatory and statewide, and has been operating in California since 1994. The details of the Cal-Learn program—and we caution the reader that the program has various refinements not captured in this brief summary—are explained in Appendix A. The program, while unique,

shares features with other programs for teenage parents that have been implemented elsewhere; some of them are briefly described in Appendix B.

## The Cal-Learn Evaluation

### Research Groups

The Cal-Learn evaluation is based on an experimental research design with data on Cal-Learn participants in four California counties: Alameda County, an urban county that includes Oakland and is adjacent to San Francisco; Los Angeles County, the largest urban county; San Bernardino County, a large rural county adjacent to Los Angeles; and San Joaquin County, a small rural county in the Central Valley of California. Appendix C provides brief descriptions of each of these counties. The interim report analyzes data collected between October 1994 and June 1998.

Teens eligible for the Cal-Learn program in these four research counties were randomly assigned to one of four research conditions:

1. **Full Cal-Learn**: Case Management with Bonuses and Sanctions;
2. **Case Management Only:** Case Management with No Bonuses or Sanctions;
3. **Financial Incentives Only**: Bonuses and Sanctions with No Case Management ; and
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.

This research design allows us to contrast the independent and combined effects of the two program elements: (1) intensive case management and (2) financial incentives (bonuses) awarded for school progress and graduation, and penalties (sanctions) applied for inadequate progress or noncompliance with report card requirements.

### Data Sources

A variety of sources provided the data for this report. UC DATA collects and processes raw data from county welfare administrative databases such as GAIN (i.e., California's JOBS program), AFDC, and Supportive Services; from case management agency management information systems (i.e., Lodestar); from statewide databases such as Employment Development Department and Medi-Cal records; and from telephone interviews with the Cal-Learn participants (see Appendix D for detailed information on the data sources). This report also presents information from UC DATA's separate implementation reports on the operational challenges of the program. These process evaluation reports were based on 254 face-to-face interviews conducted with state and county staff in the health, education, and welfare agencies charged with providing services to Cal-Learn teens.

## Program Theory

Implicit in the Cal-Learn program is a theory of how the program is supposed to work. Often program evaluations rely upon a simple black box model of causal connections, ignoring the question of how the program "works" altogether. This model takes the form **INPUT → ■ → OUTPUT.** In the present evaluation, four different treatments correspond to the inputs, the black box represents teen parents (and pregnant teens) on welfare, and measures of the outcome variables represent the output. The experimental design with random assignment makes it possible *scientifically* to make inferences about cause and effect relationships between the Cal-Learn program and the measured outcomes. Thus, our presentation of findings could be considered complete from a causal research perspective without ever examining the processes "inside" the black box, that is, how the program operates on the teens themselves.

Whether or not the treatments under study are found to be effective, it is important to understand what goes on in the Cal-Learn program, and to make explicit the implied theory of behavior change in the model. Understanding the theoretical causal model for the outcomes allows us to predict the likely results of treatments in different circumstances; and knowledge of the causal chain of behaviors can help improve program design. This informs us about the *practical* considerations that make the program more or less replicable.

A general model of the change process for the Cal-Learn statewide program might look like this:

**TREATMENT → KNOWLEDGE → BEHAVIOR → OUTCOMES (SHORT-TERM & LONG-TERM)**

It was assumed by program designers that teens who participated in Cal-Learn knew about the financial contingencies and intensive case management services associated with the program. They expected this knowledge to lead to a supportive relationship with a case manager, and to school performance that generates rewards and avoids penalties (short-term outcomes). These behaviors in turn, compared to a control group, would eventually result in higher graduation and GED rates, less dropping out, more employment and higher wages, and less time on welfare (long term outcomes).

The Cal-Learn evaluation contrasts with the statewide program in that the evaluation was designed to test the independent and combined effects of the two program components, case management and financial incentives. Thus, more than one model of behavior change might be proposed depending on the comparisons of interest. For example, to characterize the effect of Cal-Learn case management alone, where program rules mandate the offer but not the receipt of case management, a model that includes case manager interactions as the operational key to "effectiveness" might be drawn:

**CASE MANAGEMENT OFFERED→ AWARE OF OFFER→ SEE A CASE MANAGER→ BEHAVIOR CHANGE→ OUTCOMES**

Similarly, the effect of financial incentives, a cognitive manipulation designed to motivate school success, might look like the following:

**INCENTIVES OFFERED→ AWARE OF OFFER→ BELIEVE INCENTIVES APPLY→ BEHAVIOR CHANGE→ OUTCOMES**

Taking the above into consideration, the combined effect of the two components, which captures the statewide program model, would be described more accurately by the following model.

**CAL-LEARN CASE MANAGEMENT & BONUSES AND SANCTIONS OFFERED**

↓

**AWARE OF THE OFFER**

↓

**SEE A CASE MANAGER & BELIEVE YOU ARE SUBJECT TO INCENTIVES**

↓

**BEHAVIOR CHANGE**

↓

**OUTCOMES**

As described later in this report, we attempted to measure the intervening mechanisms—believing that one is subject to incentives, and seeing a case manager—to assess the extent to which the teen parents were exposed to the treatments as intended.

## Evaluation Questions

The focus of the impact analysis is on the educational and economic outcomes of teens randomly assigned to the various research conditions. The central questions 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 compared to No Financial Incentives have on graduation rates, persistence in high school, employment and welfare receipt? This question is investigated in two ways: by comparing the two No Financial Incentives groups to the two groups who received Financial Incentives, and by comparing the Financial Incentives Only group to the No Treatment group.

3. What impact does Case Management compared to No Case Management have on graduation rates, persistence in high school, employment and welfare receipt? This question is investigated in two ways: by comparing the two No Case Management groups to the two groups who received Case Management, and by comparing the Case Management Only group to the No Treatment group.

4. How does the impact of the Full Cal-Learn program compare to the impact of Case Management Only and Financial Incentives Only, when each is compared to the No Treatment condition?

A secondary set of questions explores the teens' experiences with and knowledge and assessment of the Cal-Learn program. If the Cal-Learn program is working as intended, then participants should be familiar with the program elements to which they are subject. In addition, teens who have contact with their case managers or receive financial incentives should be aware of these experiences. Ideally, clients would also think that the program is fair and useful. We also look at teens' use of supportive services, an element of the program that is available to all teens in Cal-Learn. Some of the questions we explore include:

5. Do clients randomly assigned to a particular treatment know they can receive it? Are teens who are subject to financial incentives aware that they can be financially rewarded or penalized based on school performance? Are teens who were randomized into the case-managed groups aware that they have a case manager?

6. Do clients experience the program elements? How many teens in the financial incentives groups actually received a bonus or a sanction? How many teens eligible for case management actually saw their case managers?

7. Do clients value the program elements? Do teens find Cal-Learn bonuses and sanctions fair and useful? Do teens who have experienced case management find their case managers helpful?

8. Do teens eligible for both case management and financial incentives (i.e., Full Cal-Learn) experience or assess their treatments differently than teens who are eligible for only one of the treatments?

9. Do teens take advantage of the supportive services available? Which supportive services are most commonly utilized? Which teens are most likely to use supportive services?

A third, exploratory set of questions focuses on the relationship between beliefs and experiences in the program and educational outcomes. The program model assumes that teens who think they can earn a bonus if they do well, or be sanctioned if they do poorly, will graduate at a higher rate than teens who do not expect rewards and penalties. Similarly, teens who have talked with a case manager are expected to do better than teens who have not. The questions we ask include:

10. Does the teens' awareness of her eligibility for financial incentives impact her outcomes? In particular, are outcomes different for teens eligible for financial incentives who realize they are eligible for financial incentives relative to those who do not realize they are eligible?

11. Does the teens' contact with a case manager impact her outcomes? In particular, are outcomes different for teens randomized into case managed groups who actually saw their case managers relative to those who did not see a case manager?

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. These same data sources, but covering a longer time period, will be available for the final report. That report will address the same questions as this interim report, and in addition provide some insight into contrasts across counties (not possible in this report because of insufficient data) as well as more detail on the circumstances of the teen parents and the impact of those circumstances on the program's effectiveness.

# II. RESEARCH DESIGN AND ANALYSIS PLAN

## Research Design

### Design

The evaluation of Cal-Learn employs a two-way factorial design to contrast the independent and combined effects of two program elements: (1) intensive case management and (2) financial incentives and penalties. Teens who appeared to meet the Cal-Learn evaluation eligibility requirements on paper or in the electronic data systems in the four counties were randomly assigned to one of four research conditions: full Cal-Learn, i.e., case management with bonuses and sanctions; case management with no bonuses or sanctions; bonuses and sanctions without case management; and "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.

**Figure 2.1**
**Cal-Learn Factorial Research Design**

| | |
|---|---|
| **Case Management**<br>**Incentives/Sanctions**<br>(Supportive Services) | **Case Management**<br>**No Incentives/Sanctions**<br>(Supportive Services) |
| **No Case Management**<br>**Incentives/Sanctions**<br>(Supportive Services) | **No Case Management**<br>**No Incentives/Sanctions**<br>(Supportive Services) |

### Sample

This report is based on administrative data for 3,201 Cal-Learn participants, and surveys of 1,720 participants. All eligible teens were randomized into the research between November 1994 and June 1997. As pregnant teens and custodial teen parents on AFDC were enrolled in the Cal-Learn program, they were randomly assigned to a research condition based on ending digits of their Social Security numbers. The following conditions were required for teens to be included in the evaluation:

- the teen met Cal-Learn program eligibility requirements as defined in Cal-Learn regulations, Manual of Policies and Procedures, Section 42-763;
- the teen was 18 ½ years or younger;
- the teen was not a member of a household already participating in another welfare experiment, the California Work Pays Demonstration Project; and
- the teen was eligible for AFDC and new to the Cal-Learn program.

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 the research code of the teen first assigned to a research condition.

The results of the randomization process in the counties show that the process was more than 98% accurate, with few misclassifications. In other words, comparing the actual research group to which teens were assigned with the expected research group based on their Social Security numbers, we found almost perfect correspondence.

### Point of Randomization

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. Assignment of teens to research conditions stopped in a county when the county reached or exceeded its projected number of "research teens" for a particular fiscal year (which ended in June).

The randomization process in each county started with county workers identifying potential Cal-Learn eligibles at AFDC intake or from AFDC records and putting these individuals on a list of people to be randomized into the four cells of the research design. Unlike evaluations of comparable programs elsewhere, the enrollment of teens into the Cal-Learn evaluation included neither an initial confirmation of their eligibility for the program, nor an intake process prior to randomization that would yield baseline data about them.

Although the Cal-Learn Program includes an orientation, attendance is not mandatory. Thus, teens included in the research were randomized to a Cal-Learn treatment condition on the basis of their Social Security number alone, regardless of whether they had been seen at an orientation or contacted personally by mail or phone, by GAIN workers or AFLP case managers. In short, randomization occurred *before* anyone determined conclusively that an individual identified in the welfare rolls belonged in the Cal-Learn program, and before anyone attempted to notify or enroll these individuals into Cal-Learn. This made it difficult to locate many of the research participants for telephone interviews because their addresses and telephone numbers were often missing or incorrect in the county databases. A detailed discussion of the county databases and other sources of data for the evaluation is presented in Appendix D.

## 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. In three of the four counties studied, almost all Cal-Learn participants were randomly assigned into one of four treatment conditions in the evaluation, 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. Because the evaluation operated with the backdrop of the statewide Cal-Learn program, participants may not have clearly understand the nature of the program condition they were randomized to receive. Many believed that they were in the full Cal-Learn program or that they were not in the Cal-Learn program at all. This confusion of the

participants may have diluted program impacts that might be seen had participants fully understood the program variation to which they were subject.

The various data sources on which this report is based have their own limitations. In particular, graduations appear to be incompletely reported in the administrative data. Consequently, the critically important educational outcomes are assessed here using self-report data from the Retrospective Survey. The response rate for this survey is approximately 50%. However, as we show in Appendix E, the level of non-response does not compromise the internal validity of the study, i.e., the ability to answer the question: did the treatments make a difference? The purpose of the evaluation is to compare the impacts of different treatment conditions on outcomes, a comparison that requires the four randomized groups who were interviewed not to differ on characteristics that could affect the educational outcomes. This requirement for similarity across the groups is met. The four randomized groups resemble each other to a remarkable degree, whether the comparisons are for the full sample of cases available in the administrative data or for the smaller sample who were interviewed.

At this point in the evaluation, many participants were not old enough to have experienced the outcomes that the Cal-Learn program is designed to produce—namely, high school graduations, employment and economic self-sufficiency. Additionally, many had not participated in Cal-Learn for very long. The final report will incorporate about fifteen more months of administrative data than this report, and will analyze two waves of interviews rather than one. With another fifteen months of data, the next report will analyze outcomes for a larger number of participants than were available for this report and will have a larger sample of older teens.

## Analysis Plan

### Overview

The ultimate goal of the Cal-Learn program, following program exit with a high school diploma or equivalent, is self-sufficiency for participants. The interim evaluation attempts to investigate participants' 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 has any job after leaving Cal-Learn, the percentage of time she is employed, and her earnings. Welfare receipt includes time in AFDC/TANF as well as time eligible for Medi-Cal assistance.

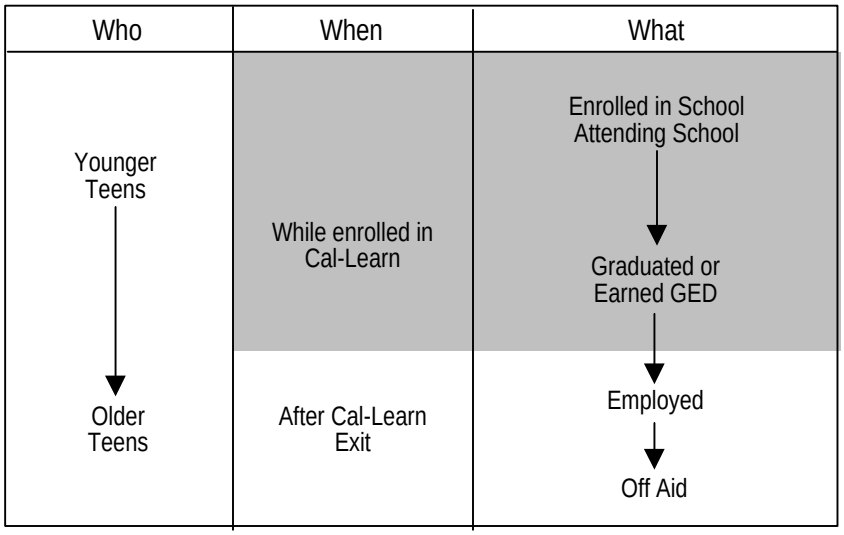
The evaluation seeks to assess the effects of the four program variations or treatment conditions as they are implemented in the real world. We compare groups of teens who have been randomly assigned to each treatment, and we include in the analyses all the participants assigned to each group. The evaluation incorporates such real-world circumstances as participants' level of knowledge of program treatments, and their use or non-use of offered services.

The survey and administrative data are sufficiently rich to allow us to examine the mechanisms through which impacts are achieved. If the program is 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. Our quasi-experimental exploration of the impacts of a treatment among those who actually experienced it, serves solid analytic and programmatic purposes by validating program logic and pinpointing potential problem areas in implementation.

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 resources and motivation to remain on track for graduation. High school graduation should then give her the opportunity to get a good job and earn enough to leave welfare. As portrayed in Figure 2.2, it is reasonable to investigate persistence in school chiefly among younger teens and outcomes such as graduation and economic self-sufficiency only among older teens.

**Figure 2.2: Expected Process and Timing of Successful Outcomes**




In order to assess whether the treatments that teens are subject to significantly alter their educational outcomes, five approaches are used. We contrast first the outcomes for teens exposed to the "full" Cal-Learn treatments—case management coupled with financial incentives—with the outcomes for teens assigned to receive neither case management nor incentives. This contrast approximates what would be the results of a classic two-group evaluation in which Cal-Learn was compared to a no-treatment control group. The second approach distinguishes the effects of case management from the effects of Cal-Learn incentives. Outcomes for teens in the two case-managed groups are compared to outcomes for the non-case-managed groups in order to assess the impacts of case management. Analogously, teens in the financial incentives groups are compared to teens not subject to incentives, to assess the extent to which bonuses and sanctions influence participants' outcomes.

Third, the impacts of case management and financial incentives are explored further through comparisons between single research groups. To discern the effects of case management, we contrast the Case Management Only group to the No Treatment group, and the Full Cal-Learn group to the Financial Incentives Only group. To identify the effects of incentives, we contrast the Financial Incentives Only group to the No Treatment group, and the Full Cal-Learn group to the Case Management Only group. In these first three sections, the statistical tests used are independent-samples t-tests. We report differences significant at the 0.10 level or better. This is appropriate because this report is based on less data than will be available for the final report. We are attempting in this report to identify patterns that may reach conventional levels of statistical significance in the future.

In the fourth 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 saw a case manager and believed they were subject to financial incentives, Financial Only participants who did not see a case manager and who believed they were subject to financial incentives, and so on. Outcomes for these restricted groups are compared to each other, as upper-bound estimates of what might be possible if all teens were fully brought into both treatment components of the Cal-Learn program. Finally, a multiple logistic regression estimates the effects of each of the three intervention conditions compared to the No Treatment group on probabilities of graduating or earning a GED with geographic and demographic characteristics included as controls.

Analysis of the Cal-Learn teens' economic outcomes are limited because at this point in the evaluation, few are old enough to have attained economic self-sufficiency. We compare the four different research groups of exited Cal-Learn teens, and subsamples defined in other ways, on measures of employment and welfare receipt.

## Evaluation Samples

As discussed earlier in this chapter, teens were randomized continuously into the research groups between the last quarter of 1994 and June of 1997. For a number of reasons, however, not every teen who was initially randomized is included in the interim evaluation. Figure 2.3 identifies, for measures drawn from the county administrative data and the Retrospective Survey, the criteria used to select the appropriate samples for the interim report.

**Figure 2.3: Criteria for Inclusion of Cal-Learn Teens in the Interim Evaluation Samples**

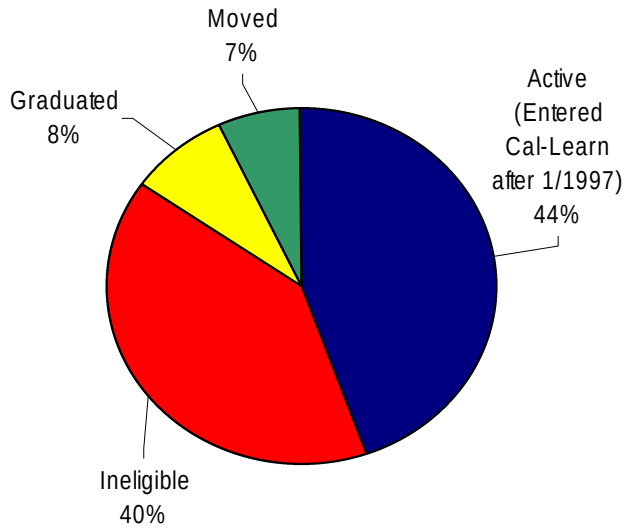
- Indicators drawn from County administrative data files
  - Included in "first round" Baseline and Monthly Program Participation Files.
  - Not subsequently identified as registered in error.
  - At least six months of Cal-Learn participation prior to June 1997
    - Administrative data do not indicate graduation within six months.
    - At least six months of exposure prior to loss of AFDC eligibility.
    - At least six months of exposure prior to moving to non-research county.
    - Cal-Learn enrollment by January 1997.

- Indicators drawn from Retrospective Survey
  - Included in "first round" Baseline and Monthly Program Participation Files.
  - Not subsequently identified as registered in error.
  - At least six months of Cal-Learn participation prior to interview.

Selection of the interim sample was based on the analysis files created by UC DATA for use both in the evaluation and for public use. These files were created over a period of two years, and represent a significant paring of the teens from those originally randomized by the counties.[2] All cases that have been identified as registered in error at the point of file creation have been permanently removed from the sample, as have teens who after several months of data processing were found to be ineligible to participate in the evaluation.

The second group of teens dropped from the interim evaluation consists of teens with fewer than six months of participation in Cal-Learn as of the end of the county administrative data period. Because the randomization of teens continued through June of 1997, teens randomized after January of 1997 cannot have the requisite six months of exposure. Most of these teens, while not included in the interim evaluation, will be active in Cal-Learn for 6 months by the time of the final evaluation, and will be included at that time. Other teens with inadequate exposure have exited Cal-Learn after less than six months and may never return to the Cal-Learn program in one of the four research counties. This latter group includes teens who graduate in the six months following Cal-Learn enrollment, teens who become a non-custodial parent, teens who terminate their pregnancy, teens who move to a non-research county or out of state, and teens who lose eligibility for cash aid or choose to leave cash aid. As Figure 2.4 illustrates, of the teens removed from the interim evaluation because of insufficient Cal-Learn exposure, about 44% remained Cal-Learn active in June of 1997, about 4 in 10 were no longer eligible for Cal-Learn, largely due to loss of cash aid, and the remainder of teens had either moved to a non-research county or graduated.

**Figure 2.4: Status of Teens With Fewer Than 6 Months of Exposure by June of 1997**

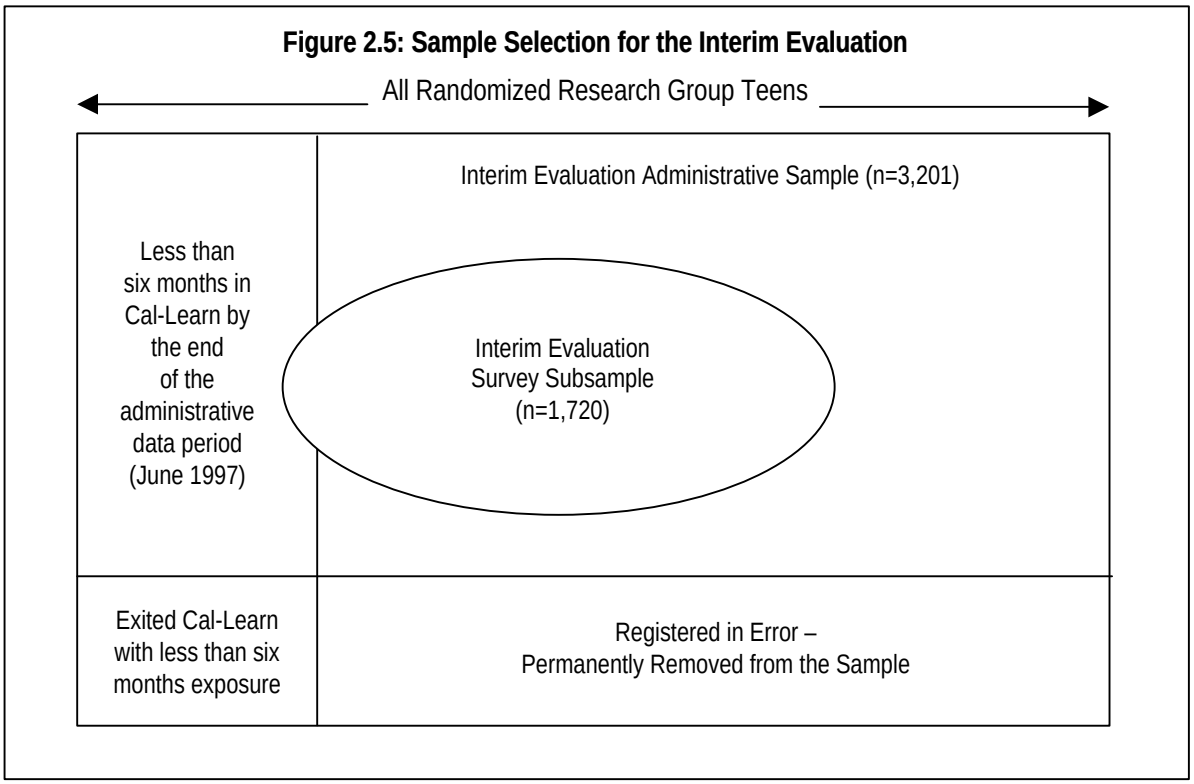



SOURCE: County administrative data

Figure 2.5 identifies these groups of teens in the full sample and illustrates the overlap between that sample and the interim evaluation samples. Analyses and comparisons based on the full interim administrative sample include 3,201 teens; and analyses relying on survey data are based on the self-report of 1,720 teens. The selection of teens for interim evaluation does not significantly alter the proportion of teens drawn from the four counties, nor the proportion of teens which fall into each research group.

The county administrative data are available on a monthly basis for the entire period that a teen is in Cal-Learn through June of 1997. In contrast, the Retrospective Survey reflects a teen's experiences at and prior to a single point in time. Because of this difference in timing, the amount of exposure to Cal-Learn that a teen has is likely to differ between the two sources, as may the outcomes reported in those data. A teen who, for example, graduates after June of 1997 (as did about 10% of the teens who reported graduating) and who is interviewed after that graduation will be listed as a graduate in the survey data, but not in the administrative data. A teen who, alternatively, graduates in May of 1997, but who was interviewed in January of that year will be identified as a non-graduate in the survey data, but a graduate in the administrative data.

**Figure 2.5: Sample Selection for the Interim Evaluation**




The issue of data source specific sample selection is of particular importance for the interim evaluation for two reasons:
1) graduations end a teen's participation in Cal-Learn, hence graduations in the first six months serve to remove a teen from the evaluation sample, and;
2) the two sources of information about graduations, a central outcome measure for Cal-Learn, differ substantially in rates of graduation reported.

The contrast, validation, and interpretation of graduation data is discussed in depth later. At this point we note only that various different samples of teens are used in this evaluation. Teens who reported that they graduated within six months of their Cal-Learn enrollment data are removed from analyses of the survey data, but if (as often happens) the administrative data do not show these same teens as graduated then they remain in the sample of data from the administrative files.

# III. CHARACTERISTICS OF THE EVALUATION SAMPLES

This chapter describes the characteristics of the teens participating in the Cal-Learn evaluation. Demographic profiles of the teens at their point of entry into Cal-Learn are presented first, followed by data on their program participation.

## Demographic Characteristics

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 lead 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.

The research design allows for multiple comparisons among the treatments, alone and in combination. To simplify the search for characteristics that may differ among the groups, and hence may require controls, three contrasts were routinely examined and tested for statistically significant differences. The first contrast compares the teens who were assigned to received case management services and were subject to the financial incentives (the Full Cal-Learn group) to teens who were assigned to the group that received neither case management services nor financial incentives (the No Treatment group). The statistical significance of differences between those groups is denoted in the tables as *Full vs. NT*. The second contrast, with significant differences noted in the column labeled *CM vs. No CM*, compares teens in both of the groups who were assigned to receive case management with those teens in the two groups who were not assigned to case management. The third contrast, whose significant differences are noted in the *Fin vs. No Fin* column, compares teens in both of the groups subject to financial incentives with those teens in the two groups who were not subject to those incentives. In addition to the comparisons of baseline characteristics by research group, profiles of the samples by county may be found in Appendix F.

Because the analyses in later chapters report results for both the interim administrative sample and the subset of that sample for whom survey data are also available, comparisons of characteristics for both samples are shown. For each set of characteristics, a table showing those characteristics for the full sample is followed by the same table for the survey sample.

## Age, Race, and Language

Table 3.1A presents the characteristics of the interim administrative sample by research group. As the table shows, 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[3], and a minimum of 6 months of Cal-Learn participation was felt necessary to achieve programmatic impacts.

**Table 3.1A: Age, Race and Language**
**Characteristics at Cal-Learn Entry, Administrative Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Age at Entry*** | | | | | | | |
| Mean | 17.3 | 17.2 | 17.3 | 17.3 | | | |
| Less than 15 | 10.4 | 11.4 | 11.2 | 11.0 | | | |
| Age 16 | 21.8 | 25.2 | 25.1 | 22.1 | | | |
| Age 17 | 33.7 | 31.4 | 32.7 | 31.2 | | | |
| Age 18 | 34.3 | 32.0 | 35.1 | 35.6 | | | |
| ***Race/Ethnicity*** | | | | | | | |
| White | 22.5 | 21.5 | 23.1 | 18.2 | * | | |
| Hispanic | 48.5 | 48.8 | 48.6 | 47.8 | | | |
| Black | 24.9 | 25.7 | 25.0 | 29.4 | * | | |
| Other | 4.1 | 4.0 | 3.0 | 4.6 | | | |
| ***English Language*** | 90.9 | 90.9 | 90.6 | 91.9 | | | |
| **Sample Size** | 816 | 799 | 750 | 836 | | | |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; *≤.10.

Some statistically significant differences in race do emerge between the groups. In the aggregate sample, 48% of the teens are identified as Hispanic, 26% are black, and 21% are white, with the

remainder forming the residual "other" category. Roughly equal proportions of both Hispanics and "other" race teens are found in each of the research groups, but teens in the group receiving neither case management nor financial incentives (the No Treatment group) are slightly more likely to be black (29%) and slightly less likely to be white (18%) than teens in the other groups. No differences in the primary language of the case exists among the research groups, with English identified as the primary language for 91% of teens' cases in each group.

The subsample of teens who responded to the survey resemble those of the full sample of teens in the administrative data, at least in terms of demographics, as shown in Table 3.1B. The average age at entry differs by less than a week in aggregate. The modest difference in the proportion of teens aged 15 and younger at entry becomes large enough to achieve borderline statistical significance between case-managed and non-case-managed teens, but the lack of statistical significance in the continuous age measure and the variation in the distribution of the other age groups suggests this difference is due to chance variation.

**Table 3.1B: Age, Race and Language Characteristics at Cal-Learn Entry, Survey Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Age at Entry*** | | | | | | | |
| Mean | 17.3 | 17.2 | 17.2 | 17.3 | | | |
| Less than 15 | 9.6 | 12.2 | 13.8 | 10.0 | | ** | |
| Age 16 | 19.1 | 25.1 | 20.2 | 23.7 | | | |
| Age 17 | 35.8 | 28.2 | 34.7 | 28.8 | | | |
| Age 18 | 35.5 | 34.5 | 31.3 | 37.5 | | | |
| ***Race/Ethnicity*** | | | | | | | |
| White | 24.4 | 21.5 | 24.3 | 20.0 | | | |
| Hispanic | 47.9 | 48.2 | 48.6 | 46.5 | | | |
| Black | 24.0 | 24.8 | 23.3 | 28.4 | | | |
| Other | 3.7 | 5.4 | 3.7 | 5.1 | | | |
| ***English Language*** | 91.1 | 89.5 | 90.5 | 93.1 | | | |
| **Sample Size** | 425 | 441 | 412 | 442 | | | |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; *≤.10.

The differences noted in the racial composition of the No Treatment group in the interim administrative sample are mirrored in the interim survey sample. Slightly higher proportions of blacks and slightly lower proportions of whites are found in the No Treatment teens than in the survey sample as a whole, this group, although these differences are not statistically significant.

## Children and Case Composition

As Table 3.2A shows, about two-thirds 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. Nearly two-thirds of teens had their first child by age 16, with an average age at the birth of their first child of 16.5 years. Births at younger ages were not uncommon, though, with nearly 10% of the teens who had 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.

**Table 3.2A: Child and Case Composition**
**Characteristics at Cal-Learn Entry, Administrative Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Children at Entry*** | | | | | | | |
| Mean | 0.79 | 0.76 | 0.75 | 0.75 | | | |
| No Children | 27.2 | 29.9 | 30.0 | 30.6 | | | |
| One Child | 67.0 | 64.2 | 65.1 | 64.0 | | | |
| Two Children | 5.3 | 5.6 | 4.5 | 4.8 | | | |
| Three or More | 0.5 | 0.3 | 0.4 | 0.6 | | | |
| ***Teen's Age at Birth of*** | | | | | | | |
| First Child | 16.5 | 16.4 | 16.5 | 16.5 | | | |
| Youngest Child | 16.6 | 16.6 | 16.6 | 16.6 | | | |
| ***Age of Oldest Child*** | 0.9 | 0.9 | 0.8 | 0.9 | | | |
| ***Case Composition*** | | | | | | | |
| Federal Adults | 1.0 | 1.0 | 1.0 | 1.0 | | | |
| Federal Children | 1.5 | 1.5 | 1.5 | 1.5 | | | |
| **Sample Size** | 816 | 799 | 750 | 836 | | | |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; *≤.10.

As with the characteristics discussed earlier, teens in the interim survey sample mirror those in the administrative sample, and no significant differences emerge among the research groups for any of these measures. Profiles for these teens are shown in Table 3.2B.

**Table 3.2B: Child and Case Composition**
**Characteristics at Cal-Learn Entry, Survey Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Children at Entry*** | | | | | | | |
| Mean | 0.74 | 0.73 | 0.75 | 0.74 | | | |
| No Children | 29.8 | 30.8 | 27.6 | 31.1 | | | |
| One Child | 65.6 | 64.8 | 67.7 | 65.0 | | | |
| Two Children | 4.3 | 4.2 | 4.2 | 3.4 | | | |
| Three or More | 0.2 | 0.2 | 0.5 | 0.4 | | | |
| ***Teen's Age at Birth*** | | | | | | | |
| First Child | 16.6 | 16.5 | 16.5 | 16.5 | | | |
| Youngest Child | 16.7 | 16.6 | 16.6 | 16.6 | | | |
| ***Age of Oldest Child*** | 0.8 | 0.8 | 0.7 | 0.9 | | | |
| ***Case Composition*** | | | | | | | |
| Federal Adults | 1.0 | 1.0 | 1.0 | 1.0 | | | |
| Federal Children | 1.4 | 1.4 | 1.6 | 1.5 | | | |
| **Sample Size** | 425 | 441 | 412 | 442 | | | |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; *≤.10.

## Basis for Aid, Aid History, and Employment History

Table 3.3A indicates that 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 slightly more than 18 out of the last 36 months, and about 6.5 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. 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.

**Table 3.3A: Basis of Aid, Aid History, and Employment History Characteristics at Cal-Learn Entry, Administrative Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Months on Cash Aid*** | | | | | | | |
| In last 36 months | 17.6 | 19.1 | 18.7 | 18.3 | | * | |
| In Last 12 Months | 6.3 | 6.8 | 6.7 | 6.4 | | ** | |
| ***Percent New to Aid*** | | | | | | | |
| In Last 36 Months | 31.9 | 27.9 | 27.3 | 32.4 | ** | *** | |
| In Last 12 Months | 22.4 | 18.5 | 16.9 | 21.4 | | *** | |
| ***Aid Code at Entry*** | | | | | | | |
| Family Group | 88.9 | 90.6 | 87.7 | 89.4 | | | |
| Unemployed Parent | 11.1 | 9.4 | 12.3 | 10.6 | | | |
| ***Employed in Prior Yr*** | 13.8 | 16.0 | 17.4 | 16.9 | | | |
| **Sample Size** | 816 | 799 | 750 | 836 | | | |

SOURCE: County administrative data and Assistance History and Wage Data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; *≤.10.

No significant differences by research group are apparent for either employment history or basis for aid at entry. Small but statistically significant differences in prior aid do appear between the case managed groups and those not assigned case management. In the 36 months prior to Cal-Learn entry, teens with case management received cash aid, on average, about one month more than non-case-managed teens (19 months vs. 18 months), and averaged about a third of a month more cash aid in the 12 months prior to Cal-Learn entry. Case managed teens were also less likely to be new to aid. Slightly more than 27% had no history of cash aid until the 3 years before Cal-Learn entry, and only 17% were new to aid in the previous year, versus 32% and 22% for the non-case-managed teens. Results for the interim survey sample parallel those for the administrative sample, with no significant differences evident except in terms of aid history, with slightly higher levels of prior cash aid among teens in the case-managed groups (See Table 3.3B).

**Table 3.3B: Basis of Aid, Aid History, and Employment History Characteristics at Cal-Learn Entry, Survey Sample, by Research Group**

| | Research Group | | | | Full vs NT | CM vs No CM | Fin vs No Fin |
|---|---|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | | | |
| ***Months on Cash Aid*** | | | | | | | |
| In last 36 months | 16.6 | 19.1 | 17.2 | 18.0 | | | |
| In Last 12 Months | 6.1 | 6.7 | 6.3 | 6.3 | | | |
| ***Percent New to Aid*** | | | | | | | |
| In Last 36 Months | 31.9 | 27.9 | 27.3 | 32.4 | *** | ** | |
| In Last 12 Months | 22.4 | 18.5 | 16.9 | 21.4 | *** | *** | |
| ***Aid Code at Entry*** | | | | | | | |
| Family Group | 87.2 | 90.6 | 85.9 | 88.2 | | | |
| Unemployed Parent | 12.8 | 9.4 | 14.1 | 11.8 | | | |
| ***Employed in Prior Yr*** | 14.4 | 14.9 | 16.2 | 16.3 | | | |
| **Sample Size** | 425 | 441 | 412 | 442 | | | |

SOURCE: County administrative data and Assistance History and Wage Data
NOTE: Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$.10.

## Patterns of Program Participation

Randomization of teens into the four Cal-Learn research groups began in San Bernardino in November of 1994. In the next year, randomization of teens was initiated in the remaining three research counties: in August for Alameda, in September for San Joaquin, and in December for Los Angeles. Given the different implementation dates for randomization in the research counties, there were differences in the pace of enrollment by county: in San Bernardino, nearly half of study participants had been randomized by the end of 1995, while in San Joaquin 45% had been randomized by that date, in Alameda about 13% had been randomized, and in Los Angeles fewer than 1% of study participants had been randomized (See Table 3.4A).[4]

**Table 3.4A: Timing of Cal-Learn Entry for Research Groups Teens (Full Sample)**

| | County | | | |
|---|---|---|---|---|
| | Alameda | Los Angeles | San Bernardino | San Joaquin |
| ***Quarter of Entry*** | | | | |
| 1994: Qtr 4 | 0.0 | 0.0 | 0.5 | 0.0 |
| 1995: Qtr 1 | 0.0 | 0.0 | 5.6 | 0.0 |
| : Qtr 2 | 0.0 | 0.0 | 20.7 | 0.0 |
| : Qtr 3 | 3.7 | 0.0 | 37.2 | 9.0 |
| : Qtr 4 | 13.1 | 0.6 | 47.5 | 46.0 |
| 1996: Qtr 1 | 22.3 | 21.3 | 57.3 | 57.4 |
| : Qtr 2 | 42.4 | 39.7 | 57.3 | 57.4 |
| : Qtr 3 | 61.8 | 57.3 | 70.2 | 74.0 |
| : Qtr 4 | 77.7 | 75.9 | 81.9 | 85.4 |
| 1997: Qtr 1 | 90.1 | 88.3 | 93.8 | 95.1 |
| : Qtr 2 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Sample Size** | 573 | 1389 | 2242 | 422 |

SOURCE: County administrative data
NOTE: Figures in this table are based on the Cal-Learn sample prior to the exclusion of teens with fewer than 6 months of Cal-Learn participation.

Although the timing of entry into Cal-Learn differed by county, and—to some degree—by research group within individual counties, overall these variations do not create significant differences between research groups in the average length of time in Cal-Learn or in the timing of clients' exits from the program. As Table 3.4B indicates, 29% of the research group teens were enrolled by the end of 1995; another 51% were enrolled in 1996, and the remainder had been randomized by the end of June 1997. Teens assigned to the groups receiving case management were slightly more likely to have been enrolled by the end of 1995: 30% of teens in those groups had been randomized by that point versus 28% of non-case-managed teens.

**Table 3.4B: Timing of Cal-Learn Entry for Research Groups Teens (Full Sample)**

| | Research Group | | | |
|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment |
| ***Quarter of Entry*** | | | | |
| 1994: Qtr 4 | 0.0 | 0.2 | 0.1 | 0.7 |
| 1995: Qtr 1 | 2.7 | 2.8 | 2.6 | 2.9 |
| : Qtr 2 | 6.5 | 13.1 | 11.6 | 9.0 |
| : Qtr 3 | 19.4 | 19.6 | 19.3 | 19.1 |
| : Qtr 4 | 27.6 | 29.7 | 31.0 | 28.0 |
| 1996: Qtr 1 | 39.2 | 43.9 | 43.1 | 42.5 |
| : Qtr 2 | 48.4 | 51.4 | 50.4 | 50.7 |
| : Qtr 3 | 63.3 | 65.6 | 66.5 | 67.4 |
| : Qtr 4 | 81.6 | 77.5 | 78.2 | 82.6 |
| 1997: Qtr 1 | 94.4 | 89.8 | 91.3 | 92.0 |
| : Qtr 2 | 100.0 | 100.0 | 100.0 | 100.0 |
| **Sample Size** | 1145 | 1208 | 1130 | 1143 |

SOURCE: County administrative data
NOTE: Figures in this table are based on the Cal-Learn sample prior to the exclusion of teens with fewer than 6 months of Cal-Learn participation.

By the end of June 1997, slightly more than half of all teens who had been randomized into the study sample were no longer enrolled in Cal-Learn. Teens may exit from the Cal-Learn program for a number of reasons. Ideally, if teens remained continuously on cash aid and resided throughout the period in the research counties, teens would exit Cal-Learn only if they graduated or 'aged out'. In fact, however, many teens do lose eligibility for Cal-Learn or move to a county in which their participation and progress in Cal-Learn cannot be tracked: of those who had exited by June of 1997, slightly more than half were lost to the study for these latter reasons.

As with the timing of entry into Cal-Learn, modest differences in the percent of teens still active in June 1997 exist between the research groups, ranging from 45% among the Case Management Only group to 49% among the No Treatment group. Among the teens who were no longer active, 11% had exited by the end of 1995 and 66% had exited by the end of 1996. Excluding the teens with fewer than 6 months of Cal-Learn exposure, teens in the study averaged 11 months of active Cal-Learn participation by the end of the data collection for this interim report. Teens in the Financial Only and Case Management Only groups averaged about three weeks more exposure than teens in the Full Cal-Learn and No Treatment groups.

# PART TWO

## CAL-LEARN PROGRAM COMPONENTS AND OPERATIONS

# IV. CAL-LEARN PROCESS EVALUATION

In this chapter we provide the executive summary and policy recommendations from our separate Cal-Learn process evaluation report, *Implementation of California's Cal-Learn Demonstration Project: A Process Evaluation*, UC DATA, April 1998. This report covers the period between July 1996 and December 1997, and it provides an analysis of the operational challenges the county agencies encountered following the initial start-up period. An earlier report, covering the initial planning and implementation of the program, provides a chronological account of the program's implementation in the four demonstration counties and at the state level from June 1993 through June 1996 (*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).

This chapter describes key implementation issues and themes identified during the 1996-1997 process study period that bear on our interpretation of the interim outcome results. These issues and themes include the following: interagency coordination, client identification and declining caseloads, application of the main program components, and role of schools. It is important to note that data collection for the implementation study was limited to the four evaluation counties. Thus, the context for the implementation data at the county level is a Cal-Learn program that operated on four different models, requiring participants to be handled both administratively and personally in one of four different ways. For example, not only is identification of Cal-Learn eligibles an issue for these counties, but correctly maintaining their randomized research status and treating them accordingly was also an issue.

## Implementation Issues

### Interagency Coordination

In California, welfare programs are administered at the county level. While state-level health, education and welfare agencies work together to establish Cal-Learn program regulations and guidelines, local welfare departments and AFLP agencies carry the operational responsibilities for the program.

Cal-Learn is a complicated program for counties to operate. AFDC, GAIN, AFLP case management agencies, and schools each have separate yet interconnected functions in the operation of the program. Creating the interagency linkages and internal agency capacities for operating the program was difficult. The procedures for sharing information between agencies were hampered by multiple and incompatible computer information systems. Each agency's data system is unique. System use is generally restricted to internal staff for practical reasons as well as to protect the clients' confidentiality. Since the first report, we found that coordination issues have improved modestly between AFLPs and the schools, and had stabilized between GAIN and AFLP. Improvements in communications between AFDC and GAIN, and in the process of referring clients from AFDC to Cal-Learn, have been slowed by systemic changes within AFDC which have diverted staff attention from the Cal-Learn program.

## Client Identification and Declining Caseloads

Since the start of the program, identifying all of the Cal-Learn eligible teens has proved to be one of Cal-Learn's most significant and enduring problems. Since peaking in the spring of 1996, the statewide Cal-Learn caseload has been declining steadily. This has created difficulties for AFLP agencies who, having geared up for dramatic caseload increases just two years earlier, unexpectedly faced downsizing issues in 1997. External factors contributing to the decline in the Cal-Learn caseload include the declining teen birth rate and a substantial drop in AFDC caseloads. These declines, however, do not fully account for the drop in the Cal-Learn caseload. Obstacles internal to the operation of the program include: a lack of referral codes in the welfare administrative databases; insufficient knowledge among AFDC staff about Cal-Learn; special problems finding nested teens; and maintaining a teen's enrollment in the program after she opens her own case or otherwise cycles off and on aid. Welfare reform and systemic changes in AFDC have compounded the difficulties of finding and referring Cal-Learn eligible teens. To compensate for shortcomings in AFDC's ability to identify and refer all Cal-Learn eligible teens, AFLP agencies have expanded their outreach activities, and some GAIN programs have undertaken additional procedures to try to find Cal-Learn eligible cases.

## Bonuses and Sanctions

Cal-Learn employs financial incentives to motivate teens to complete high school. There is evidence from case manager interviews and the telephone survey of teens that clients are confused about whether they are subject to Cal-Learn sanctions. Confusion is understandable given the unavoidable delays in deducting sanctions, and the fact that sanctions are incorporated into basic grant calculations which have twice undergone changes during this report period. Generally, there is no confusion about Cal-Learn bonuses as these are issued as separate checks soon after the client turns in a report card.

Defining the due date for report cards and interpreting school performance for bonus and sanction purposes proved to be difficult because Cal-Learn teens attend a wide variety of programs with an equally vast assortment of marking periods and evaluation systems. In all counties, students enrolled in non-traditional programs sometimes receive credits for work completed rather than letter grades. The AFLP agencies developed simplified report card forms for use in school programs that did not issue traditional report cards. These forms continued to be used and introduced in new school programs throughout the course of this reporting period.

## Supportive Services

The Cal-Learn program offers financial support for child care, transportation, and ancillary expenses related to school attendance. CDSS data indicate that only about 9% of Cal-Learn teens statewide utilize child care funding. There are many reasons for this, including teens' preference for having family or friends take care of their children, the availability of on-site care in some schools, a shortage of infant care slots in some communities, and frustration with the bureaucratic process for receiving the funds. More teens, about 17% statewide, accessed Cal-Learn transportation funding. Bus passes and single ride bus tickets account for the majority of

expenditures of transportation funds. Few Cal-Learn teens (1-3%) took advantage of funding to pay for ancillary expenses such as books and supplies, and testing fees for GED exams.

## Case Management

Within the AFLP case management model there are a wide range of service delivery styles, and case managers perform a vast array of activities. What holds the model together is the shared emphasis on the overall health and well-being of teen parents, the standard caseload limit of forty clients per case manager, and the mandated use of the Lodestar forms, which serve to focus and orient the case management process toward common Cal-Learn/AFLP goals. Maintaining the integrity of the AFLP case management model in the face of the changes prescribed by Cal-Learn was a challenge for most agencies. Expansion issues, the program's new affiliation with county welfare departments, and a significant number of time-consuming tasks required of case managers put a strain on the traditional AFLP model because these additional activities left case managers with less time to focus on psychosocial, health and infant care issues. In addition, the training and education level of case managers changed in many agencies from nurses and MSW level social workers to BA-level case managers.

Of the four research counties, the AFLP agencies in San Bernardino and San Joaquin were operated by county health departments, and their case managers put relatively greater emphasis on health care issues than did the case managers in the other two counties. The AFLP agencies in Los Angeles and Alameda counties are operated by private non-profit agencies. There, the case managers tend to hold degrees in psychology or social work, and to be relatively younger and less experienced. The case managers in these two counties are more likely to have come from backgrounds similar to their clients', and they tend to be ethnically matched to their clients.

School programs for pregnant and parenting teens sometimes provide case management, or similar kinds of services to students. For example, some school-based health clinics, such as those funded through the Healthy Start program, provide comprehensive services, including case management similar to that available through Cal-Learn. However, these programs are rare and generally available only to teens who attend school. Teens who have dropped out are believed to have far less access to case management services than teens still in school.

## Schools

Cal-Learn encourages teen parents to complete high school, assuming that a high school diploma will allow them to compete in the job market and avoid welfare dependency as adults. There is concern, however, that many Cal-Learn teens are not being adequately prepared for either continuing education or the workplace. Upon visiting the schools that some Cal-Learn teens attend, we found that schools struggle to serve the often complex educational and psychosocial needs of Cal-Learn students. Consistent with national data and the literature on teen parents, Cal-Learn case managers and school staff reported to us that many of the teens in the program were school dropouts before they became pregnant, and many have very low academic skills. Moreover, teens often have to choose between comprehensive schools and alternative programs: the latter offer more in the way of flexibility and supportive services, but are generally considered academically less rigorous.

Relationships between the schools and the Cal-Learn program vary considerably from school to school, and even among staff within the same school. Some of the alternative school programs reported good relationships with Cal-Learn case managers, utilizing their services to facilitate student support groups and using them to help keep at-risk students in school. For the most part, however, schools are unaware of Cal-Learn and do not know which of their students are in the program. Even among the alternative school programs, where pregnant and parenting students tend to congregate, Cal-Learn teens constitute a minority of students. Teachers are apt to find out a student's Cal-Learn status only when a Cal-Learn student tells the teacher, or asks that teachers fill out special attendance, enrollment or report card forms.

## Chapter Summary: Cal-Learn Process Evaluation

Despite the many challenges discussed in this chapter, many more teen parents on welfare in California now have access to the services of a case manager who is knowledgeable about their needs and concerns and who can counsel and assist them to obtain needed services. Cal-Learn teens also have a guarantee of funding for their transportation and child care needs while attending school. Finally, there are now financial incentives to encourage teens to make satisfactory progress in school, and to graduate or earn a GED while in the program.

Policy recommendations include the following:

- The Cal-Learn experience suggests that program operations would benefit from better integration of the roles of different departments within county welfare offices and between county welfare and case management agencies.

- Programs like Cal-Learn should identify meaningful fiscal incentives, begin them soon after enrollment, and tie them more closely in time to actual school performance. Whereas reinforcement may be a necessary condition for behavior change, learning theorists long ago recognized that behavior change is more likely the greater the quantity and quality of the reinforcer, and the more immediate the reinforcement following behavior.

- If intensive case management is to help Cal-Learn teens with the array of problems they face as teen parents, then strengthening the ability of AFLP agencies to serve Cal-Learn clients may be needed. The Cal-Learn program placed additional responsibilities on case managers without reducing their client caseloads.

- Improving the links between schools and Cal-Learn agencies, and enhancing the ability of schools to meet the needs of pregnant and parenting teens, may improve educational outcomes for teen parents on welfare. Strengthen the connection between the case managers and the schools; and improve the services provided by schools to pregnant teens and teen parents.

# V. 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.[5] 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 are asked to report their eligibility for and receipt of bonuses and sanctions.

## Administrative Records of Bonuses and Sanctions

Administrative data on the imposition 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.

Currently, the administrative data cover the period starting with each teen's enrollment and ending with her exit from Cal-Learn or June 1997, whichever comes first. Any bonuses or sanctions imposed after June 1997 are not yet available in the administrative data. Table 5.1 shows the overall bonus and sanction rates from the administrative data as of June 1997 for the 1,615 teens in the Financial Only and Full Cal-Learn groups included in the administrative sample. About 55% 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 by research group.

**Table 5.1: Percent of Teens Receiving Bonuses and Sanctions in Administrative Data**

| Administrative Data | Research Group: Full Cal-Learn | Research Group: Financial Only | Difference |
|---|---|---|---|
| ***Teens in Financial Groups with records of:*** | | | |
| Any Bonus or Sanction | 55.8 | 54.0 | 1.8 |
| Any Bonus | 33.8 | 24.6 | 9.2*** |
| Progress Bonus | 30.2 | 21.9 | 8.3*** |
| Graduation Bonus | 7.3 | 5.3 | 2.0* |
| Sanction | 30.3 | 36.0 | -5.7** |
| **Sample Size** | 799 | 816 | |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; * ≤.10.
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 34% of Full Cal-Learn teens received some form of bonus while less than 25% of Financial Only teens ever received a bonus. The difference between the two research groups was statistically significant at the .01 level. Both progress bonuses and graduation bonuses were

more common among Full Cal-Learn teens than among Financial Only teens. Over 30% of the case managed teens received a progress bonus compared to only 22% of the teens who were eligible for only financial incentives. The Full Cal-Learn teens were also more likely to receive a graduation bonus (7%) than teens who received only financial incentives (5%), although the difference was significant only at the .10 level.

Conversely, teens in the Financial Only group were significantly more likely to receive a sanction than teens in the Full Cal-Learn group. Approximately 36% of the Financial Only teens received a sanction by June 1997 compared to only 30% of teens who were also case managed.

Some teens received a mixture of bonuses and sanctions. Of the Financial Only teens who received at least one progress bonus, 29% also received at least one sanction. A similar proportion of Full Cal-Learn teens who received a progress bonus also received a sanction (26%). However, only 17% of sanctioned Financial Only teens ever received a progress bonus while 26% of sanctioned Full Cal-Learn teens received a progress bonus.

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, Full Cal-Learn teens were more likely to receive a bonus than a sanction while teens in the Financial Only group were more likely to receive a sanction than a bonus.

### Survey Records of Bonus and Sanction Rates

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 Retrospective Survey. The survey results reported below are derived from the 1,720 teens interviewed by June 1998.[6] Since the surveys were conducted from April 1996 to June 1998, 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 June 1997 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 June 1997, the Retrospective Survey will cover a period of time longer than the administrative data. For teens interviewed prior to their exit or June 1997, 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 separate bonus check 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.[7]

Table 5.2 contains data on the receipt of financial incentives reported in the survey for the 866 teens randomized into the Full Cal-Learn and Financial Only groups. On average, 54% of teens in the two financial incentives groups reported receiving some form of financial incentive by their first interview.[8]

**Table 5.2: Percent of Teens Reporting the Receipt of Bonuses and Sanctions**

| Self-Report | Research Group: Full Cal-Learn | Research Group: Financial Only | Difference |
|---|---|---|---|
| ***Teens in Financial Groups Reporting Receipt of:*** | | | |
| Any Bonus or Sanction | 56.9 | 50.4 | 6.5** |
| Any Bonus | 39.9 | 31.5 | 8.4*** |
| Progress Bonus | 36.8 | 28.0 | 8.8*** |
| Graduation Bonus | 8.6 | 8.7 | -0.1 |
| Sanction | 24.7 | 26.1 | -1.4 |
| **Sample Size** | 441 | 425 | |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; * ≤.10.
For categorical variables, significance levels are based on chi-square tests.

Teens in the Financial Only group were only slightly more likely to report receiving a sanction (26%) than teens in the Full Cal-Learn group (25%).[9] Between-group differences in bonuses from the survey data mimic more closely the pattern found in the administrative data with 40% of Full Cal-Learn teens, but only 32% of Financial Only teens, reporting a bonus. This difference in overall bonus rates was statistically significant at the .01 level. Teens who were eligible for case management were also significantly more likely to report a progress bonus (37%) than teens who were not eligible to receive case management (28%). Unlike the administrative data however, there were no differences in reported graduation bonuses.

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. These same case managed 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

Although they are randomized into one of the four research groups, not all teens fully understand their eligibility for financial incentives or case management. This is particularly true for financial incentives. As noted in the previous section, it is clear that not all teens in the Full Cal-Learn and Financial Only research groups realize that they are subject to bonuses and sanctions based on school performance. In this section, we explore which teens fail to recognize their eligibility and why.

To assess the teens' 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 79% reported that they were eligible for at least one type of bonus or sanction. There was large variability in understanding across the two financial incentives groups. Nearly 87% of Full Cal-Learn teens reported that they were subject to some form of financial incentive compared to 71% 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 felt they could not receive bonuses or sanctions based on school performance. Of Full Cal-Learn teens, only 5% did not realize they were in Cal-Learn while 8% 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 10%. Teens who received case management in addition to financial incentives were more likely to recognize both their participation in Cal-Learn and their eligibility for financial incentives.

In addition to differences in teens' self-reported eligibility across research groups, there are also differences by type of financial incentive. Teens in both financial incentives groups were more

likely to realize their eligibility for bonuses than for sanctions. Only 65% of these teens knew they were eligible for sanctions, but 68% realized they were eligible for progress bonuses and 72% for graduation bonuses. Teens were less likely to recognize their eligibility for sanctions partly because the impact of sanctions relative to bonuses is muted for the reasons discussed earlier in this chapter.

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.

## Assessment of the Fairness and Effectiveness of Financial Incentives

All 1,720 teens surveyed 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.

### Bonuses

Teens 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 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?

Over 90% of all teens who responded to the survey felt that both the progress bonus and the graduation bonus were fair. Support for the fairness of bonuses was high across all four randomized research groups with averages across groups ranging from a low of 82% for Case Management Only teens to a high of 96% for Full Cal-Learn teens.

Table 5.3 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 **(**see Table 5.4). This difference in reported fairness was statistically significant at the .01 level.

The results for the effectiveness of bonuses are similar. Overall, 85% 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 effective.

**Table 5.3: Teens' Evaluation of the Fairness and Effectiveness of Bonuses by Research Group**

| Self-Report | Research Group | | | | All |
|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | |
| ***Fairness of Bonuses*** | | | | | |
| Progress Bonus Fair | 93.7 | 93.8 | 84.0 | 88.8 | 90.2 |
| Graduation Bonus Fair | 95.1 | 95.7 | 81.8 | 90.7 | 91.0 |
| ***Effectiveness of Bonuses*** | | | | | |
| Very Useful | 57.4 | 62.3 | 52.5 | 56.6 | 57.3 |
| Somewhat Useful | 27.8 | 23.2 | 31.6 | 26.5 | 27.2 |
| Not Too Useful | 1.5 | 1.9 | 2.0 | 1.9 | 1.8 |
| No Difference | 13.3 | 12.6 | 13.9 | 15.1 | 13.7 |
| **Sample Size** | 413 | 422 | 396 | 431 | 1662 |

SOURCE: Retrospective Survey
NOTE: Regarding the fairness and effectiveness of bonuses, 58 of the 1,720 surveyed teens either refused to answer or responded that they did not know.

**Table 5.4: Teens' Evaluation of the Fairness and Effectiveness of Bonuses**

| Self-Report | Research Group: Full Cal-Learn | Research Group: No Treatment | Difference |
|---|---|---|---|
| ***Fairness of Bonuses*** | | | |
| Progress Bonus Fair | 93.8 | 88.8 | 5.0*** |
| Graduation Bonus Fair | 95.7 | 90.7 | 5.0*** |
| ***Effectiveness of Bonuses*** | | | |
| Very Useful | 62.3 | 56.6 | |
| Somewhat Useful | 23.2 | 26.5 | * |
| Not Too Useful | 1.9 | 1.9 | |
| No Difference | 12.6 | 15.1 | |

| Self-Report | Treatment Condition: Case Mgmt | Treatment Condition: No Case Mgmt | Difference |
|---|---|---|---|
| ***Fairness of Bonuses*** | | | |
| Progress Bonus Fair | 89.1 | 91.2 | -2.1 |
| Graduation Bonus Fair | 89.0 | 92.9 | -3.9*** |
| ***Effectiveness of Bonuses*** | | | |
| Very Useful | 57.6 | 57.0 | |
| Somewhat Useful | 27.3 | 27.1 | |
| Not Too Useful | 2.0 | 1.7 | |
| No Difference | 13.2 | 14.2 | |

| Self-Report | Treatment Condition: Financial Incentives | Treatment Condition: No Incentives | Difference |
|---|---|---|---|
| ***Fairness of Bonuses*** | | | |
| Progress Bonus Fair | 93.8 | 86.5 | 7.3*** |
| Graduation Bonus Fair | 95.4 | 86.5 | 8.9*** |
| ***Effectiveness of Bonuses*** | | | |
| Very Useful | 59.9 | 54.7 | |
| Somewhat Useful | 25.5 | 28.9 | ** |
| Not Too Useful | 1.7 | 1.9 | |
| No Difference | 12.9 | 14.5 | |

SOURCE: Retrospective Survey

NOTE: Statistical significance levels are indicated as *** ≤.01; ** ≤.05; * ≤.10. For categorical variables, significance levels are based on chi-square tests. Significance levels for ordered data are based on mean ranks tests. The Case Management Treatment Condition consists of both the Full Cal-Learn and the Case Management Only research groups. The Financial Incentives Treatment Condition consists of both the Full Cal-Learn and the Financial Only research groups.

## Sanctions

Teens were also 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. 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 5.5 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 56% of the non-financial incentives groups (see Table 5.6). Differences in support for each sanction were statistically significant.

**Table 5.5: Teens' Evaluation of the Fairness and Effectiveness of Sanctions by Research Group**

| Self-Report | Research Group: Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
|---|---|---|---|---|---|
| ***Fairness of Sanctions*** | | | | | |
| Failing Report Card Fair | 59.1 | 66.3 | 54.6 | 55.4 | 58.9 |
| Out of School Fair | 60.1 | 66.0 | 56.6 | 57.2 | 60.0 |
| ***Effectiveness of Sanctions*** | | | | | |
| Very Useful | 30.0 | 30.4 | 27.6 | 26.7 | 28.7 |
| Somewhat Useful | 31.2 | 36.6 | 36.7 | 34.9 | 34.8 |
| Not Too Useful | 22.5 | 19.2 | 20.5 | 21.9 | 21.0 |
| No Difference | 16.2 | 13.8 | 15.2 | 16.5 | 15.4 |
| **Sample Size** | 413 | 421 | 395 | 430 | 1659 |

SOURCE: Retrospective Survey
NOTE: Regarding the fairness and effectiveness of bonuses, 61 of the 1,720 surveyed teens either refused to answer or responded that they did not know.

**Table 5.6: Teens' Evaluation of the Fairness and Effectiveness of Sanctions**

| Self-Report | Research Group: Full Cal-Learn | Research Group: No Treatment | Difference |
|---|---|---|---|
| ***Fairness of Sanctions*** | | | |
| Failing Report Card | 66.3 | 55.4 | 10.9*** |
| Out of School | 66.0 | 57.2 | 8.8* |
| ***Effectiveness of Sanction*** | | | |
| Very Useful | 30.4 | 26.7 | |
| Somewhat Useful | 36.6 | 34.9 | ** |
| Not Too Useful | 19.2 | 21.9 | |
| No Difference | 13.8 | 16.5 | |

| Self-Report | Treatment Condition: Case Mgmt | Treatment Condition: No Case Mgmt | Difference |
|---|---|---|---|
| ***Fairness of Sanctions*** | | | |
| Failing Report Card Fair | 60.6 | 57.2 | 3.4 |
| Out of School Fair | 61.5 | 58.6 | 2.9 |
| **Effectiveness of Bonuses** | | | |
| Very Useful | 29.0 | 28.4 | |
| Somewhat Useful | 36.6 | 33.1 | |
| Not Too Useful | 19.9 | 22.2 | |
| No Difference | 14.5 | 16.4 | |

| Self-Report | Treatment Condition: Financial Incentives | Treatment Condition: No Incentives | Difference |
|---|---|---|---|
| ***Fairness of Sanctions*** | | | |
| Failing Report Card Fair | 62.7 | 55.0 | 7.7*** |
| Out of School Fair | 63.1 | 56.9 | 6.2*** |
| ***Effectiveness of Sanctions*** | | | |
| Very Useful | 30.2 | 27.2 | |
| Somewhat Useful | 33.9 | 35.8 | |
| Not Too Useful | 20.9 | 21.2 | |
| No Difference | 15.0 | 15.9 | |

SOURCE: Retrospective Survey

NOTE: Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$.10. For categorical variables, significance levels are based on chi-square tests. Significance levels for ordered data are based on mean ranks tests. The Case Management Treatment Condition consists of both the Full Cal-Learn and the Case Management Only research groups. The 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 27% of the non-financial incentives groups.

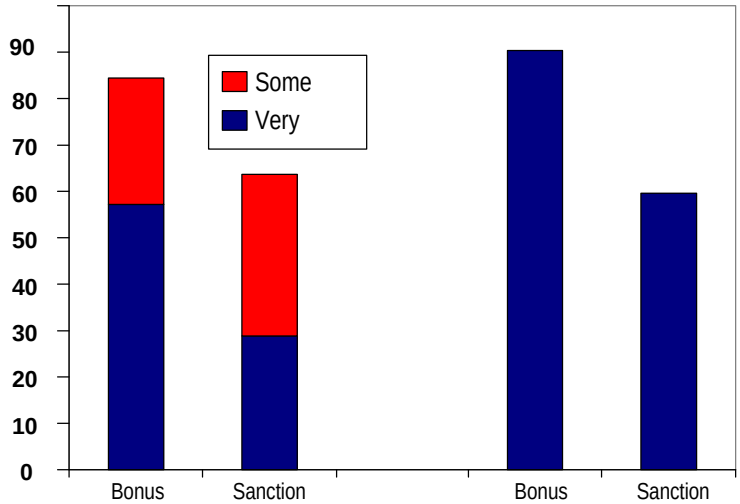
As with bonuses, the strongest support for both the fairness and effectiveness of sanctions was found among the Full Cal-Learn teens.

## Summary of the Fairness and Effectiveness of Financial Incentives

Figure 5.1 summarizes the teens' evaluation of the fairness and effectiveness of financial incentives. Note that while the Cal-Learn research design does not allow us to distinguish the effects of bonuses and sanctions separately using an objective measure, this graph summarizes the teens' evaluation of each incentive type individually.

The graph shows strong overall support for financial incentives. On average, 85-90% of all surveyed teens felt that bonuses were useful and fair; however, only 60% 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.

**Figure 5.1: Teens' Evaluation of the Usefulness and Fairness of Bonuses and Sanctions**




SOURCE: Retrospective Survey

## Chapter Summary: Cal-Learn Financial Incentives—Application and Experiences

- Administrative data indicate that a majority (55%) 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 (34%) than teens in the Financial Only group (25%). Teens in the Full Cal-Learn group were also significantly less likely to receive a sanction (30%) than teens in the Financial Only group (36%).

- The findings from the survey data on receipt of financial incentives mimic the results found in the administrative data. A majority (54%) of teens experienced financial incentives with Full Cal-Learn teens experiencing more bonuses and fewer sanctions than teens in the Financial Only group.

- Although the survey data indicate that a majority (78%) of teens in the two financial incentives groups recognized their eligibility for financial incentives, knowledge of eligibility was substantially stronger among case managed teens (87%) than teens subject only to financial incentives (71%).

- A majority of teens 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.

# VI. 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. In particular, it 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. As with the receipt of financial incentives, we draw on both administrative and survey sources for data on case manager contact.

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 AFLPs. The Lodestar Contacts data were collected only from mid-1996 to June 1997.

The Retrospective Survey provides 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. Surveyed 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

Note that the surveys were conducted from April 1996 to June 1998, so the period covered by the survey is not equivalent to that covered by the Lodestar Contacts data. Nevertheless, the survey results reinforce the findings from the administrative data.

## Administrative Records of Case Manager Contacts

Data on contacts between teens and their AFLP 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 June 1997, whichever comes first. Due to the short 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, 1,250 were randomized into one of the two case managed groups and are included in the analysis for this section. These 1,250 teens included in the Lodestar sample represent 81% 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 89% 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: 84% of case managed teens had personal contact with their case managers.

Table 6.1 shows the relative prevalence of the contact types listed above. The most common forms of personal contact were home visits (66%) and phone contact (76%), while the most prevalent form of non-personal contact was correspondence (71%).

**Table 6.1: Percent of Teens with Case Manager Contacts by Contact Type**

| Type of Contact | Research Group: Full Cal-Learn | Research Group: Case Mgmt Only | Difference |
|---|---|---|---|
| **Any Contact** | 89.6 | 88.6 | 1.0 |
| **Any Personal Contact** | 84.4 | 83.5 | 0.9 |
| Home Visit | 67.3 | 64.3 | 3.0 |
| Office Visit | 27.0 | 22.4 | 4.6* |
| Field Visit | 20.0 | 17.6 | 2.4 |
| Group Meeting | 1.2 | 1.8 | -0.6 |
| Phone Contact | 77.6 | 74.1 | 3.5 |
| **Non-Personal Contact** | | | |
| Collateral Facilitation | 58.0 | 56.1 | 1.9 |
| Correspondence | 71.6 | 70.8 | 0.8 |
| **Sample Size** | 655 | 595 | |

SOURCE: Lodestar Data
NOTE: Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$. 10. For categorical variables, significance levels are based on chi-square tests.

In Table 6.1, case manager contacts are also detailed by research group. The Full Cal-Learn group received more case manager contact, both personal and non-personal, than the Case Management Only group. Full Cal-Learn teens were also slightly more likely to receive each type of contact except group meetings, but these differences were not substantial and generally not statistically significant.

## Frequency and Timing of Case Manager Contact

The frequency of case manager contact varies over the course of a teen's participation in Cal-Learn. Due to the timing issue related to the Lodestar Contacts File, the data source may contain information about a teen's contacts only early in her participation or only in the later months; for some teens, no contacts information is available in Lodestar.

As described earlier in this report, the timing of entry of teens does not vary substantially by research group nor does the average number of months that teens are active in Cal-Learn.

However, 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 teens in the Lodestar Contacts File who had at least one case manager contact, those at the beginning of their Cal-Learn participation tend to have slightly higher levels of case management contact after their first quarter. In the first quarter, teens have an average of 1.6 contacts per month with their case managers. By the second quarter, teens have contact nearly twice a month. For the next three quarters, contacts settle to an average of 1.7 contacts per month. Some further decline is evident in the sixth and seventh quarters of participation; however, due to the fairly short period of observation for this data source and therefore the relatively few observations, it is unclear if this later change represents a true decline in the frequency of case manager contact.

There were no discernible differences across the two case managed research groups in the frequency and timing of case manager contact.

## Self-Report on the Provision and Effectiveness of Case Management

In addition to administrative sources on case manager contact, the Retrospective Survey provides supplementary insight on teens' experiences with and evaluation of case management. Data from these two sources are not strictly comparable because the sample periods differ as do the set of teens included in each data source.[10]

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. Not all case managed teens recognized they were in Cal-Learn and/or eligible for case management. Therefore, the results regarding the effectiveness of case managers apply only to the 742 teens randomized into the two case managed groups who realized that they were in Cal-Learn and that they had a case manager; these 742 teens represent 87% of the teens randomized into the two case-managed groups. Of these 742 teens, 624 also had Lodestar data on case manager contacts.

### Self-Report of Experiences with Case Management

To assess the teens' understanding of the provision of case management, surveyed teens were asked the following questions:

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

Surveyed 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 87% of teens in the case managed groups knew that they were in Cal-Learn and that they had case managers.

By research group, the results are similar to those for financial incentives. More of the Full Cal-Learn teens (91%) knew they were in Cal-Learn and had case managers than teens in the Financial Only group (83%). Although the numbers are quite high for both groups, teens in the Full Cal-Learn group were both more likely to know they were in Cal-Learn and to know they had a case manager. Of the 9% of Full Cal-Learn teens who did not know they were in Cal-Learn and had case managers, 5% did not know they were in Cal-Learn and 4% did not know they had case managers. The corresponding percentages for Case Management Only teens are 11% and 6%.

## Frequency and Timing of Case Management

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 case manager are included in the following two tables, but are assumed to have not met or spoken with their case managers.

The first three questions focus on teens who reported that they were still enrolled in Cal-Learn or that they had left during the previous month. The fourth question was asked only of teens who exited Cal-Learn more than a month ago.

### Currently in Cal-Learn or Exited in the Previous Month

Teens currently in Cal-Learn or recently exited were asked about the frequency of case manager meetings and phone contacts within the previous month. They were also asked how many times they met with their case managers during the previous three months.

Case Manager Meetings in Previous Month

ASKED IF CURRENTLY IN CAL-LEARN. ASKED IF IN CAL-LEARN IN THE PAST, BUT LEFT IN THE PREVIOUS MONTH. 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.

Case Manager Phone Contact in Previous Month

ASKED IF CURRENTLY IN CAL-LEARN. ASKED IF IN CAL-LEARN IN THE PAST, BUT LEFT IN THE PREVIOUS MONTH. 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.

Case Manager Meetings in Previous 3 Months

ASKED IF CURRENTLY IN CAL-LEARN. ASKED IF IN CAL-LEARN IN THE PAST, BUT LEFT IN THE PREVIOUS MONTH.

IF MET MORE THAN ONCE IN PREVIOUS MONTH. Now thinking back over the LAST THREE MONTHS—including (PREVIOUS MONTH)—how many times did you meet in person with (a/your) case manager?

IF DID NOT MEET IN PREVIOUS MONTH. Now thinking back over the LAST THREE MONTHS—how many times did you meet in person with (a/your) case manager?

Approximately two-thirds of the surveyed case managed teens who were still in Cal-Learn or who had exited during the previous month reported that they had met with their case manager at least once in the previous month (See Table 6.2). The results by research group were similar: 69% of the Full Cal-Learn group versus 62% 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. Differences between the two research groups were not statistically significant.

Nearly 70% 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 somewhat higher among Full Cal-Learn teens (75%) than Case Management Only teens (64%). Full Cal-Learn teens also had a slightly higher average number of phone contacts during the previous month (2.6) than Case Management Only teens (2.2). While Full Cal-Learn teens were significantly more likely to report having phone contact during the past month, there were no significant differences in the frequency of that contact.

**Table 6.2: Percent of Teens Currently or Recently in Cal-Learn Reporting Case Manager Contacts**

| Reported Contacts | Research Group: Full Cal-Learn | Research Group: Case Mgmt Only | Difference |
|---|---|---|---|
| **During Previous Month** | | | |
| *Case Manager Meetings* | | | |
| Percent of Teens | 68.5 | 62.2 | 6.3 |
| Number of Meetings | 1.1 | 1.0 | 0.1 |
| *Case Manager Phone Calls* | | | |
| Percent of Teens | 74.8 | 64.1 | 10.7*** |
| Number of Phone Calls | 2.6 | 2.2 | 0.4 |
| **During Previous 3 Months** | | | |
| *Case Manager Meetings* | | | |
| Percent of Teens | 88.3 | 80.7 | 7.6** |
| Number of Meetings | 3.1 | 2.8 | 0.3 |
| **Sample Size** | 300 | 289 | |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** ≤ .01; ** ≤ .05; * ≤ .10. For categorical variables, significance levels are based on chi-square tests.

Nearly 85% of these same teens reported meeting with their case manager at least once during the previous three months. Full Cal-Learn teens (88%) were more likely to meet with their case managers during the previous three months than Case Management Only teens (81%). Full Cal-Learn teens also report meeting more frequently with their case managers during this period with an average of 3.1 meetings versus only 2.8 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 somewhat 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.

Exited Cal-Learn More than 1 Month Ago

Case Manager Meetings During Cal-Learn Participation

ASKED IF WAS IN CAL-LEARN IN PAST AND LEFT MORE THAN ONE MONTH AGO. 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 80% reported meeting with their case manager during their participation in Cal-Learn. The results differed significantly by research group with 88% of the Full Cal-Learn group reporting meetings compared to only 70% of the Case Management Only teens (See Table 6.3).

These teens reported meeting with their case managers an average of approximately five times during their Cal-Learn participation. The average number of meetings was higher for Full Cal-Learn teens (5.7%) than Case Management Only teens (4.4%). The difference in the average number of contacts was significant only at the .10 level.

**Table 6.3: Percent of Exited Teens Reporting Case Manager Contacts**

| Reported Contacts | Research Group: Full Cal-Learn | Research Group: Case Mgmt Only | Difference |
|---|---|---|---|
| During Cal-Learn Participation | | | |
| Case Manager Meetings | | | |
| Percent of Teens | 88.2 | 70.3 | 17.9*** |
| Number of Meetings | 5.7 | 4.4 | 1.3* |
| **Sample Size** | 132 | 114 | |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** ≤ .01; ** ≤ .05; * ≤ .10. For categorical variables, significance levels are based on chi-square tests.

## Provision of Case Management

In addition to the frequency of case manager contact, 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 were 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

## Effectiveness of Overall Case Management

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

> ASKED IF RESPONDENT HAD CASE MANAGER. IF CURRENTLY IN CAL-LEARN: Taking everything into consideration, how much has having a case manager helped you? A lot, some, a little, or not at all?
>
> ASKED IF RESPONDENT HAD CASE MANAGER. IF IN CAL-LEARN IN THE PAST: Taking everything into consideration, how much did having a case manager help you? A lot, some, a little, or not at all?

Table 6.4 shows that a majority of case managed teens 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, 60% of teens, reported that their case managers helped them "A Lot" compared to 45% of the Case Management Only teens.

**Table 6.4: Teens' Evaluation of the Effectiveness of Case Manager Assistance**

| Self-Report | Research Group: Full Cal-Learn | Research Group: Case Mgmt Only | Difference |
|---|---|---|---|
| ***Overall Case Management*** | | | |
| Case Manager Helped: | | | |
| A Lot | 59.6 | 44.7 | |
| Some | 21.3 | 27.4 | |
| A Little | 9.5 | 15.3 | ** |
| Not at All | 9.5 | 12.6 | |
| ***Sample Size*** | 399 | 340 | |
| ***School-Related Help*** | | | |
| Case Manager Helped: | | | |
| A Lot | 43.1 | 31.7 | |
| Some | 27.7 | 25.6 | |
| A Little | 15.5 | 18.5 | *** |
| Not at All | 13.7 | 24.2 | |
| **Sample Size** | 343 | 281 | |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** ≤ .01; ** ≤ .05; * ≤ .10. Significance levels for ordered data are based on mean ranks tests.

## 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.

> ASKED IF HAS/HAD A CASE MANAGER AND IN SCHOOL. ASKED IF HAS/HAD CASE MANAGER AND NOT IN SCHOOL, BUT HAS DONE SOME SCHOOL SINCE CAL-LEARN ENROLLMENT DATE. IF IN SCHOOL OR INDEPENDENT STUDY, OR ON SUMMER BREAK: 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?
>
> IF IN A GED PROGRAM: 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 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 (32%).

## 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.[11] 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 VII.

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.

Child Care

> ASKED IF RECEIVED PAID CHILD CARE AND HAD A CASE MANAGER. 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?

While supportive services usage was low among Cal-Learn teens, over a quarter of surveyed case managed teens reported receiving child care paid for by Cal-Learn or the welfare department. This applies only to the surveyed case managed teens who knew they had a case manager. Of these teens, a majority reported that their Cal-Learn case manager helped them

obtain paid child care: 60% of the Full Cal-Learn group and 72% of the Case Management Only group (See Table 6.5).

**Table 6.5: Case Manager Help With Obtaining Supportive Services**

| Reported Help | Research Group: Full Cal-Learn | Research Group: Case Mgmt Only | Difference |
|---|---|---|---|
| ***Child Care*** | | | |
| Case Manager Helped | 60.4 | 72.2 | -11.8 |
| **Sample Size** | 111 | 79 | |
| ***Transportation*** | | | |
| Case Manager Helped | 77.9 | 80.1 | -2.2* |
| **Sample Size** | 244 | 171 | |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** ≤ .01; ** ≤ .05; * ≤. 10. For categorical variables, significance levels are based on chi-square tests.

Transportation money or bus passes

> ASKED IF RECEIVED TRANSPORTATION MONEY OR BUS PASSES AND HAD A CASE MANAGER. 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?

A majority of these teens reported receiving transportation money or bus passes (See Table 6.5). Of the case managed teens who reported having a case manager, 415 also reported receiving transportation money or bus passes. As with child care, a majority of teens who reported receiving transportation money or bus passes reported that their Cal-Learn case manager helped them get this service. Approximately 78% of the Full Cal-Learn group and 80% of the Case Management Only group reported that their case manager helped them get transportation money or bus passes.

## 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 (52%) of these teens reported that, overall, having a case manager helped them "A Lot" and an additional quarter (25%) 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 38% also reported that case managers helped them with school related issues "A Lot", and 27% reported that case managers helped them "Some". Of the subset that reported receipt of child care 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.

### Chapter Summary: Cal-Learn Case Management—Application and Experiences

- Administrative (Lodestar) data indicate that 89% of case managed teens experienced some form of case manager contact, and nearly as many teens (84%) had personal contact with their case manager.

- According to the Lodestar data, teens received an average of 1.5 to 2.0 monthly contacts during the first seven quarters of Cal-Learn participation.

- 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 87% 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.

- Survey data reinforce the administrative finding that most case managed teens experienced personal case manager contact. Of teens currently or recently in Cal-Learn, nearly 85% reported meeting with a case manager within the last 3 months and about two-thirds had met with a case manager within the previous month. Approximately 70% had phone contact within the previous month.

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

- Most case-managed teens found their case managers helpful. About three-fourths (77%) 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 (65%) of teens who had some schooling during their participation in Cal-Learn reported that their case manager helped them "A Lot" or "Some". Among teens who believed they had received either child care or transportation funding from Cal-Learn or the welfare department, a large majority said their case manager helped them gain access to these services.

# VII. CAL-LEARN SUPPORTIVE SERVICES: PROVISION AND RECEIPT

## Introduction

In contrast to financial incentives and case management, 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 child care 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 child care funding.

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

As with the receipt of financial incentives and case management discussed in previous chapters, 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 June 1997, whichever comes first. Due to data collection issues, administrative data regarding receipt of supportive services were not available for the majority of Cal-Learn teens from San Joaquin County. Of the 301 teens from San Joaquin who were included in the interim administrative sample, data were unavailable for 268 teens.

The Retrospective Survey includes questions regarding 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 survey 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. 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 Usage of Supportive Services

The administrative data include records of all payments made to teens for supportive services. Based on these records, we can derive utilization of supportive services for our interim administrative sample as of the end of the administrative data in June 1997.[12] 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 7.1 shows levels of receipt of the three supportive services detailed by research group. Approximately 42% of the interim 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 63% of the Full Cal-Learn group and 55% of the Case Management Only group had received at least one supportive service. Receipt among non-case managed teens was much lower with only 31% of the Financial Only group and 20% of the No Treatment group receiving some service. The difference in receipt between case managed and non-case managed teens was significant at the .01 level (see Table 7.2). 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 7.1: Percent of Teens With Receipt of Supportive Services by Research Group**

| | Research Group | | | | |
|---|---|---|---|---|---|
| **Administrative Data** | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
| ***Supportive Services*** | | | | | |
| Any Supportive Service | 31.3 | 63.4 | 55.1 | 19.8 | 42.1 |
| Child Care | 12.2 | 19.5 | 16.1 | 9.5 | 14.3 |
| Transportation | 24.1 | 56.6 | 48.4 | 15.8 | 36.0 |
| Ancillary Expenses | 14.2 | 22.8 | 15.0 | 4.8 | 14.2 |
| **Sample Size** | 747 | 749 | 688 | 749 | 2933 |

SOURCE: County administrative data

On average, only 14% of all teens had child care paid for by Cal-Learn. There were significant differences across the four research groups. Nearly 18% of case managed teens had child care paid for by Cal-Learn while only 11% of the non-case managed teens did so. This difference was statistically significant at the .01 level. The highest usage was found among Full Cal-Learn teens where 20% of teens received funding from Cal-Learn for child care.

**Table 7.2: Receipt of Supportive Services**

| Administrative Data | Research Group: Full Cal-Learn | Research Group: No Treatment | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 63.4 | 19.8 | 43.6*** |
| Child Care | 19.5 | 9.5 | 10.0*** |
| Transportation | 56.6 | 15.8 | 40.8*** |
| Ancillary Expenses | 22.8 | 4.8 | 18.0*** |

| Administrative Data | Treatment Condition: Case Mgmt | Treatment Condition: No Case Mgmt | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 59.4 | 25.5 | 33.9*** |
| Child Care | 17.9 | 10.8 | 7.1*** |
| Transportation | 52.7 | 19.9 | 32.8*** |
| Ancillary Expenses | 19.1 | 9.5 | 9.6*** |

| Administrative Data | Treatment Condition: Financial Incentives | Treatment Condition: No Incentives | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 47.4 | 36.7 | 10.7*** |
| Child Care | 15.8 | 12.7 | 3.1*** |
| Transportation | 40.4 | 31.4 | 9.0*** |
| Ancillary Expenses | 18.5 | 9.7 | 8.8*** |

SOURCE: County administrative data
NOTE: Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$. 10. For categorical variables, significance levels are based on chi-square tests.

Transportation was the most popular supportive service with 36% 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 (53%) received transportation funding relative to non-case managed teens (20%). Nearly 57% of Full Cal-Learn teens used this service.

Although ancillary expenses was the least commonly used supportive service, there were still significant differences across research groups. Only 14% of teens received ancillary expense payments as of June 1997: 19% of case managed teens and 10% 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 23% of Full Cal-learn teens received payments for ancillary expenses

In sum, administrative data indicate that utilization of supportive services was quite low, ranging from just over 14% for ancillary expenses to 36% 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 Usage 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:

Child Care

> ASKED IF WAS IN CAL-LEARN IN PAST: When you were in Cal-Learn, did you get any child care that was paid for by Cal-Learn or the welfare department?
>
> ASKED IF CURRENTLY IN CAL-LEARN: Since you've been in Cal-Learn, did you get any child care that was paid for by Cal-Learn or the welfare department?

Transportation

> ASKED IF WAS IN CAL-LEARN IN PAST: When you were in Cal-Learn, did you get any bus passes or money for transportation?
>
> ASKED IF CURRENTLY IN CAL-LEARN: Since you've been in Cal-Learn did you get any bus passes or money for transportation?

Under the above assumptions, approximately 42% of surveyed teens reported receiving at least one supportive service. A majority of case managed teens, just over 55%, reported receipt compared to only 28% of non-case managed teens. This difference was significant at the .01 level (see Table 7.4). As in the administrative data, the Full Cal-Learn teens had the highest receipt, followed by the Case Management Only teens. The Financial Only group had lower

usage than the two case managed groups, but nevertheless reported higher usage than the No Treatment group. The difference in receipt between teens eligible for financial incentives and ineligible teens was also significant, but this difference in reported use of supportive services was smaller the difference between teens eligible for case management and those who were not.

**Table 7.3: Percent of Teens Reporting Receipt of Supportive Services by Research Group**

| | Research Group | | | | |
|---|---|---|---|---|---|
| **Self-Report** | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
| Any Supportive Service | 31.8 | 61.5 | 48.8 | 24.4 | 41.6 |
| Child Care | 17.4 | 25.6 | 19.4 | 14.0 | 19.1 |
| Transportation | 27.1 | 56.9 | 43.7 | 18.8 | 36.6 |
| **Sample Size** | 425 | 441 | 412 | 442 | 1720 |

SOURCE: Retrospective Survey

Reported receipt of each supportive service follows the pattern found in the administrative data. Table 7.3 shows that the use of child care was substantially lower than that of transportation: 19% of the survey sample reported receiving child care and 37% reported receiving transportation funding. By research group, we again find the same pattern as in the administrative data. Full Cal-Learn teens reported using both child care and transportation funding most often, followed by Case Management Only teens, and then by Financial Only teens. The No Treatment Group reported the lowest usage for each service.

Table 7.4 shows that receipt of child care differed substantially across research groups and treatment conditions. Case managed teens (23%) were significantly more likely to use this service than non-case managed teens (16%). Full Cal-Learn teens reported the highest use with over one quarter of the teens reporting receipt.

**Table 7.4: Reported Receipt of Supportive Services**

| Self-Report | Research Group: Full Cal-Learn | Research Group: No Treatment | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 61.5 | 24.4 | 37.1*** |
| Child Care | 25.6 | 14.0 | 11.6*** |
| Transportation | 56.9 | 18.8 | 38.1*** |

| Self-Report | Treatment Condition: Case Mgmt | Treatment Condition: No Case Mgmt | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 55.3 | 28.0 | 27.3*** |
| Child Care | 22.6 | 15.7 | 6.9*** |
| Transportation | 50.5 | 22.8 | 27.7*** |

| Self-Report | Treatment Condition: Financial Incentives | Treatment Condition: No Incentives | Difference |
|---|---|---|---|
| *Supportive Services* | | | |
| Any Supportive Service | 46.9 | 36.2 | 10.7*** |
| Child Care | 21.6 | 16.6 | 5.0*** |
| Transportation | 42.3 | 30.3 | 12.0*** |

SOURCE: Retrospective Survey
NOTE: Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$. 10. For categorical variables, significance levels are based on chi-square tests.

Although usage was higher for transportation, the pattern of results is similar. Nearly 51% of the case managed teens reported using this service compared to less than 23% of non-case managed teens. Again, the difference was significant at the .01 level. The highest usage was among the Full Cal-Learn group (57%).

Although both the sample and sample period differ across data sources, 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. Teens subject to financial incentives were also significantly more likely to report use of supportive services than teens who were not subject to financial incentives; however, this difference was smaller than the difference between teens eligible for case management and those who were not.

## 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 42% of the participants had at least one recorded expenditure for a supportive service prior to the end of the administrative data collection period (June 1997).

- Transportation was the most frequently used service paid for by the Cal-Learn program with 36% of the teens taking advantage of available transportation money and bus passes. Child care and ancillary services were each used by less than 15% of the sample.

- 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.

- Survey data 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.

# PART THREE

# INTERIM CAL-LEARN TREATMENT EFFECTS

# VIII. IMPACTS ON SCHOOL ENROLLMENT, GRADUATION, AND GED ATTAINMENT

## Introduction

In this chapter, the impacts of the randomized treatments on educational outcomes for teens in Cal-Learn are presented. This section provides an introduction to the outcomes measures and the analytic approach used in this interim evaluation. The next section discusses in more detail the dependent variables—the measures of graduation and school persistence—used to evaluate educational outcomes. The third section provides estimates of the effects of the Cal-Learn treatments on graduations and school persistence, and tests whether the treatments, alone and in combination, are associated with significantly different outcomes. The fourth section of the chapter presents exploratory data on what might be the maximum possible treatment impacts under ideal conditions (i.e., when teens are fully aware of the financial consequences of compliance and non-compliance, and take advantage of the *offer* of AFLP case management). The fifth and final section reports the result of comparisons of the impacts of treatments which statistically controls for geographic and socio-demographic factors.

The reader should bear in mind that the results reported in this chapter are interim results. Fewer than half of the Cal-Learn evaluation participants had reached the age of nineteen when the interim data collection ended, and even fewer were aged twenty or over. Since many of the teenage parents who ultimately earn diplomas do so after the typical graduation age, the graduation rates reported in the final report (when participants will be older) are likely to be higher than the ones reported here, and differences between research groups may also change.

Four educational outcomes were examined: whether a participant had graduated from high school, had received a GED, had successfully completed school with either a GED or a regular diploma, or had either graduated or was still in school (i.e., had not dropped out of high school prior to completing a degree). Initial comparisons of these outcomes are presented for all respondents. Because we are more likely to observe program effects, especially graduations, among older rather than younger teens, we also present analyses limited to respondents age 19 and older. Graduations reported in administrative records and from self-report are examined separately. Graduation records from administrative sources were found to be inadequate for evaluation purposes therefore subsequent analyses are based on data from the Retrospective Survey.

Rates of graduation reported in the survey data are compared in three ways. First, we assess the impact of Full Cal-Learn compared to No Treatment. This contrast represents what might have been the evaluation outcomes had the experiment been designed as a two-group experiment (statewide Cal-Learn program vs. control group), rather than a four-group experiment. Next, we investigate the impacts of case management and financial incentives separately. The outcomes for the two groups assigned to case management are compared to outcomes for the two groups not assigned to case management; analogous comparisons are performed for the financial incentives groups. These pairwise comparisons can be thought of as estimates of the main effect of each treatment in a classic two-factor experiment. They are appropriate here because we did not find a statistically significant interaction between the two treatments.

Our last approach is to compare each of the individual treatments, Case Management Only or Financial Incentives Only, to the No Treatment condition. These comparisons are most relevant when the pairwise main-effects contrasts are heavily influenced by the impact of the Full Cal-Learn condition, in which case management and financial incentives are combined. This analytic approach is also what would be used if the three intervention conditions were simply thought of as three distinct and unrelated treatments, each an alternative to no treatment.

Analyses in the fourth section, in which we project possible impacts under ideal conditions, are prompted by the observation that 17% of the teens randomly assigned to case management do not report ever meeting with a case manager, 21% of the teens assigned to financial incentives report their belief that they are not eligible for any bonuses or sanctions, and 35% of the teens not assigned to financial incentives believed that they were subject to either bonuses or sanctions. This portion of the study provides some preliminary estimates of what the program effects might be if all participants assigned to case management saw a case manager, and if all participants assigned to bonuses and sanctions knew of the incentives. The fifth and final section reports the result of a multiple logistic regression model which controls for geographic and socio-demographic factors in addition to the respondent's assigned treatment within the experiment.

## Outcome Variables

The Cal-Learn legislation identified three types of graduations by which a participant could earn a graduation bonus and exit from Cal-Learn: a high school diploma, 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, this qualification 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 our administrative data, only one bonus has been awarded for passing the CHSPE. It is not uncommon for participants to take the CHSPE exam—some 11% of survey respondents report passing the exam—but these participants do not seek or receive a bonus, and neither do they exit Cal-Learn after passing the CHSPE. Anecdotal evidence suggests that some schools use the CHSPE as an assessment tool, rather than as a replacement for graduation. Because of how the CHSPE seems to be used in practice, it is not used in this evaluation as one of the graduation outcomes 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, which are self-reported, the administrative data in the welfare and case management systems reflect reported graduations that have been verified with information from the school. Case managers can verify the graduation for their clients and submit documentation to the welfare office; otherwise, teens without case managers must bring their diploma or GED certificate to their welfare worker themselves.

In addition to encouraging graduations and GEDs, another purpose of the Cal-Learn program is to prevent dropping out among recipients. In this study, students are coded as having dropped out of high school if at the time of interview they are neither enrolled in school nor on summer break, and they do not have a GED or a high school diploma. Ongoing high school attendance is

not recorded in the administrative data, so only the survey data can be used to assess dropout rates.

Overall, the graduation rates among the young mothers participating in this program are low, at least according to the data available for this interim report. Among survey respondents age nineteen and over, 11% reported earning a high school diploma, 9% a GED, and 20% were still in school. The majority (61%) had left school without graduating.

## Contrasts Among Groups

### Administrative Data

The proportion of Cal-Learn participants that had graduations recorded in the administrative data are shown for each of the four randomized groups in Table 8.1. Based on these data, the Full Cal-Learn group, the Financial Only group and the Case Management Only group all had significantly higher proportions graduated than the No Treatment group did. The relative advantage of belonging to those groups is more marked among the teens age 19 and over, who were most likely to have graduated.

**Table 8.1: Percent of Teens With a High School Graduation or a GED Recorded in Welfare/GAIN Administrative Data by Research Group**

| Schooling Status | Research Group: Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
|---|---|---|---|---|---|
| ***All Respondents*** | | | | | |
| Graduated or GED | 8.1 | 10.9 | 6.9 | 2.2 | 7.0 |
| **Sample Size** | 816 | 799 | 750 | 836 | 3201 |
| ***Respondents age 19 and over*** | | | | | |
| Graduated or GED | 11.4 | 17.7 | 8.6 | 2.1 | 9.7 |
| **Sample Size** | 299 | 299 | 303 | 337 | 1238 |

SOURCE: County administrative data

Unfortunately, because graduations appear to be incompletely and inconsistently reported in the administrative data, the data in Table 8.1—which could be taken as evidence for the efficacy of the interventions—are probably erroneous. Table 8.2 shows the results when we try to match graduations recorded in the administrative data to graduations reported in the survey. The sample for these comparisons includes only graduations for which confirmation could be expected based on the period of data coverage in the two sources. We attempt to confirm administrative graduations if teens are interviewed after the recorded graduation date, and to validate survey graduations if administrative data exist after the self-reported graduation date.[13]

These comparisons reveal that for many of the graduations reported in the survey, matches cannot be found in the administrative data (top panel of Table 8.2). There is no evidence, however, of over-recording in the administrative data. As the second panel of Table 8.2 shows, virtually all graduations (96%) in the administrative data which occur prior to a survey interview are also reported in the survey. It appears that graduations are under-recorded in the administrative data, or over-reported in the survey data, or both.

**Table 8.2: Graduations and GEDs Recorded in the Administrative Data and Reported in the Survey Data**

| Graduations or GEDs reported in administrative or survey data | Research Group: Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
|---|---|---|---|---|---|
| Percent of "survey" graduations also reported in administrative data | 48.4 | 49.0 | 52.4 | 9.2 | 37.6 |
| Number of "survey" graduations to be matched to administrative data (number in sample) | 62 | 49 | 63 | 76 | 250 |
| Percent of "administrative" graduations also reported in survey | 96.7 | 95.8 | 97.0 | 85.7 | 95.9 |
| Number of "administrative" graduations to be matched to survey data (number in sample) | 60 | 48 | 23 | 17 | 148 |

SOURCE: Retrospective Survey and County administrative data

It is troubling that such a large proportion of the graduations reported in the survey are absent from the administrative data. The data suggest that even participants who believed that they were eligible for graduation bonuses apparently failed to have their graduations recorded. One explanation is that teens did not realize that they had to record the graduation with their welfare worker, but instead thought it would happen automatically. Another possible explanation is simply that the barriers to reporting, in time spent and inconvenience, were too high. Yet another interpretation is that survey respondents falsely reported to the interviewers that they had graduated because graduation is a socially desirable status. It would be advisable to validate the graduations reported in the survey against school records, but legal, administrative and practical barriers have so far made this impossible.

Given the small numbers of graduations available for these comparisons, one should ignore most of the apparent differences between research groups in the proportions of graduations confirmed. However, it is important to note the strikingly large discrepancy between survey and administrative graduations in the No Treatment group. Fewer than one-tenth of the graduations reported in the survey for this group appear in the administrative data. By contrast, in the other research groups about half of the graduations reported in the survey are also in the administrative data.

If the mismatch in graduations resulted from under-recording in the administrative data, the higher level of under-recording for the No Treatment group is intuitively plausible; this group had the smallest incentive and, perhaps, least opportunity to have their graduations officially recorded. Participants subject to bonuses and sanctions had a financial incentive to report graduations, while the case managers would record the graduations of the participants under their care. Respondents in the No Treatment group had no financial incentive to report a graduation and no case manager to urge them to do it or to do it for them. The alternative interpretation, that graduations are over-reported in the survey, does not explain the differing levels of mismatches between research groups.

If, as it appears, the graduations of No Treatment teens are recorded in the administrative data less frequently than are the graduations of other groups, one implication is that the administrative data are seriously flawed as a data source for any comparisons of graduation outcomes across groups. Consequently, all the analyses of education outcomes that follow are conducted using the survey data alone.

## Comparisons Across the Randomized Groups: Survey Data

The first contrast reported is a straightforward overall program effectiveness measure, comparing Full Cal-Learn teens to teens receiving no intervention. Participants randomized to the Full Cal-Learn program graduate at higher rates than participants in the No Treatment group (Table 8.3). Among respondents age 19 and over, more than 26% of the Full Cal-Learn group graduated or earned GEDs, compared to less than 16% of the No Treatment group. This difference of nearly eleven percentage points, which is significant at the .05 level, reflects both more high school diplomas (a non-significant between-group difference of 4 percentage points) and more GEDs (a between-group difference of 7 percentage points significant only at the .10 level). This higher graduation rate is only partially translated into a lower dropout rate; the net impact on dropouts is not statistically significant.

Among respondents of all ages, the difference in graduation rates is 3 percentage points, 13% for the Full Cal-Learn group compared to 10% for the No Treatment group, and not statistically significant. This gain is mainly due to a statistically significant 2.7 percentage point difference in GEDs.

To place these Cal-Learn effects in context, the evaluation of the LEAP program in Ohio also found GED acquisition rates 2.7 percentage points higher among treatment teens (of all ages), but graduation from high school 0.6 percentage points *lower*, than among no treatment controls.[14] In our sample, graduations were 0.7 percentage points higher, but the difference was not statistically significant.

**Table 8.3: Percent of Full Cal-Learn and No Treatment Groups Who Have Graduated from High School, or Received a GED, or Not Dropped Out**

| | Research Group | | |
|---|---|---|---|
| **Schooling Status** | Full Cal-Learn | No Treatment | Difference |
| ***All Respondents*** | | | |
| Graduated | 7.7 | 7.0 | 0.7 |
| GED | 5.3 | 2.5 | 2.7*** |
| Graduated or GED | 12.9 | 9.5 | 3.4 |
| Not Dropped Out | 58.3 | 54.8 | 3.5 |
| **Sample Size** | 441 | 442 | |
| ***Respondents age 19 and over*** | | | |
| Graduated | 14.0 | 10.1 | 3.9 |
| GED | 12.4 | 5.5 | 6.9* |
| Graduated or GED | 26.4 | 15.6 | 10.8** |
| Not Dropped Out | 38.8 | 35.2 | 3.7 |
| **Sample Size** | 121 | 128 | |

SOURCE: Retrospective Survey
NOTE: Independent samples t-tests; Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$.10.

The two treatment conditions considered separately were not associated with as large an effect on graduations and GEDs as was the Full Cal-Learn treatment. Case-managed teens age nineteen and over were four percentage points more likely to graduate or get a GED than the non-case-managed teens (Table 8.4), although the difference is not statistically significant. The four percentage points gain in graduations among case-managed teens is attributable almost entirely to higher GED receipt rates, and this gain in GEDs is offset by lower proportions still in school.

Among teens age nineteen and over, the financial incentives groups had significantly more graduations and GEDs, a difference of seven percentage points, than the groups without financial incentives (Table 8.5). The gain in graduations is not simply a more rapid acquisition of degrees at the expense of persistence in school; rather, the dropout rate is also lower by four percentage points among teens subject to financial incentives. One interpretation of these findings is that financial incentives may have prompted some of the teens to persist in school and to seek regular diplomas rather than GEDs, perhaps because during the period before they graduate they are eligible for the progress bonuses.

**Table 8.4: Percent of Teens in Case Managed and Non-Case Managed Groups Who Have Graduated from High School, Received a GED, or Not Dropped Out**

| Schooling Status | Treatment Condition: Case Mgmt | Treatment Condition: No Case Mgmt | Difference |
|---|---|---|---|
| ***All Respondents*** | | | |
| Graduated | 7.9 | 7.8 | 0.1 |
| GED | 4.7 | 3.7 | 1.0 |
| Graduated or GED | 12.5 | 11.4 | 1.1 |
| Not Dropped Out | 57.9 | 56.6 | 1.3 |
| **Sample Size** | 853 | 867 | |
| ***Respondents age 19 and over*** | | | |
| Graduated | 10.9 | 10.7 | 0.2 |
| GED | 11.3 | 7.5 | 3.8 |
| Graduated or GED | 22.3 | 18.2 | 4.1 |
| Not Dropped Out | 40.6 | 40.3 | 0.3 |
| **Sample Size** | 229 | 253 | |

SOURCE: Retrospective Survey

NOTE: Independent samples t-tests; Statistical significance levels are indicated as *** $\leq$ .01; ** $\leq$ .05; * $\leq$.10.

**Table 8.5: Percent of Teens in Groups Eligible and Ineligible for Financial Incentives Who Have Graduated from High School, Received a GED, or Not Dropped Out**

| Schooling Status | Treatment Condition: Financial Incentives | Treatment Condition: No Incentives | Difference |
|---|---|---|---|
| ***All Respondents*** | | | |
| Graduated | 8.1 | 7.5 | 0.6 |
| GED | 5.1 | 3.3 | 1.8 * |
| Graduated or GED | 13.2 | 10.8 | 2.4 |
| Not Dropped Out | 58.4 | 56.1 | 2.3 |
| **Sample Size** | 866 | 854 | |
| ***Respondents age 19 and over*** | | | |
| Graduated | 12.6 | 8.9 | 3.7 |
| GED | 11.0 | 7.6 | 3.3 |
| Graduated or GED | 23.6 | 16.5 | 7.1 * |
| Not Dropped Out | 42.3 | 38.6 | 3.7 |
| **Sample Size** | 246 | 236 | |

SOURCE: Retrospective Survey
NOTE: Independent samples t-tests; Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$.10.

So far, comparisons have been presented for the Full Cal-Learn group compared to the No Treatment group, and for the overall impacts of case management and financial incentives aggregated across pairs of cells. An alternative way to assess the impacts of case management and financial incentives on educational outcomes is to compare separately the Case Management Only and Financial Incentives Only groups to the No Treatment group. This approach would be required if there were a statistically significant interaction between the two interventions when they combine in the Full Cal-Learn treatment. In fact, the outcomes for the Full Cal-Learn group are better, but not significantly so, than would be predicted from the sum of the effects of each of the treatments assessed separately. It is possible that in analyses with more data for the final report the estimated interaction between case management and financial incentives will be statistically significant. If so, then we should estimate the difference on a group-by-group basis, comparing outcomes for each of the three intervention conditions to the No Treatment condition as is shown here in Tables 8.6 and 8.7.

Table 8.6 shows the outcomes for participants age 19 and over in each research group. Table 8.7 shows the differences between the No Treatment group and the Case Management Only or Financial Only group, as well as the differences between those two groups and the Full Cal-Learn condition. (The Full Cal-Learn – No Treatment contrast was already reported in Table 8.3).

**Table 8.6: Percent of Each Research Group Who Have Graduated from High School, Received a GED, or Not Dropped Out**

| | Research Group | | | |
|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment |
| ***Respondents age 19 and over*** | | | | |
| Graduated | 11.2 | 14.0 | 7.4 | 10.1 |
| GED | 9.6 | 12.4 | 10.2 | 5.5 |
| Graduated or GED | 20.8 | 26.4 | 17.6 | 15.6 |
| Not Dropped Out | 45.6 | 38.8 | 42.6 | 35.2 |
| **Sample Size** | 125 | 121 | 108 | 128 |

SOURCE: Retrospective Survey

As Table 8.7 shows, the impact of incentives and case management in combination on graduations or graduations/GEDs is more powerful than either of the interventions separately, and appears to be greater even than the sum of the separate treatments. Financial incentives increase graduation rates, and they increase them more for teens already receiving case management (9%) than they do for teens not receiving case management (5%). By the same token, case management increases graduations, and the increase is larger if case management is provided to teens already getting financial incentives (6%) than it is for teens who are not already getting financial incentives (2%). Finally, as Table 8.3 shows, the difference between Full Cal-Learn and No Treatment in graduations/GEDs is 11%, which is larger than the sum of the Financial Incentives / No Treatment difference of 5%, plus the Case Management / No Treatment difference of 2%. The interaction of case management and financial incentives is not statistically significant in either a logistic regression equation or ANOVA, but the data suggest that the effect of the combined treatment should be tested for future reports.[15]

**Table 8.7: Effect of Treatment Components, Alone and In Combination, on Educational Outcomes for Respondents Age 19 and Over**

| | Financial Incentives | | Case Management | |
|---|---|---|---|---|
| | Financial Only vs. No Treatment | Full C-L vs. CM Only | CM Only vs. No Treatment | Full C-L vs. Financial Only |
| ***Educational Outcome*** | | | | |
| Graduated | 1.1 | 6.6 | -2.7 | 2.8 |
| GED | 4.1 | 2.2 | 4.7 | 2.8 |
| Graduated or GED | 5.2 | 8.8 | 2.0 | 5.6 |
| Not Dropped Out | 10.4* | -3.8 | 7.4 | -6.8 |

SOURCE: Retrospective Survey
NOTE: Independent samples t-tests; Statistical significance levels are indicated as *** $\leq$.01; ** $\leq$.05; * $\leq$.10.

It seems plausible that while financial incentives alone might be effective for certain students, case management is critical to the success of others, while for a third group it is the combination of the treatments that make the difference. This possibility is consistent with findings in earlier chapters of this report, which show greater understanding, approval and use of the Cal-Learn program among the Full Cal-Learn group than other research groups. Seeing a case manager and knowing that one is eligible for bonuses and sanctions are both strongly associated with graduating, and the combination of the two might be powerful because case managers reinforce the bonuses and sanctions, while students facing bonuses and sanctions are motivated to work with a case manager.

In sum, Case Management Only and Financial Incentives Only are both associated with more, but not statistically significantly more, graduations than the No Treatment condition. When case management and financial incentives are combined in the Full Cal-Learn treatment, GEDs and graduations are higher by nearly eleven percentage points relative to the No Treatment group. The difference is statistically significant. Among teens in the Full Cal-Learn group, 14% had high school diplomas and 12% had GEDs, for a total of more than 26% completing school. Among teens in the No Treatment group, 10% had high school diplomas and 6% had GEDs, for a total of nearly 16% completing school.

## Program Effects Under Ideal Implementation

This section explores what might be the maximum possible treatment impacts if the interventions were fully implemented and fully experienced by recipients. The analysis that follows is prompted by the observation that 17% of the teens randomly assigned to case management do not report ever meeting with a case manager, 21% of the teens assigned to financial incentives report in the survey that they are not eligible for any bonuses or sanctions, and 35% of the teens not assigned to financial incentives believed that they were subject to either bonuses or

sanctions. The complexity of the evaluation and its implementation in four counties while the rest of the state was operating the full Cal-Learn program may have led to confusion among participants about the treatments they were facing. If none of the experimental variants of the full Cal-Learn program existed, participants' knowledge of the incentives and their use of case management might be better because they would not be confused by knowing other teenage parents assigned to different treatment conditions. This is an important evaluation issue: program effects are diluted if participants are confused about whether they are subject to an intervention or do not take advantage of the resources it provides.

The results in this section should not be considered impacts that could ever be achieved in the real world, even were Cal-Learn to be implemented fully and optimally. Rather, they are an upper bound on what is likely to be possible with this program. They assume, first, that it is even possible to have all teens in a program meet with a case manager or understand the incentives they face. A second, less plausible, assumption is that the non-participant teens who would be brought into implementation in this ideal world would behave the same way as the teens who did actually experience the interventions in this experiment.[16]

While most of the survey respondents, particularly those in the three treatment conditions, realized they were in Cal-Learn, the research groups differed in the extent to which their perceptions of the treatments they were receiving matched their randomly assigned treatments (Table 8.8). Assignment to the case management condition is considered to be matched by self-report if the teen reports having seen her case manager, while assignment to the financial incentive condition is considered to be matched by self-report if the teens believes she is eligible for bonuses or sanctions based on school attendance and achievement. We determine whether the teens' perceptions match her random assignment group based on the following. Teens in the Full Cal-Learn group who report seeing a case manager and believe that they are subject to at least one of the financial incentives were considered to be correct in their perceptions of their treatment condition. Teens in the Financial Only group were considered to be correct if they believe that they are subject to financial incentives and report that they have not seen a case manager. Teens in the Case Management Only group who report seeing a case manager and do not believe they are subject to any financial incentives have a correct perception of their intervention. Finally, for teens in the No Treatment group to be correct in their perceived treatment, they must either say they are not in Cal-Learn or that they are neither subject to financial incentives nor saw a case manager.

Only about forty percent of the respondents in the Financial Incentives Only and Case Management Only conditions reported receiving the matching treatment. These proportions are low because many respondents in the Case Management Only group erroneously think they are also eligible for financial incentives and, analogously, many teens in the Financial Only group also report seeing a case manager. About sixty percent of the No Treatment group had experiences that matched their assignment: they either believed they were not in Cal Learn or they believed they had not experienced either of the treatments. In contrast, nearly eighty percent of the teens in the Full Cal-Learn condition had, as intended, seen a case manager and also believed they were eligible for bonuses or sanctions. This suggests that the full Cal-Learn program is operating among most participants as it is intended to, at least if the four research

counties are representative of the entire state. Most participants in the full program both know that they are eligible for incentives and have seen a case manager.

**Table 8.8: Percent of Teens Whose Reported Treatment Matches Their Randomized Condition by Research Group**

| | Research Group | | | | All |
|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | |
| ***All Respondents*** | | | | | |
| Percent in randomized group who say they got the matching treatment | 42.4 | 79.1 | 39.3 | 61.8 | 56.0 |
| **Sample Size** | 425 | 441 | 412 | 442 | 1720 |
| ***Respondents age 19 and over*** | | | | | |
| Percent in randomized group who say they got the matching treatment | 40.0 | 74.4 | 40.7 | 62.5 | 54.8 |
| **Sample Size** | 125 | 121 | 108 | 128 | 482 |

SOURCE: Retrospective Survey

Table 8.9 summarizes the educational outcomes for respondents age nineteen and over in the four randomized groups, and in randomized groups restricted to those who received matching treatments. These results demonstrate two important points. First, graduation rates for the subset of the randomized groups that match their assigned treatments are different than graduation rates for the full groups. It does matter that a teen is aware of, and thinks she is receiving, the treatment to which she is assigned. Program effects for the two case-managed groups are larger when the sample is restricted to teens who believe they received the intervention. Among the two groups assigned to financial incentives, good outcomes are more likely if the teens believe that they are subject to those incentives. However, among the Financial Only group, graduation rates are lowered when those who say they have seen a case manager are excluded, and the overall result is that the matched group graduates at a lower rate than the unrestricted group. Finally, the No Treatment group has many fewer graduates if it is confined to two groups: those who did not see a case manager and did not believe they could get a bonus or sanction and those who did not think they were in Cal-Learn.

The second important result is that teens assigned to the No Treatment group who did not experience either of the treatments, a circumstance that presumably would have described all California teen parents prior to Cal-Learn, graduate and persist in school at a substantially lower rate than virtually all other groups of teens. Only 13% of this group report earning a diploma or GED. Almost all of the contrasts relative to the No Treatment group that can be calculated from Table 8.9 are statistically significant, whether the intervention teens are categorized by their randomized treatment only, or by the combination of their randomized and reported treatment.

The contrast between the No Treatment matched group and the Full Cal-Learn group is striking: 26% of the randomized Full Cal-Learn teens and 29% of the matched Full Cal-Learn teens report graduating compared to 16% of the randomized No Treatment group and 13% of the matched No Treatment teens.

**Table 8.9: Graduations from High School, GEDs and Not Dropping Out: Randomized Research Groups and "Ideal" Research Groups**

| ***Respondents age 19 and over*** | Number in Sample | Pct Graduated or GED | Pct Not Dropped Out |
|---|---|---|---|
| Assigned to Financial Only condition | 125 | 20.8 | 45.6 |
| Assigned to Financial Only, believes gets incentives and did not report seeing a CM | 50 | 18.0 | 54.0 |
| Assigned to Full Cal-Learn | 121 | 26.4 | 38.8 |
| Assigned to Full Cal-Learn and saw a case manager and believes gets financial incentives | 90 | 28.9 | 42.2 |
| Assigned to Case Management Only | 108 | 17.6 | 42.6 |
| Assigned to CM Only and saw a case manager and did not think she gets financial incentives | 44 | 31.8 | 50.0 |
| Assigned to No Treatment | 128 | 15.6 | 35.2 |
| Assigned to No Treatment and did not see a CM and does not believe gets financial incentives | 80 | 12.5 | 27.5 |

SOURCE: Retrospective Survey

## Multivariate Analysis

Table 8.10 reports the results of a multiple logistic regression model conducted on the sample of respondents age nineteen and over, with graduation or GED receipt as the dependent variable. The purpose of this model is two-fold. First, it tests the three intervention conditions—Full Cal-Learn, Case Management Only and Financial Only—against the No Treatment condition, to see which, if any, of these treatments have a statistically significant impact. This regression expands our knowledge about which aspects of the Cal-Learn program are most effective.

Second, the model incorporates statistical controls for some variables that could be hypothesized to affect graduation rates independent of the Cal-Learn program. County of residence, for example, might have an independent effect on graduations due either to the county's social and economic environment or due to the way the county implemented the Cal-Learn program or evaluation. Demographic variables also might influence graduation rates. Additionally, in some circumstances a multivariate regression model provides greater statistical power than bivariate

analyses and therefore the effects of the three interventions might be estimated with greater precision in this regression model than in the bivariate comparisons. Since the added control variables are similarly distributed across the four research conditions there was no reason to expect that including them would alter our previous conclusions about the differences between the research groups in their graduation rates, and, in fact, the conclusions do not change.

The controls, or covariates, are: age at interview, months of participation in the evaluation, county of residence, speaking a language other than English, race and ethnicity, and whether the respondent was already a mother at Cal-Learn enrollment. Age in years is included because older individuals have had more time to complete high school. Months of program participation is included to assess the possible presence of a "dose" effect, with more Cal-Learn exposure increasing the likelihood of graduating; and county of residence controls for the economic, educational, social, and programmatic characteristics of each of the counties. Race and ethnicity are included because other research has shown graduation rates to vary along these dimensions. Finally, respondents who were already mothers at Cal-Learn enrollment might have already experienced setbacks in their education as a result of early childbearing before they entered the program, while respondents who were not yet mothers but only pregnant might have been less educationally disadvantaged at entry. Absent from the model are analyses that control for participants' prior experiences in school and in the welfare program, as well as more detailed descriptors of her family background, attachment to school, and so forth. Analyses that include these characteristics are planned for the final report.

Among the control variables, only being Asian or Filipina is a statistically significant predictor of graduation in this model; Asian and Filipina participants graduate at higher rates than do Latinas.

**Table 8.10: Logistic Regression Predicting Graduation or GED Among Survey Respondents Age Nineteen and Over**

| Characteristic | Beta | Exp(Beta) | Std. Error | p-value |
|---|---|---|---|---|
| ***Cal-Learn Experience*** | | | | |
| Number of active months | 0.02 | 1.02 | 0.03 | 0.46 |
| ***Counties*** | | | | |
| Los Angeles | -0.45 | 0.63 | 0.29 | 0.11 |
| Alameda | -0.85 | 0.43 | 0.54 | 0.12 |
| San Joaquin | 0.29 | 1.33 | 0.35 | 0.42 |
| San Bernardino (reference category) | —- | — | — | — |
| ***Demographic*** | | | | |
| Age at interview | -0.15 | 0.86 | 0.30 | 0.61 |
| Primary language not English | -0.76 | 0.47 | 0.60 | 0.20 |
| African American | 0.22 | 1.24 | 0.34 | 0.52 |
| Asian or Filipino | 1.66 | 5.24 | 0.65 | 0.01** |
| Other race/ethnicity | 0.30 | 1.35 | 0.64 | 0.63 |
| White | -0.03 | 0.97 | 0.31 | 0.92 |
| Hispanic/Latino (reference category) | — | — | — | — |
| Already a mother at C-L entry | 0.28 | 1.32 | 0.25 | 0.25 |
| ***Cal-Learn Research Groups*** | | | | |
| Financial Only | 0.40 | 1.49 | 0.34 | 0.24 |
| Case Management Only | 0.16 | 1.18 | 0.36 | 0.65 |
| Full Cal-Learn | 0.66 | 1.93 | 0.33 | 0.04** |
| No Treatment (reference category) | — | — | — | — |

SOURCE: Retrospective Survey and County administrative data.
NOTE: Independent samples t-tests; Statistical significance levels are indicated as ***≤.01, **≤.05, *≤.10.

The regression coefficients for the experimental program treatments measure the effects of being in these conditions as compared to being in the No Treatment group. Only the Full Cal-Learn treatment is statistically significant, meaning that teens in this group are significantly more likely than the No Treatment group to graduate or earn GEDs. Being in the Full Cal-Learn group nearly doubles a woman's odds of graduating. For example, if without the program she had started with a 16% chance of graduating, her chances with the program go up to 27%. This latter

effect, estimated from the multiple regression model, is virtually identical to the simple difference in graduations between No Treatment (16% graduating/GED) and Full Cal-Learn (26% graduating/GED) observed for participants age nineteen and over (see Table 8.3), and the level of statistical significance is also similar. This is a reassuring, but unsurprising, consonance between results using different statistical models. It indicates that our results describing the effects of Cal-Learn are robust, and are not dependent on idiosyncratic approaches to the data. This result is, however, based on interim data and reflects only the minority of Cal-Learn participants who have reached the age of nineteen. The final report will provide a more reliable report of program effects based on a larger sample and a longer period of program implementation.

**Chapter Summary: Impacts of School Enrollment, Graduation & GED Attainment**

- The analyses presented in this chapter suggest that the Full Cal-Learn condition is more effective for educational outcomes than either financial incentives alone, or case management alone, and is associated with significantly more graduations and GEDs than the No Treatment group. Among respondents age 19 and over, 26% of those randomly assigned to the Full Cal-Learn group have graduated or earned GEDs, compared to 21% of those in the Financial Only group, 18% of those in the Case Management Only group and 16% of those in the No Treatment group.

- Both treatments—case management and financial incentives—contribute to the overall effectiveness of the Full Cal-Learn treatment.

- The program appears to achieve its ends by convincing most participants that they are, indeed, subject to bonuses and sanctions and by inducing most of them to work with a case manager. Eighty-seven percent of Full Cal-Learn respondents believe they are subject to at least one of the financial incentives and 83% report seeing a case manager.

- Participants who believe they are subject to financial incentives or have seen a case manager have substantially higher rates of graduation or GED than clients who do not.

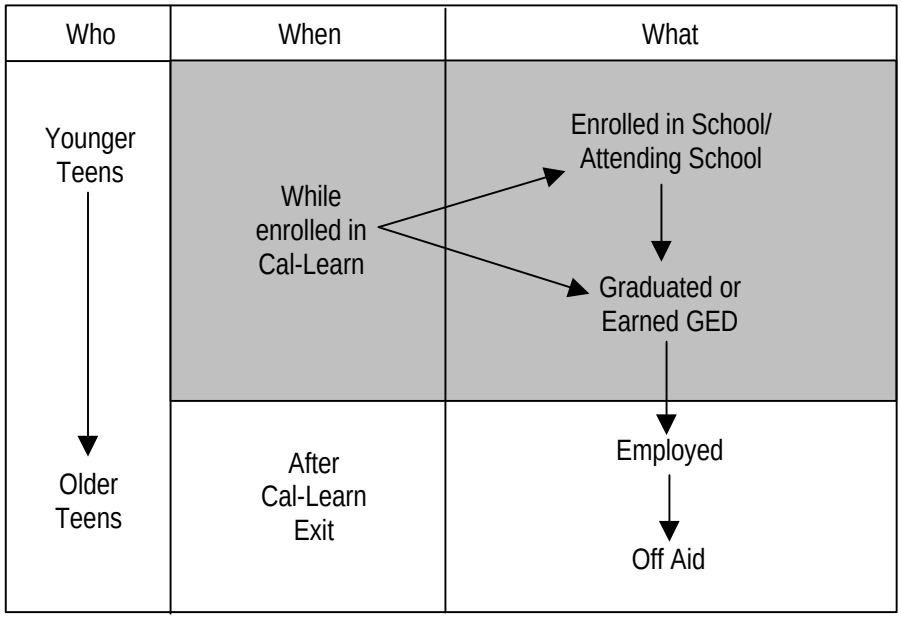
- In short, the interim evaluation has identified statistically significant results supporting Cal-Learn, and also has provided data which suggest that the program mechanisms—case management and bonuses and sanctions—may be working largely as intended to motivate and assist the teenage parents in increasing educational achievement.

# IX. IMPACTS ON EMPLOYMENT AND WELFARE RECEIPT

## Introduction

This chapter examines the employment and welfare receipt outcomes for former Cal-Learn participants in our research sample. The Cal-Learn program is designed to help teens stay in school and graduate, with economic self-sufficiency intended as a long-term outcome of the program (See Figure 9.1). A participant's employment while she is enrolled in the Cal-Learn program might detract from her achieving the program's stated goal of increased education. Hence, this chapter will include analysis of employment and welfare receipt only for teens who have exited from the Cal-Learn program.

**Figure 9.1 Expected Process and Timing of Successful Outcomes**




To describe the outcomes for these exited Cal-Learn participants it is important to consider the circumstances under which a participant exited from the Cal-Learn program. We look at each teen's exit status to see how many teens have exited the program and the reason their Cal-Learn participation ended. We then look at the teen's exit date to determine the amount of post Cal-Learn time available in our data sources in which we might observe employment and welfare effects. Characteristics of these teens' families at exit give us other indications of the effects that might be expected. In the second and third parts of the chapter we discuss, respectively, teens' post-Cal-Learn employment and earnings, and their welfare participation.

## Different Exit Statuses

This chapter examines teens who have finished their Cal-Learn experience in one of the four research counties. These are teens who have a Cal-Learn status code in their county case records indicating that at some point before the end of our observation period they had either graduated, aged out of the program, moved out of a research county, or became otherwise ineligible for Cal-Learn. As of June 1997, the end of the county administrative data for this interim report, there are 1,691 teens whom we observe leaving the Cal-Learn program and not returning during our observation period. Table 9.1 shows the distribution of program status for our sample.[17]

**Table 9.1: Cal-Learn Program Status as of June 1997 for Administrative Sample**

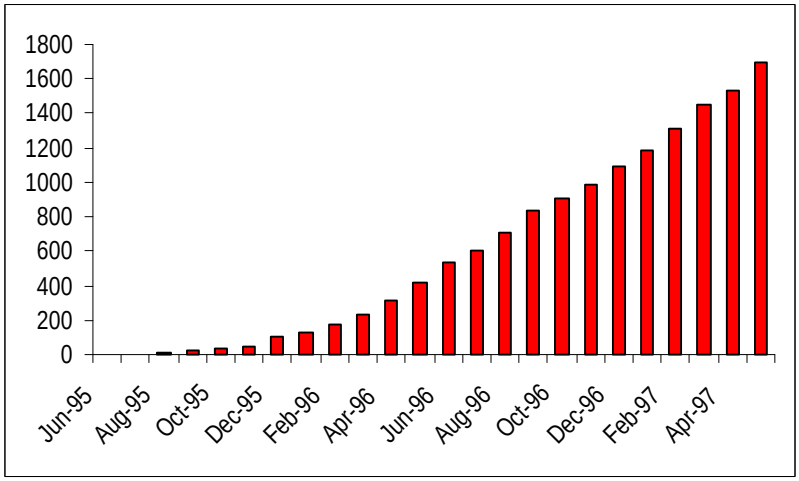
| Program Status | | Number of Teens | Percentage of Total |
|---|---|---|---|
| Active | | 1499 | 46.8% |
| Deferred | | 11 | 0.3% |
| Exits | | 1691 | 52.9% |
| Interim Exits | | | |
| | Moved | 95 | 3.0% |
| | Ineligible | 607 | 19.0% |
| Final Exits | | | |
| | Graduated | 223 | 7.0% |
| | Aged Out | 766 | 23.9% |
| **Total** | | 3201 | 100% |

SOURCE: County administrative data

## Timing of Cal-Learn Exits

Figure 9.2 shows the cumulative timing of Cal-Learn exits.[18] Very few teens who exited did so in the first year of the program (6%). In fact, less than half of our sample of exited teens left Cal-Learn by October 1996 (49%). The two data sources we use for this interim evaluation of employment and welfare receipt extend through different points in 1997. Therefore, for the majority of our sample of exited teens, only a short observation period in which to find post Cal-Learn effects is available. On average, only 2 quarters of potential employment or 13 months of potential public assistance after exit from Cal-Learn are observable.

**Figure 9.2: Cumulative Number of Cal-Learn Exits Over Time**




SOURCE: County administrative data

## Characteristics at Exit

This section describes some characteristics of the Cal-Learn teen and her family at exit. It reveals a highly disadvantaged population who may have difficulty attaining self-sufficiency.

Three times more teens leave the Cal-Learn program by exceeding the program's age limit than by graduation. Only 13% of the teens who leave the Cal-Learn program do so with the equivalent of a high school degree. The average age of a Cal-Learn teen at exit is 18 years and 9 months. Her youngest child is slightly older than 1 year, at 15 months of age.

These young women may have a difficult time competing with older and more experienced people in the job market. The young ages of their children make access to child care an important consideration to employment. In the quarter in which they exit Cal-Learn, 11% of teens are employed. The mean quarterly earnings of those employed is $1042. Earnings just barely over $1000 a quarter do not reflect employment that allows financial independence.

Few teens simultaneously leave aid and exit from the Cal-Learn program. In the first full month after their exit from Cal-Learn, 92% of teens remain on AFDC. Only 3% are off aid completely, and the remaining 5% are on a continuing Medi-Cal program or some other program that provides Medi-Cal coverage.

In sum, the teens who exit the program are young and have very young children. Their job prospects are hindered by this, and by their low graduation rates. They are almost always still on aid when they leave the Cal-Learn program, very few of them are working, and those who are working earn very little.

## Outcomes Examined

We now examine post Cal-Learn employment and welfare receipt for teens who have exited the Cal-Learn program. Outcomes are analyzed for all teens, as well as for subgroups. These subgroups are based on age and on the reason for exit from Cal-Learn. Much of our analysis examines the entire period for which we have data from the time the teen exited. Because this amount of time will vary for the teens, we frequently examine variables that describe a percentage of time since exit rather than a discrete number of months or quarters. Outcomes at the end of the data coverage period are also examined.

Our analysis includes identifying Cal-Learn program effects on employment and welfare receipt through three sets of pair-wise comparisons, with differences tested statistically using independent samples t-tests. We first compare the Full Cal-Learn group to the No Treatment group, to find the effects of the combined treatment components compared to neither treatment. We then compare the groups eligible for case management with the groups ineligible to find the effect of case management, and perform similar comparisons between the groups subject to financial incentives and those not.

Since most of the Cal-Learn exits do not occur until 1996 or later, we observe participants' experiences for only a short period of time after they exit Cal-Learn. We do not expect to find in this limited amount of data indications of large program effects on employment and welfare receipt. Nor do we expect to see many teens having progressed far towards self-sufficiency. Most of them are, after all, still very young. 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. The longer observation periods that will be available for the next report may shed more light on attainment of self-sufficiency among former Cal-Learn participants. Despite these limitations to the analysis, it is important to see how former Cal-Learn participants are doing in the interim and hope that the results reflect what may be more evident in the final evaluation report.

# Employment Outcomes

## Measurement of Employment

### Data Sources

Quarterly employment data from the Employment Development Department are used to examine a research participant's employment after leaving the Cal-Learn program. Data are available beginning when the teen turns 16 until the second quarter of 1997 for all covered employment.[19]

### Variables

Three employment outcome variables are considered. The first variable identifies whether or not the former Cal-Learn participant ever had any covered employment from the time she exited the Cal-Learn program to the end of our data coverage period, the second quarter of 1997. The second variable is how much of her post Cal-Learn time she was employed. This is measured as a percentage of quarters since exit that the former Cal-Learn teen was employed. The third variable is her average quarterly earnings when employed. Quarterly earnings are averaged only

for those quarters in which a teen had earnings. Most of the analysis is done examining employment throughout the entire period since exit. We also do analysis at a point in time, the end of our data coverage period. These variables will help us understand the nature of the teens' employment and allow us to gauge the financial independence of former Cal-Learn participants.

Samples

The sample used for this analysis is the subset of teens from the interim evaluation administrative sample for whom we have the opportunity to observe at least one quarter of post Cal-Learn employment, i.e. those who exited Cal-Learn by April 1997. This group consists of 1,535 former Cal-Learn participants. Subgroup analysis is done for all teens based on age, as well as for the 905 teens who have graduated or aged out by April 1997.[20]

## Overall Outcomes

Table 9.2 shows that overall, 25% of the 1,398 teens who exit the Cal-Learn program are employed in some form of UI/DI covered employment after the time they exit. The Cal-Learn research group who received both financial incentives and case management is most likely to have post-Cal-Learn employment (28%), while the Cal-Learn research group who received no treatment is least likely to be employed (24%).

**Table 9.2: Post Cal-Learn Employment Indicators for All Exited Teens by Research Group**

| Variable | Research Group | | | | All |
|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | |
| Percent Ever Employed | 25.4 | 27.9 | 24.3 | 23.7 | 25.3 |
| Percent of Time Employed | 16.3 | 18.3 | 16.8 | 15.9 | 16.8 |
| Quarterly Earnings | 1043.68 | 967.56 | 1093.62 | 1109.64 | 1051.36 |
| **Sample Size** | 342 | 340 | 358 | 358 | 1398 |

SOURCE: UC DATA calculations from employment data
NOTE: Quarterly earnings are averaged only for those quarters and women with positive earnings.

Table 9.2 also shows that a typical former Cal-Learn participant is employed on average 17% of the time since her exit from Cal-Learn. This is equivalent to about half a quarter of employment. Once again, the group receiving the full Cal-Learn treatment has the highest percentage of time employed (18%), while the group receiving no treatment has the lowest percentage of time employed (16%).

The average quarterly earnings of all former Cal-Learn participants, reported in Table 9.2, is $1051. While those receiving the full Cal-Learn treatment are most likely to be employed, they

have the lowest average quarterly earnings of all four research groups ($968). Although those in the group receiving no treatment are least likely to be employed, their average quarterly earnings while employed are the highest of all research groups at $1,110.

In examining the results of our three comparison tests we find that none of our tests show any statistically significant differences between those receiving a particular treatment component and those not. Generally, however, the group subject to a particular treatment (Full Cal-Learn, case management, or financial incentives) is more likely to be employed than the group that is not receiving the treatment.

## Outcomes by Age

Age at the time of exit is an important determinant of the employability of the former Cal-Learn participants. Generally employment is rare for very young teens. Therefore, the analysis in this section is done for two age groups: those that were 18 when they left the Cal-Learn program and those that were 19 at exit.

### Teens age 18 at time of exit

On average, 28% of the 359 teens age 18 at Cal-Learn exit are employed at any time after their exit. Distinguishing among the research groups, the pattern that held for the entire sample of exits holds here: the Full Cal-Learn group receiving both financial incentives and case management is most likely to be employed (35%), while the No Treatment group is least likely to be employed (21%). This difference is statistically significant at the .10 level. On average, all teens age 18 at time of exit are employed 18% of their post Cal-Learn time. The average former Cal-Learn participant who was 18 years old at exit earns $1067 per employed quarter.

### Teens age 19 at time of exit

Of the 847 teens age 19 or older at time of exit, 24% are employed at some point after leaving the Cal-Learn program. The group receiving financial incentives alone is marginally more likely to be employed (26%) than any other research group. Around 23% of the case managed groups are employed after Cal-Learn. Former Cal-Learn participants who were 19 years old at exit are employed 16% of their post Cal-Learn time. Average quarterly earnings for this group are $1061.

### Comparison of teens age 18 with those age 19 at exit

No statistically significant differences at the .05 level in employment are found for the group age 18 at time of exit, although the differences do follow a general pattern. In all three comparison tests, the group receiving some form of Cal-Learn treatment has higher percentages of employment (using both measures) and higher average quarterly earnings than its corresponding control group.

No statistically significant differences are found in any of our employment outcome comparisons for the 19 year old age group either. In general, however, the differences in the percentage of teens employed are larger for the 18 year old group than for the 19 year old group.

It may seem surprising to find that 18 year olds are more employable than 19 year olds, but this is not a general result; it is an artifact of our sample. In our sample, teens age 18 at exit are more likely to have a high school degree than teens age 19 at exit. Teens age 19 at exit generally aged out of the Cal-Learn program. As the next section shows, graduates have higher employment rates than teens who aged out.

## Outcomes by Exit Status

The way teens exit the Cal-Learn program may also matter for employment. Those teens who obtain a high school degree should be more employable than teens who age out of the Cal-Learn program. To test this hypothesis, we compare the group graduating or passing an equivalency exam with the group aging out. This allows us to see if graduating leads to better employment outcomes, as implied by the Cal-Learn program theory.

Since administrative data and survey data may capture different graduations, we compare outcomes based on both sources. (See Chapter VIII for a discussion of differences in graduations by data source.)

### Outcomes for Teens Who Graduate Or Pass An Equivalency Exam

Graduations in the administrative data. On average, 37% of the 163 teens who have graduations indicated in the County Administrative Data have some post Cal-Learn employment. The typical graduate is employed 25% of the time after leaving Cal-Learn and earns an average quarterly amount of $973. The three comparison tests looking for treatment effects in this group do not produce any statistically significant differences for any of the employment outcome variables. However, the graduates in the groups receiving treatment are more likely to have post Cal-Learn employment than graduates in the relevant control groups. Graduates in the No Treatment group are least likely to ever have been employed, and on average earn the least in a quarter of the four research groups. Graduates in the Full Cal-Learn group are most likely to be employed and are employed the most amount of time.

Graduations in the survey data. As Chapter VIII shows, there are differences in the reporting of graduations between the administrative data and survey data. On average 36% of the 114 teens who report graduations in the Retrospective Survey have some employment after graduating. The typical teen in this group works 24% of the time since graduating and earns average quarterly earnings of $1187.[21]

Comparison of employment by source of graduation data. Our findings based on survey graduations are generally consistent with our findings from graduations reported in the County Administrative Data. For neither data source did any differences between the group receiving treatment and the relevant no treatment group prove to be statistically significant.

### Outcomes For Teens Who Age Out of Cal-Learn

On average, 23% of the 666 teens who aged out of Cal-Learn had some post-Cal-Learn employment. Former Cal-Learn participants work on average 15% of the time since their exit, and typically earn $1064 per quarter. The group receiving no treatment is least likely to have

post-Cal-Learn employment, and is employed the lowest percentage of time. All comparisons performed on the teens who aged out of Cal-Learn produced no statistically significant differences between groups for all employment outcome variables.

Comparison of Teens Who Graduate With Those Who Age Out

In the comparison between the group graduating or passing an equivalency exam with the group that ages out of Cal-Learn, graduates are more likely to be employed and are employed a larger percentage of time since exit. Since the employment outcomes for graduates based on survey data are similar to those based on administrative data, we use outcomes for graduates based on administrative data for these comparisons. Table 9.3 shows that former Cal-Learn participants who exit by graduation are at least 50% more likely to have some post Cal-Learn employment than teens who exit Cal-Learn because they age out. The results are similar to those found when examining the percentage of time employed. On average, teens who exit because of graduation work 25% of the time since leaving Cal-Learn. Teens who leave Cal-Learn because they age out work only 15% of the time. These differences are all statistically significant at the .01 level. While participants who graduate are more likely to have employment, they earn less than teens who leave Cal-Learn by aging out. However, the difference between the average earnings of these groups is only $92 per quarter and is not statistically significant.

**Table 9.3: Post Cal-Learn Employment Indicators for Teens With Final Exits by Exit Status**

| | Exit Status | | |
|---|---|---|---|
| **Variable** | Graduates | Aged Out | Difference |
| Percent with Employment | 36.8 | 23.1 | 13.7*** |
| Percent of Time Employed | 24.7 | 15.4 | 9.3*** |
| Quarterly Earnings | 972.80 | 1064.39 | -91.59 |

SOURCE: UC DATA calculations from employment data
NOTE: Quarterly earnings are averaged only for those quarters and women with positive earnings.
Statistical significance levels are indicated as *** ≤.01; ** ≤.05; * ≤.10.
Graduates are teens with administrative data indicated an exit from Cal-Learn because of graduating from high school or passing the GED.

## Employment at the End of the Data Coverage Period

In the last quarter of wage data (second quarter of 1997), 18% of teens who have exited Cal-Learn are employed. The group receiving the full Cal-Learn treatment is most likely to be employed (19%), while the group receiving no treatment is least likely to be employed (17%). Average quarterly earnings during the second quarter of 1997 is $1,454, which is higher than the overall average of post-Cal-Learn earnings for all time since exit. Again the lowest average quarterly earnings are for the group most likely to be employed, the Full Cal-Learn treatment group. However, none of these differences is statistically significant. In fact, in none of the three comparisons are statistically significant differences found.

## Summary of Employment Outcomes

In general, we find almost no statistically significant differences among treatment conditions in our analysis of employment outcomes. However, there seems to be a pattern of increased employment in groups receiving treatment. The only clear statistically significant differences seem to be in the comparison of former Cal-Learn participants who leave Cal-Learn because of graduation with those who age out of the program. We find that graduates are more likely to be employed and are employed for a greater percentage of time. Graduation does seem to increase employment, and this is consistent with the goals of the Cal-Learn program. In general, we find the average quarterly earnings of employed former Cal-Learn participants to be low. Earnings of slightly over $1000 per quarter is approximately equivalent to 40% of the federal poverty level for a two-person family.

# Welfare Receipt Outcomes

## Measurement of Welfare Receipt

### Data Sources

Welfare program participation indicators from the Assistance History data is used to examine a Cal-Learn teen's post-Cal-Learn welfare receipt. These data contain monthly indicators of program participation. All programs that include Medi-Cal eligibility are covered in these data. These data come from a statewide database and afford us the opportunity to examine a teen's welfare receipt not only in research counties but throughout California. Once the teens leave Cal-Learn, these data are the only administrative source of welfare participation data available to this evaluation. Assistance History data are available for this interim report through December 1997.

### Variables

We have four measures of post-Cal-Learn welfare receipt. The four measures are the percent of time since exiting that the former Cal-Learn teen participated in four categories of public assistance. The first measure is the percent of time she is not on any assistance that would make her eligible for Medi-Cal. Our next measure is the percent of time the former Cal-Learn participant is on AFDC/TANF. The final two measures are the percent of time she is on a continuing Medi-Cal program, such as Transitional Medi-Cal, and the percent of time she is on some other Medi-Cal program. The use of a continuing Medi-Cal program is often an indication of a recipient earning enough to be off AFDC, yet still requiring the medical insurance benefits of Medi-Cal. As was done for employment, these measures are examined over the entire post-Cal-Learn period as well as at the last month of our data coverage period. Our measurement of post-Cal-Learn public assistance includes only program participation after the teen has turned 18 years old.[22]

### Samples

The sample used for this analysis is the subset of teens from the interim evaluation administrative data sample who have exited by June 1997. As our statewide administrative data for assistance history continues through December 1997, we have an opportunity to observe at

least 6 months of post Cal-Learn public assistance for this sample of 1,691 people.[23] In general, the analysis of this section closely follows the analysis of employment outcomes. We consider various subgroup analyses restricted by age and exit status. The only difference being that we consider graduations that occur on or before June 1997, as opposed to April 1997 in the employment analysis. As of this date, we find 177 graduations in the Retrospective Survey data.

## Overall Outcomes

As shown in Table 9.4, former Cal-Learn participants are still most likely to be on AFDC over their entire post Cal-Learn period. We find that 64% of the time teens are on AFDC. Less than a quarter of the time teens are off assistance. The remaining 14% of the time the teens are either on some form of continuing Medi-Cal or other program that offers Medi-Cal eligibility. We see no substantive differences among research groups. In our three comparison tests there is no evidence of any programmatic effect leading to decreased welfare receipt.

**Table 9.4: Post Cal-Learn Welfare Receipt for All Exited Teens by Research Group**

| | Research Group | | | | |
|---|---|---|---|---|---|
| **Percent of Time** | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
| Off Assistance | 22.5 | 21.0 | 20.7 | 21.9 | 21.5 |
| On AFDC | 64.0 | 63.5 | 63.5 | 63.1 | 64.1 |
| On Continuing Medi-Cal | 8.4 | 8.7 | 9.6 | 9.7 | 9.1 |
| On Other Medi-Cal | 5.2 | 4.8 | 6.2 | 5.3 | 5.4 |
| **Sample Size** | 381 | 401 | 389 | 406 | 1577 |

SOURCE: UC DATA calculations from assistance history data

## Outcomes by Age

As was done in the employment outcomes section, outcomes by age at exit are examined separately for those who were age 18 at exit and those who were 19.

### Teens age 18 at time of exit

Teens age 18 at exit are on AFDC a shorter amount of time than all exited teens overall (53% versus 64%). On average only 30% of their post Cal-Learn time are they off aid entirely. The four research groups are generally similar. We find almost no statistically significant differences in the comparisons for this group.

Teens age 19 at time of exit

We also find no statistically significant differences when examining teens who were age 19 at time of exit. The four research groups are similar to each other, spending on average 73% of their post Cal-Learn time on AFDC and 15% of the time off assistance.

Comparison of teens age 18 with those age 19 at exit

All teens, no matter their age at exit, on average spend a majority of the time after their Cal-Learn exit on AFDC. Teens age 19 at exit spend a larger percentage of time on AFDC than teens age 18 at time of exit and correspondingly a lower percentage of time off assistance. Effects from Cal-Learn treatment are not apparent in either group.

## Outcomes by Exit Status

Impacts for Teens Who Graduate or Pass An Equivalency Exam

We compare outcomes for graduates based on two sources of information: the county administrative data and data from the Retrospective Survey.

Graduations in the administrative data. The 221 graduates in the county administrative data spend 11% of their post Cal-Learn time off assistance. Still, a majority of the post Cal-Learn time for these graduates is spent on AFDC, 77% of the time. The Case Management Only group seems to spend the least amount of time on AFDC (70%), and the most amount of time off assistance (15%) among the four research groups. No statistically significant differences in our three comparison tests of programmatic effects are found.

Graduations in the survey data. Similar results are found when using the 177 graduations reported in the survey data. Overall, 74% of the graduates' post Cal-Learn time is spent on AFDC, and 12% of the time is spent off assistance. As was found with graduates in the administrative data, the Case Management Only group spends the least amount of time on AFDC and the most amount of time off assistance among the four research groups.

Comparison of welfare receipt by source of graduation data. Findings for graduates from both sources of graduations are substantively similar. For welfare receipt outcomes there are no statistically significant treatment effects found for graduates regardless of the source of graduation indicator.

Impacts for Teens Who Age Out of Cal-Learn

On average, the 763 teens who leave the Cal-Learn program by aging out spend 13% of their post Cal-Learn time off assistance and 75% of the time on AFDC. We find that case managed teens spend a slightly higher percentage of time on assistance than non-case managed teens (78% vs. 74%). This result is significant at the .10 level, but few other statistically significant differences are apparent.

Comparison of Teens Who Graduate With Those Who Age Out

Unlike the differential impacts found in the analysis of employment outcomes, teens who graduate (according to the administrative data) are not significantly different from teens who age out of Cal-Learn in their welfare participation. Teens who age out spend slightly more time off

assistance and slightly less time on AFDC than graduates. The differences found are small and are not statistically significant. This contrasts with the highly significant differences found for employment in the comparison of these groups.

Welfare Receipt in December 1997

Since the data observation window post Cal-Learn is short, it may be more illuminating to look at the furthest point in our window, December 1997, to see independence from welfare participation. As shown in Table 9.5, in that month, only 57% of the same teens are on AFDC. This is in comparison with 64% over the entire post Cal-Learn period. No statistically significant differences are apparent in our comparison tests of treatment effects.

**Table 9.5: Post Cal-Learn Welfare Receipt during December 1997 Among Exited Teens by Research Group**

| | Research Group | | | | |
|---|---|---|---|---|---|
| **Percent of Teens** | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | All |
| Off Assistance | 29.9 | 26.9 | 29.8 | 30.3 | 29.2 |
| On AFDC | 56.2 | 60.1 | 56.8 | 53.4 | 56.6 |
| On Continuing Medi-Cal | 6.6 | 7.2 | 5.7 | 8.6 | 7.0 |
| On Other Medi-Cal | 7.3 | 5.7 | 7.7 | 7.6 | 7.1 |
| **Sample Size** | 381 | 401 | 389 | 406 | 1577 |

SOURCE: UC DATA calculations from assistance history data

Summary of Welfare Receipt Outcomes

Few statistically significant differences are found when we test for treatment effects on welfare receipt. During the short post Cal-Learn period observable at this time, former Cal-Learn participants spent a majority of their post Cal-Learn time on AFDC. Teens who had final exits from Cal-Learn (graduates and those who aged out of Cal-Learn) spent close to three-quarters of their time since exit on AFDC.

## Combining Employment and Welfare Receipt Post Cal-Learn

This section looks at the combination of employment and welfare receipt outcomes to examine how former Cal-Learn participants support themselves after they exit from Cal-Learn. Only welfare receipt through June 1997 is considered in order to be comparable to the employment data coverage period.

Table 9.6 shows that fewer than 1% of the former Cal-Learn participants have employment without being on Medi-Cal since their exit from Cal-Learn. The majority, 70%, are on public

assistance without any covered employment. Of the exited teens in this analysis, 4% are not observed to have any employment or welfare receipt. It is unclear how these women support themselves. The remaining 25% are observed to be both on assistance and employed since their Cal-Learn exit. The majority of this group is on assistance a higher percentage of time than they are employed.[24] We find no clear difference among research groups in this analysis.

**Table 9.6: Percent of Exited Teens Employed, on Assistance, or Both, After Exit by Research Group**

| Employment and Welfare Receipt | Research Group | | | | %age of All |
|---|---|---|---|---|---|
| | Financial Only | Full Cal-Learn | Case Mgmt Only | No Treatment | |
| Not employed, Not on aid | 5.6 | 3.5 | 2.8 | 4.5 | 4.1 |
| Employed, Not on aid | 0.7 | 0.0 | 0.9 | 1.2 | 0.7 |
| On aid, Not employed | 68.5 | 67.1 | 73.4 | 71.1 | 70.1 |
| Both employment and aid | 25.2 | 29.4 | 22.9 | 23.2 | 25.1 |
| **Sample Size** | 305 | 310 | 319 | 332 | 100.0 |

SOURCE: UC DATA calculations from employment and assistance history data

## Chapter Summary: Impacts on Employment and Welfare Receipt

- We are only examining employment and welfare receipt outcomes after Cal-Learn exit. At this time, only 53% of the research sample has exited Cal-Learn. Only half of these exits (31%) are final exits. This makes the sample sizes in our analyses small.

- Employment and welfare receipt outcomes are expected to be longer-term outcomes of the Cal-Learn program, but at this interim evaluation point, the average post Cal-Learn follow up period is approximately half a year of employment and one year of welfare participation.

- The typical Cal-Learn teen and her child are very young when they exit Cal-Learn. Only 13% of exited teens have graduated high school. These characteristics may be obstacles to obtaining self-sufficient employment.

- Few teens are employed, and few stop receiving AFDC, at the time that they exit the Cal-Learn program.

- A quarter of former Cal-Learn participants are found to have some employment since exiting Cal-Learn.

- Average quarterly earnings found for women who have employment are approximately 40% of the federal poverty level for a two-person family.

- Graduates are much more likely to have post Cal-Learn employment than teens who age out of Cal-Learn. This is consistent with Cal-Learn program goals.

- Former Cal-Learn participants spend a majority of their time since exit on AFDC.

- There are no indications that any treatment affected post Cal-Learn welfare receipt.

- Approximately 70% of those who exit spend some time on AFDC and are not employed at all after leaving Cal-Learn.

- Evaluation of employment and welfare receipt among participants after they have left the Cal-Learn program will benefit from more data, both from more teens exiting Cal-Learn and a longer follow-up period.

# X. SUMMARY AND NEXT STEPS

The interim evaluation of Cal-Learn provides some insights into the operation and effects of the program since its inception in 1994. This final chapter reviews the main conclusions of the evaluation to date, discusses qualifications on these conclusions due to data limitations, suggests implications of the interim findings, and previews the ways in which the final report will build upon this interim work. It should be emphasized that the conclusions of this report, although noteworthy, are based upon data narrower in scope than those available for the final report. That final report, scheduled for Spring 2000, will provide results based on larger samples, additional data sources and a longer window of observation.

## Principal Findings

This evaluation was designed to estimate the separate and combined effects of Cal-Learn's two main program components: intensive case management and financial incentives for school progress. The analyses so far indicate that high school graduation or GED receipt is more frequent among Cal-Learn clients who are eligible for both these components than among teen parents not eligible for case management or incentives. The differences between these groups were quite large: a gain of four percentage points in high-school diplomas and seven percentage points in GEDs, for a total gain of eleven percentage points in graduation rates. Looking at the two program components separately, we find that graduation/GED rates were seven percentage points higher for teens subject to financial incentives than for the teens who were not, and were four percentage points higher for teens eligible for case management than for teens who were not. Graduations were more common among teens who received the full Cal-Learn program than among teens who received only case management or only financial incentives. The teens who received no treatment had the lowest graduation rates of the four groups.

The random assignment of teens to their appropriate research group based on Social Security numbers was correctly implemented. Not all teens, however, accurately recognized the treatment to which they were assigned. Some teens incorrectly believed that they were receiving a program component which they were not eligible for, while others believed themselves to be ineligible for a component that they could receive. The Full Cal-Learn teens were the most likely to understand the treatment to which they were assigned. Teens who were randomized to receive the Full Cal-Learn program and who were correctly aware of that were the most likely to graduate of all the teens in the evaluation.

## Limitations of the Data

These impacts on graduation rates are noteworthy, but for several reasons they should be seen as preliminary rather than conclusive. Teens were temporarily excluded from the interim evaluation if they had fewer than six months of exposure to the Cal-Learn program by the end of the interim data period. For example, teens who were randomized during the last six months were excluded from the interim evaluation, but will be included in the final analyses. The relatively short window of time to observe outcomes also limits our ability to make inferences about longer-term outcomes. An additional year of data is important in studying young adults, whose educational and work-related accomplishments and behavior can change considerably

over a 12-month period. It is even more critical in examining outcomes for Cal-Learn teens, who are already likely to have experienced setbacks in education and employment.

## Implications

Both the interim and the final evaluation benefit from the rich diversity of data sources used to examine this young and vulnerable population. Often, data drawn from alternative sources portray very different pictures of the population being studied. These apparent inconsistencies should be seen as a strength of this evaluation, not a weakness. The variability in report of graduations between administrative and survey data, for example, highlight the way in which reliance on a single data source can compromise and weaken an evaluation. At a minimum, multiple data sources force a healthy skepticism about the data, while convergence in results across sources increases our confidence in the robustness of the findings. Evaluators would be wise to measure important outcomes in more than one way using more than one source.

A second point may be most relevant to program designers and staff: it is not enough to simply provide financial incentives, or to make case managers available to teens in need. Misunderstanding of the program elements and contingencies is not uncommon, and teens may require a significant outreach effort to help them understand the program correctly. Confusion about the program complicates the evaluation, but it also affects the implementation of Cal-Learn generally. For example, we assume that incentives influence teens when they are aware of them and can adjust their behavior accordingly. In this program, case managers seem to have helped clients understand the bonus and sanction system, which in turn may account for the significant impact of the combined effect of both program elements.

More detailed and precise estimates of program impacts will soon be available. The preliminary evidence suggests that Cal-Learn is working as legislators intended, and that it is beneficial to and well-regarded by participants. Not only are graduation rates highest in the Full Cal-Learn group compared to the other three research groups, but participants seem to think that the incentive system is effective and the case managers are helpful.

## Preview of the Final Evaluation

The final set of evaluation data on the Cal-Learn program will not only describe more clients, it will describe them over a longer time period with a richer mix of data. Teens were dropped from the interim evaluation if, by June 1997, they had been in the program fewer than six months. Potentially, the extension of the administrative data collection through November of 1998 could increase the administrative sample by a third.

Sample sizes for self-report data could increase by an even greater proportion. The 1720 Retrospective Surveys analyzed for the interim report were from teens who were interviewed by June 30, 1998. The surveys to be analyzed in the final report will include all those completed through March 1999. In addition, a second wave of interviews with respondents to the first interview has been fielded and will be available for the final analysis. Approximately three-fourths of those teens initially interviewed have been re-interviewed to date in the second wave of the Retrospective Survey.

Perhaps more important than this simple gain in the number of teens in the sample is the gain in the group of teens age 19 and older. These are precisely the teens among whom the outcomes of greatest interest—graduation, employment, and transition off of public assistance—are most likely to be found. In the self-report data, we expect to have about 1600 reports of graduation status from clients who are at least 19 years old. This is more than triple the number of teens for whom graduation outcomes were analyzed for this interim report. Similarly, increases in the numbers of teens age 20 permit the examination of delayed educational outcomes and more detailed employment and aid outcomes.

The larger sample sizes should also allow the comparisons of age-specific graduation rates among counties and estimation of program effects for those individual counties that had large Cal-Learn evaluation samples. In the final report, we also plan to analyze the surveys more fully to paint a picture of Cal-Learn clients' self-reported life circumstances; their health and their children's' health, their use of child care and their assessments of child care; and other important aspects of teen parents' lives. Not only will these data provide another set of comparisons among the research groups, but they could help inform other programs that are trying to meet the multiple needs of young, impoverished families in California.

# 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 issued in a separate check to the head of the welfare case. 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. 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.

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 population on welfare in July 1996 was 98,546; this number has been dropping steadily and in November 1997 stood at 83,960. The total Cal-Learn population in July 1996 was 830, and dropped to 564 in November 1997.

### 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 to 19 year olds in 1996 was 68.3 per 1000, and there were a total of 19,958 births in this group. The total population on welfare in July 1996 was 866,933, and it dropped to 751,090 by November 1997. The Cal-Learn population in July 1996 numbered 8,263; this figure has declined steeply and in November 1997 it was 4,641.

### 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 to 19 year olds was 66.9 per 1000 in 1996, and there were 4,316 babies born to teens. The county's total population on welfare in July 1996 was 182,802, and it declined to 153,436 by November 1997. The Cal-Learn population was 1,290 in July 1996; in November 1997 this figure dropped to 1,063.

## 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 to 19 year olds was 63.6 per 1000 in 1996, and the total number of births was 1,328. The total population on welfare in the county was 68,384 in July 1996; in November 1997 it had dropped to 57,811. The total Cal-Learn population in July 1996 was 577; in November 1997 it was 385.

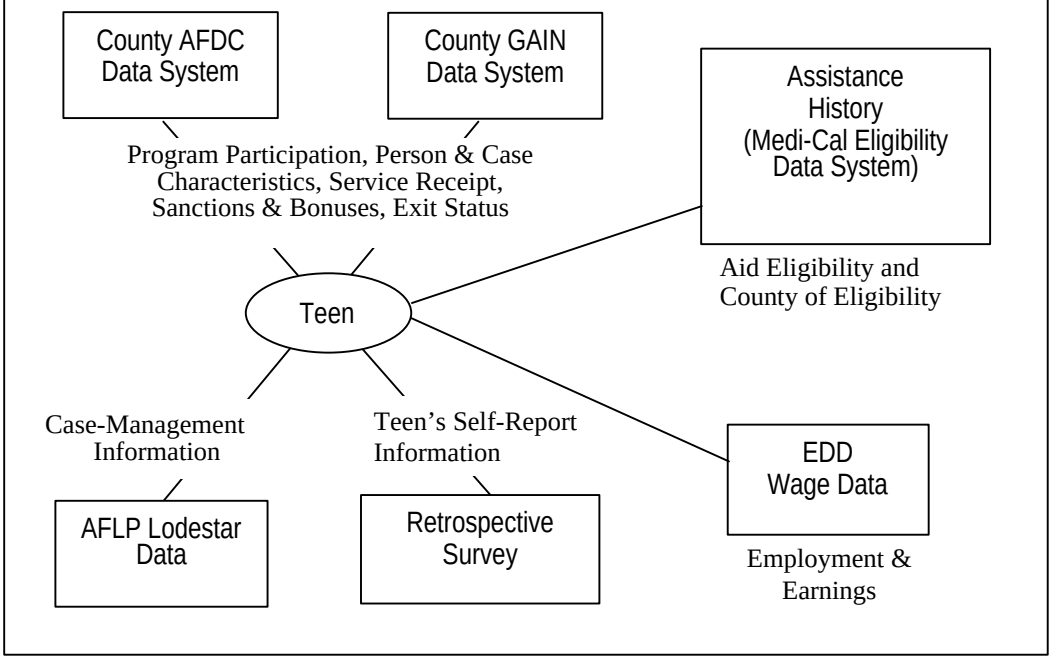
## APPENDIX D: DATA SOURCES AND DATA COLLECTION STRATEGY

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 examined an array of survey and administrative data. This appendix discusses the data sources utilized for the Interim Report, the items drawn from these sources, and the time periods for which the data are available.

As described earlier, 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 program participation data came 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 subset of the teens were interviewed at length over the telephone (the Retrospective Survey) about their experiences in the Cal-Learn program and their educational, welfare and family histories. Figure D.1 identifies the data sources utilized for the interim evaluation. A brief description of the principal data sources follows.

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




## Principal Data Sources

### County Administrative Welfare 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.

### 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.

Medi-Cal Eligibility Data System Data

The Medi-Cal Eligibility Data System (MEDS) provides a rich source of data on historical program participation for a large population of public assistance recipients. This system maintains information for all Medi-Cal eligible persons, including the programmatic basis for eligibility (e.g. SSI/SSP, AFDC-FG, AFDC-UP, AFDC-Medically Needy Only, Foster Care, Transitional Medi-Cal, and many Immigrant/Refugee programs), county of eligibility, and basis of eligibility. It also includes basic demographic information, such as date of birth, ethnicity, and sex, as well as identifying information such as SSN, 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.

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 could be over-represented by the employment not included in these data. The EDD data used in this interim report provide quarterly taxable wage payments in covered employment through the second quarter of 1997 for Cal-Learn participants age 16 and older.

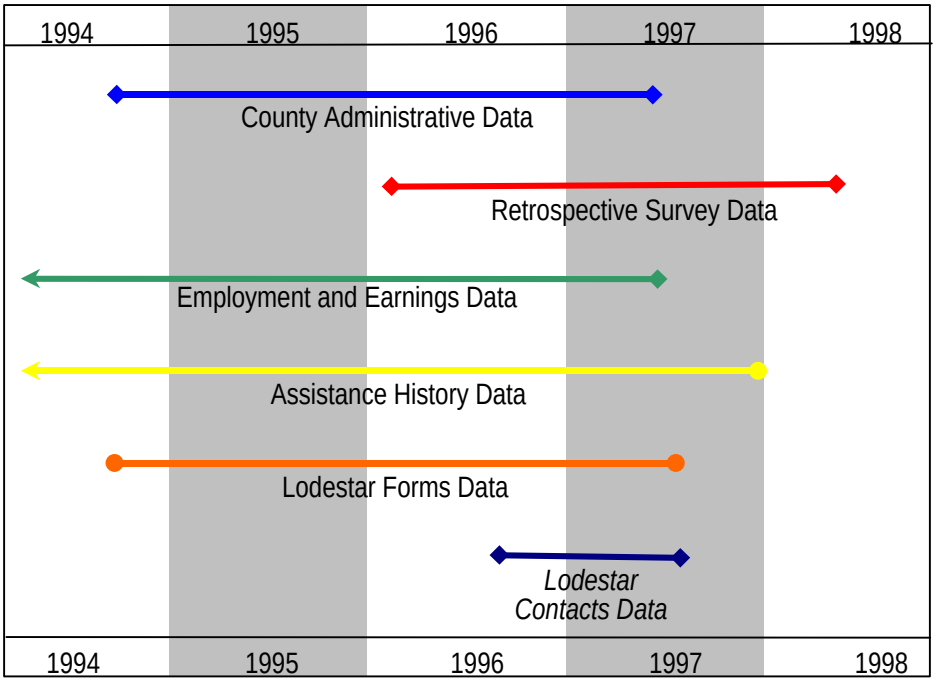
Retrospective Survey

The address and telephone information recorded in county and state welfare data files were used to try to locate, teens for telephone interviews. This information was commonly outdated or incorrect. Using a variety of sources, location and contact information were updated and supplemented. 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.

## Period of Coverage

The county administrative data used in the interim evaluation covers each teen's participation in Cal-Learn from her initial enrollment in Cal-Learn through June 1997 or her is-enrollment 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 from one data source to another. Figure D.2 identifies the potential period of coverage for each data source in the interim evaluation.

**Figure D.2: Potential Periods of Coverage by Data Source**




### County Administrative Welfare 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 June of 1997, data are defined only from Cal-Learn entry until either exit or June of 1997, whichever comes first. Figure D.3 shows the timing of entry of teens into the treatment groups in the four research counties.

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. While the detailed contacts data represents only a limited portion of the information tracked in Lodestar, the extent of missing data for many elements makes their use problematic.

Medi-Cal Eligibility Data System 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 1997, and includes valid data for periods prior to (and after, if applicable) the dates in which the teen is enrolled in Cal-Learn.

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 second quarter of 1997 (when these data end for this evaluation).

Retrospective Survey

Beginning in April 1996, telephone interviews were conducted with Cal-Learn teens in the four research groups. The Retrospective Survey continued through March 1999, but only interviews conducted through June of 1998 were cleaned and available for use in the interim evaluation.[1] The interviews - typically conducted between 6 and 12 months after the teens entered Cal-Learn - 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. Figure D.4 identifies the length of time between Cal-Learn program entry and the date of the interview.

## Data Items Utilized

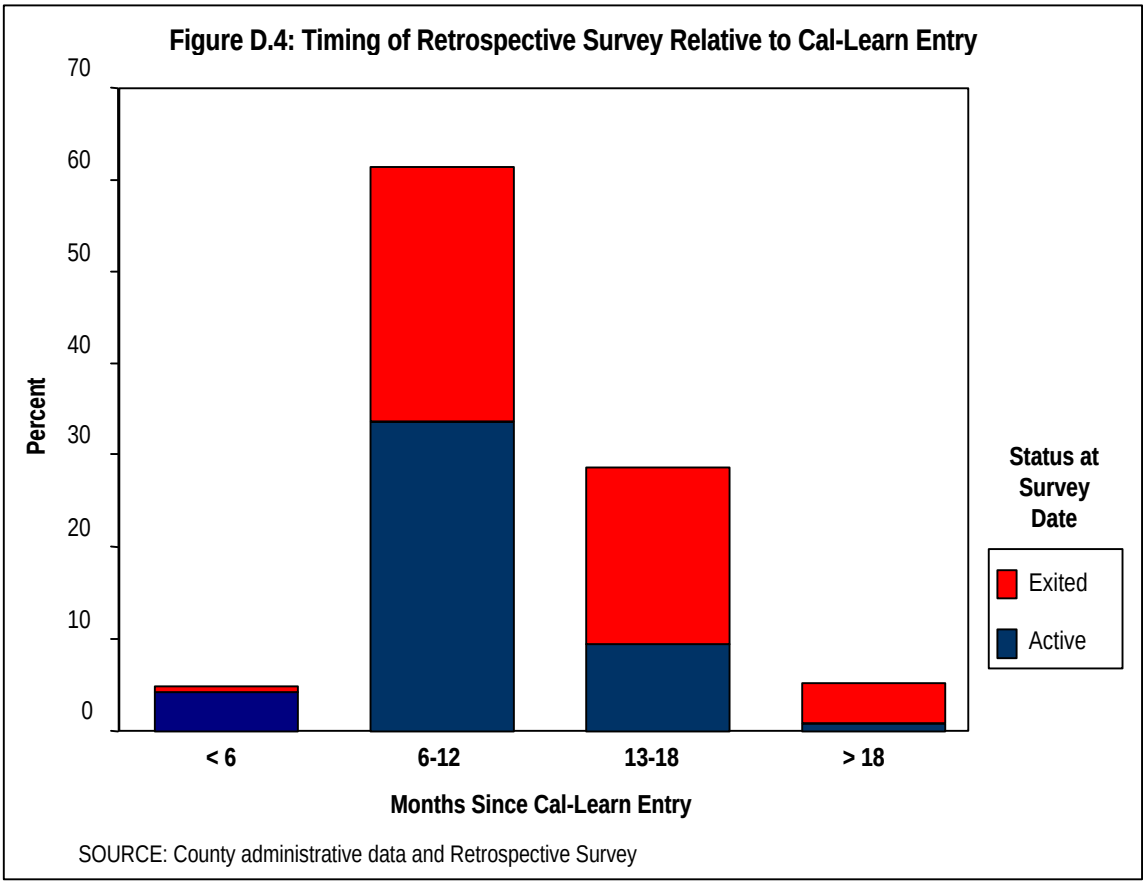
The combination of county and state-level administrative data, in conjunction with the telephone interviews, provides a mix of information for comparing baseline demographic characteristics, comparing outcomes, gauging use of services, measuring exposure to

1. Approximately 550 additional Retrospective Survey interviews were conducted from July 1998 through March 1999; data from these interviews, while unavailable for use in the interim evaluation, will be integrated in the final evaluation.

treatments, and assessing knowledge and attitudes. This section describes four broad groups of variables used for this evaluation intended to address important areas of interest.

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 items are supplemented with measures of aid receipt in the years prior to the teens' entry into Cal-Learn from the Medi-Cal Eligibility Data System. Teens' employment (if any) prior to Cal-Learn entry in UI/DI covered jobs is provided for teens who were age 16 in at least one quarter prior to entry based on EDD Base Wage data.

Data items describing the teens' Cal-Learn experiences, including timing of their entry and exit, length of time active in Cal-Learn, receipt of bonuses and sanctions, and the percent still active at the end of the interim evaluation period 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 files.




The Retrospective Survey provides 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.

Finally, data from all sources provide indicators of the dependent variables of interest. As will be discussed in more detail later, 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: NON-RESPONSE ANALYSIS

The Retrospective Survey recently closed with a 57% response rate. The response rate for the survey at the time this report was compiled was slightly lower (54%). These relatively low response rates invite a number of questions. First, why is the rate not higher? Second, are inferences about the survey respondents generalizable to other populations, such as to the Cal-Learn population as a whole, or teenage parents in other states? And third, what are the implications of this response rate for any causal inferences based on the survey data about the impacts of the Cal-Learn program?

### Reasons for Non-Response

To understand why the response rate for this study is not higher, it is useful to compare the Cal-Learn evaluation to evaluations of comparable programs elsewhere, such as the LEAP evaluation. Other evaluations (including LEAP) are based on samples of individuals who, when they are recruited into the study, must participate in a mandatory program orientation or initial interview. People who fail to appear for these interviews are excluded from the study. Initial interviews permit researchers to make a first contact with study participants and to gather from them detailed contact information. Cal-Learn did not recruit study subjects in this manner. Rather, 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, in fact, appropriate for Cal-Learn were initially identified. More problematic for the response rate, this broad-based recruitment into the study, with no entry barriers whatsoever, included many people who later could not be located for telephone interviews or may have been unwilling to cooperate. 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.

The data used to locate potential respondents for the telephone interview originally came from county and state welfare records. While these agencies maintain valid address lists to which they mail recipients' checks, they frequently do not have telephone numbers for clients, and certainly not up-to-date ones. The researchers wrote numerous letters to the target respondents, but these only rarely prompted respondents to call back with information on how they could be reached by telephone. Searches through other databases, such as Department of Motor Vehicles and credit reporting agencies, were not very useful in locating such a young and economically inactive population.

This study population, also, is unusually hard to bring to the telephone for an interview even when a valid telephone number exists in the record. Many are often too busy being a teenager and mother to inform researchers when their telephone numbers changes to make themselves available for interview. Late in 1998, an in-person survey effort was mounted in Alameda County which generated a substantial additional number of

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.

## Consequences of Non-Response for Inferences about Program Effects

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 originally-selected study sample. In this case, the only consequence of survey non-response for inference, 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 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 are 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 VIII, 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 case manager to report for them, nor do they have a financial incentive to report it themselves. At the outset of the study we were concerned that contact information would be systematically better for some research groups, or in some counties, than others, resulting in differential response rates and systematic bias. This did not turn out to be the case, as Table E.1 shows.

Response rates are statistically indistinguishable across research groups, and almost so across counties. Moreover, because the Cal-Learn study 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 E.1: Percent of Administrative Sample With Completed Survey by Randomized Research Group and by County**

| Randomized Research Group | Percent with Completed Survey |
|---|---|
| Financial Only | 52.1 |
| Full Cal-Learn | 55.2 |
| Case Management | 54.9 |
| No Treatment | 52.9 |

| County | Percent with Completed Survey |
|---|---|
| Alameda | 52.9 |
| Los Angeles | 54.9 |
| San Bernardino | 52.5 |
| San Joaquin | 57.8 |

SOURCE: Retrospective Survey

The following table provides some relevant data. 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 White or Other race. They were, on average, a month younger at the birth of their first child, slightly less likely to live with another adult and to have spent ten days more on welfare in the previous year, than survey respondents. They also typically had been in Cal-Learn slightly less time, meaning that the researchers had less time to locate them.

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.

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 conditions, but the characteristics of the four research groups are similar within the survey sample. See Tables 3.1 - 3.3 in Chapter III. Further, within each research condition non-respondents and respondents differ in predictable ways that reflect the overall differences shown in Table E.2. In short, aside from reducing the number of observations and attenuating statistical power, the non-response in this study does not compromise its ability to provide valid inferences about the impacts of the Cal-Learn program.

**Table E.2: Characteristics of Survey Respondents and Non-Respondents for Survey Completions Through June 1998**

| Characteristic | Respondents | Non-Respondents | p-value for Difference in Means t-test |
|---|---|---|---|
| Age at Cal-Learn entry | 17.25 | 17.27 | 0.50 |
| Number of children at entry | 0.75 | 0.79 | 0.07* |
| Race (percent): | | | |
| White (%) | 22.5 | 19.8 | 0.07* |
| Hispanic (%) | 47.8 | 49.3 | 0.38 |
| Black (%) | 25.2 | 27.6 | 0.13 |
| Other (%) | 4.5 | 3.3 | 0.07* |
| Age at birth of first child | 16.52 | 16.41 | 0.01** |
| Age at birth of youngest child | 16.61 | 16.56 | 0.25 |
| Number of eligible adults | 1.00 | 0.96 | 0.04** |
| Number of eligible children | 1.47 | 1.49 | 0.77 |
| Months on cash assistance (of the last 12 months) | 6.38 | 6.74 | 0.04** |
| Employed in the year prior to Cal-Learn entry | 15.4 | 16.7 | 0.39 |
| Number of Cal-Learn active months | 11.20 | 10.83 | 0.02** |
| Received sanction (%) | 33.1 | 33.3 | 0.91 |
| Received any bonus (%) | 35.7 | 21.6 | 0.00*** |
| Graduated (%) | 9.5 | 4.0 | 0.00*** |
| Any Case Management contact (Lodestar records) (%) | 38.9 | 35.7 | 0.06* |
| Personal Case Management contact (Lodestar records) (%) | 37.5 | 32.9 | 0.01** |

SOURCE: Retrospective Survey, county administrative data, Lodestar data, assistance history data, and wage data

## APPENDIX F: BASELINE CHARACTERISTICS OF CAL-LEARN TEENS BY COUNTY

Chapter III provided a description of the baseline characteristics of the teens participating in the Cal-Learn evaluation. In this appendix, descriptions of the teens reflecting the same characteristics are shown for the four research counties. These profiles are constructed from a mix of data drawn from administrative records and survey data, and reflect the information about the teen, her aid history, employment history, children, and AFDC case. 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.

The intent of Chapter III was to test whether teens in any of the four research groups differed in some systematic way from teens in any of the other groups. If differences existed, it would have suggested that statistical adjustments might need to be made in the analysis of outcomes. In this appendix, the profiles serve only descriptive purposes.

Unlike the research group comparisons, which showed only minor differences on these characteristics, more substantial differences emerge by research county (See Table F.1). Los Angeles tends to have slightly more teens aged 15 and younger at entry than the other counties (13% vs. 10%) and slightly fewer 18 year-olds (32% vs. 35%), although the

**Table F.1: Age, Race and Language Characteristics at Cal-Learn Entry, Administrative Sample, by County**

| | County | | | |
|---|---|---|---|---|
| | Alameda | Los Angeles | San Bernardino | San Joaquin |
| ***Age at Entry*** | | | | |
| Mean | 17.2 | 17.2 | 17.3 | 17.3 |
| Less than 15 | 11.8 | 13.1 | 9.7 | 10.3 |
| Age 16 | 22.2 | 23.7 | 22.3 | 20.9 |
| Age 17 | 31.0 | 31.2 | 33.1 | 32.6 |
| Age 18 | 35.0 | 32.1 | 34.9 | 36.2 |
| ***Race/Ethnicity*** | | | | |
| White | 10.9 | 10.7 | 29.5 | 24.6 |
| Hispanic | 16.9 | 62.6 | 49.9 | 39.1 |
| Black | 65.2 | 24.5 | 18.8 | 19.2 |
| Other | 7.1 | 2.2 | 1.8 | 17.1 |
| ***English Language*** | 93.1 | 81.2 | 96.9 | 87.7 |
| **Sample Size** | 397 | 917 | 1586 | 301 |

SOURCE: County administrative data

differences are not statistically significant. More striking are differences in racial composition: In Alameda and Los Angeles, only one in ten teens is identified as white, while a quarter of teens in San Joaquin and three in ten teens in San Bernardino are classified as white. In Los Angeles, nearly two-thirds of teens are Hispanic, as are half of teens in San Bernardino. In Alameda, in contrast, nearly two-thirds of the teens are black, with only one in six identified as Hispanic. Primary language also varies substantially, with English identified as primary in 97% of Cal-Learn teen cases in San Bernardino, but in only 81% of Los Angeles cases.

As Table F.2 shows, differences with respect to children and case composition also emerge between the teens based on their county of residence. In Alameda, 42% of teens enter the programs prior to the birth of their first child, as do 32% of teens in San Joaquin; in contrast, only 27% of teens in Los Angeles and 28% of teens in San Bernardino have not yet given birth by program entry. Profiles for these teens are shown in Table F.2.

**Table F.2: Child and Case Composition Characteristics at Cal-Learn Entry, Administrative Sample, by County**

| | County | | | |
|---|---|---|---|---|
| | Alameda | Los Angeles | San Bernardino | San Joaquin |
| ***Children at Entry*** | | | | |
| Mean | 0.6 | 0.8 | 0.8 | 0.7 |
| No Children | 41.8 | 26.5 | 27.6 | 31.6 |
| One Child | 54.9 | 67.8 | 66.3 | 63.8 |
| Two Children | 3.3 | 5.1 | 5.6 | 4.3 |
| Three or More | 0.0 | 0.5 | 0.5 | 0.3 |
| ***Teen's Age at Birth of*** | | | | |
| First Child | 16.8 | 16.5 | 16.4 | 16.4 |
| Youngest Child | 16.9 | 16.6 | 16.6 | 16.5 |
| ***Age of Oldest Child*** | 0.6 | 0.7 | 1.0 | 0.9 |
| ***Case Composition*** | | | | |
| Federal Adults | 0.95 | 0.94 | 1.02 | -- |
| Federal Children | 1.12 | 1.66 | 1.46 | -- |
| **Sample Size** | 397 | 917 | 1586 | 301 |

SOURCE: County administrative data

Differences between counties also exist with respect to prior aid, with teens in Los Angeles averaging 3 fewer months on cash aid in the 3 years prior to their entry into Cal-Learn, and 1 fewer month on cash aid in the year immediately prior to entry (See Table F.3). Over a third of teens in Los Angeles started cash aid in the 3 years prior to Cal-

Learn entry, and quarter in the year prior to entry, versus 28% and 18% for those time periods in the other 3 counties.

**Table F.3: Basis of Aid, Aid History, and Employment History Characteristics at Cal-Learn Entry, Administrative Sample, by County**

| | County | | | |
|---|---|---|---|---|
| | Alameda | Los Angeles | San Bernardino | San Joaquin |
| ***Months on Cash Aid*** | | | | |
| In Last 36 Months | 19.0 | 16.1 | 19.0 | 21.3 |
| In Last 12 Months | 6.3 | 5.8 | 6.9 | 7.1 |
| ***Percent New to Aid*** | | | | |
| In Last 36 Months | 23.4 | 34.5 | 30.5 | 21.9 |
| In Last 12 Months | 18.1 | 24.9 | 18.5 | 14.6 |
| ***Aid Code at Entry*** | | | | |
| Family Group | 94.6 | 89.5 | 87.7 | 89.0 |
| Unemployed Parent | 5.4 | 10.5 | 12.3 | 11.0 |
| ***Employed in Prior Yr*** | 19.4 | 18.1 | 13.5 | 19.2 |
| **Sample Size** | 397 | 917 | 1586 | 301 |

SOURCE: County administrative data, assistance history, and wage data

## APPENDIX G: TREATMENT CONDITIONS: ASSIGNED, EXPERIENCED, AND PERCEIVED

Chapters V, VI, and VII described Cal-Learn teens' experiences with the experimental treatments—financial incentives and case management—and established that teens' perceptions and experiences frequently do not correspond to what their randomly-assigned group status indicates they should have experienced. In Chapter VIII, the examination of outcomes for 'ideal' groups, composed of teens whose perceived treatments matched their randomly assigned treatments, made clear the importance of teens' perceptions and experiences as intervening mechanisms in achieving successful educational outcomes. This appendix explores in more detail the inconsistencies between the treatments clients were assigned to receive, the treatments that the administrative data indicate they received, and the treatments they report receiving. These analyses are valuable because the design of the general Cal-Learn program, and of the Cal-Learn evaluation, is to offer teens the experience of case management, and to create the perception among them that progress in school leads to financial rewards, while financial penalties are assessed for not making progress. Teens who actually experience/receive case management are presumed to gain access to supportive services and counseling that is denied to teens who do not experience case management. And teens who believe they can receive bonuses or sanctions are presumed to have more reasons and therefore greater willingness to persist in school.

By distinguishing teens' actual perceptions and experiences (reported in the survey and in the administrative data) from their random assignment to research conditions, one can determine whether an experimental condition was implemented as planned, and whether, when these interventions were implemented as planned, they were able to achieve their intended goals. Thus, this appendix provides useful contextual information on the implementation of the program and the experiences of teens in the experiment, and suggests avenues for future research.

### Modes of Classification

For the purpose of these analyses, we determine for each program participant three types of program participation, and classify each person accordingly. The first classification approach, the approach that we have used throughout most of the report, is based on the teen's *randomly assigned treatment*: a teen is classified according to the treatment condition into which she was randomly assigned. Random assignment permits analysts to compare outcomes among teens assigned to different treatments with confidence that differences in outcomes reflect true treatment effects rather than merely differences in the characteristics of teens selected to receive those treatments. If, for example, we were to find that teens assigned to receive bonuses and sanctions graduate at a higher rate than teens who were not subject to financial incentives, the random nature of this assignment means we do not have to worry that anyone deliberately placed teens they thought would be more successful into groups where they could get a bonus or protected poorly performing teens from sanctions by placing them in groups not subject to incentives.

A second classification strategy reflects each teen's *experienced treatment:* that is, her actual receipt of bonuses, sanctions or case management as these experiences are recorded in the administrative data. Teens who are recorded in the administrative data as having seen a case

manager are classified as having experienced case management, while teens who actually received bonuses or sanctions are classified as experiencing a financial incentive. Experienced treatment is in part a consequence of the behavior of each individual teen; a teen who makes herself unavailable to her case manager will not experience case management and a teen who neither fails nor makes satisfactory progress will not experience a financial incentive. Attributing differences in graduations to differences in experienced treatments may not be valid because the people who behave so as to experience a treatment might have been going to graduate (or not graduate) anyway. Nevertheless, it is valuable to know the extent to which people assigned to experience case management actually received it, and to explore whether that experience changed their educational outcomes; or to explore whether receiving a bonus or sanction led to changes in behavior.

The third strategy classifies each teen according to what treatments she believes she received or was subject to while in Cal-Learn. This classification, which is based on her responses to questions in the survey, we refer to as her *perceived treatment.* A teen who believed that that she could earn a bonus or face a sanction is classified as perceiving that she is subject to financial incentives, while one who believed that she had a Cal-Learn case manager is classified as perceiving that she got case management. If teens do not correctly understand the treatments to which they are subject, the effects of randomly-assigned treatments will probably be attenuated. If, for example, teens who were randomly assigned to financial incentives were not aware of this fact, they might graduate at the same rates as teens not assigned to financial incentives. Financial incentives that, in theory or in a laboratory situation, might be powerful cannot be effective if, when an incentive program is implemented, teens are not aware of them. Conversely, if teens who are not in fact eligible for incentives believe that they are, then they might behave in the same was as teens who were randomized to receive incentives.

Perceptions, like experiences, can be the result of an individual teen's behavior and characteristics—her ability and willingness to take in and recall information. But perceptions can also be the result of the information made available to people, and the context in which that information is acquired or repeated. Participants in the randomized evaluation, in which teen parents in the research counties were randomized to one of four different conditions, may have been more likely than teens in the regular program to misperceive their status because their friends might have been in different conditions than they were themselves. Therefore one should not necessarily assume that lack of program knowledge among Cal-Learn evaluation participants also implies a lack of knowledge among participants in the full program. Rather, the knowledge of participants in the full program should be assessed independently of the randomized evaluation.

The survey is our only source of information about what teens perceived as the treatments they were subject to or received in the evaluation. The survey was designed such that if teens reported in the survey that they did not believe they were in Cal-Learn, they were not asked questions about their perceptions of their status in the program. Thus, they were not asked if they could receive bonuses and sanctions, nor were they asked if they had a case manager or had seen the case manager. The randomized research groups differed in the proportion of their participants who said they were not in Cal-Learn and therefore in the degree to which they were screened out of the subsequent survey questions. Only 5% of teens randomized to the Full Cal-Learn group believed they were not in Cal-Learn, while approximately 10% of teens assigned to

Case Management Only, 20% of teens in Financial Only, and 40% of teens in No Treatment believed they were not in Cal-Learn.

## Case Management: Assigned, Experienced and Perceived

### Administrative and Self-Report Data on Case Management

In contrast to the 90% of teens in the case-managed groups whose records appear in Lodestar (see Chapter VI), only 6% of teens in the groups not assigned to case management are recorded with contacts in the Lodestar data, with equal rates of contact for the Financial Incentives Only and the No Treatment groups. The teens' perceptions reported in the survey, however, indicate higher levels of case management in these groups. For teens assigned to the Financial Incentives Only condition, 65% reported that they had a Cal-Learn case manager, while for teens assigned to the No Treatment condition, 40% reported that they had a Cal-Learn case manager. For many of these teens, their perception of having a case manager was fairly hollow: of teens not assigned case management who nevertheless believed they had a case manager, only half (51%) reported actually seeing that case manager.

These survey data suggest that a non-trivial portion of the people who, according to the random-assignment experimental design, should not get case management services believe themselves to be getting some type of services. As explained earlier, the AFLP case management agencies would provide services to any teen parent on welfare who asked for case management, so the non-assigned teens could have received AFLP case management – which is, in fact, the Cal-Learn case management. The client-caseworker contacts might not have been recorded in the administrative data because the AFLP agency was not aware that the teen was in the Cal-Learn evaluation. Or, the teens could be getting case management from some other social service agency. In either case, if case management were as effective in helping these teens graduate as the case management received by the teens who were assigned to case management, then the randomized "No case management" groups would in fact be partly composed of "Case Management" teens and the true impact of case management could not be assessed merely by comparing the outcomes among randomized groups.

Alternatively, these non-assigned teens could be confusing some other service provider, such as a welfare eligibility worker, with a Cal-Learn case manager (although the question and the instructions to interviewers both focused unambiguously and explicitly on *Cal-Learn* case management). In that case, this alleged case manager might not be providing case management services to these teens at all, and the randomized evaluation would not be weakened.

The teens who think they have a case manager tend to have different experiences of other aspects of the Cal-Learn program than teens who do not think they have a case manager. They are at least twice as likely to use supportive services and at least three times as likely to have received bonuses. These data suggest at least two interpretations: one, teens who think they have case managers may in fact have one, and that person helps them get supportive services and receive the bonuses they are entitled to; or, two, a welfare worker might be performing those functions and the teen thinks she is a case manager.

The data on bonuses suggest that teens who believed they had seen a case manager did better in school, receiving more bonuses. This pattern is found both among teens assigned to case management who said they saw a case manager, and among teens not assigned to case management who said they saw a case manager. The pattern can be interpreted in at least two ways. One interpretation supports the hypothesis that case managers (or whomever the teen thinks is her case manager) help Cal-Learn clients to perform better in school. An alternative interpretation is that some teens are good at getting the resources they need to do well in school, including getting a case manager (or someone like a case manager), and they are also more likely than average to get a bonus. This interpretation does not imply that case managers helped the teens, but that the teens were good at helping themselves.

Survey Data on Case Manager Effectiveness

Teens who believed they had a case manager were asked to assess the quality and effectiveness of their case managers. The questions ask respondents how much, taking everything into consideration, having a case manager helped them. Teens who were supposed to have a case manager because they were randomly assigned to case management are substantially more likely to report that their case manager helped them "a lot" than teens who were not randomly assigned to receive case management, but who believed they had a case manager anyway. Over half (53%) of teens assigned to case management said their case manager helped them "A lot", while only 11% said their case manager helped "not at all". In contrast, only a quarter (27%) of teens *not* assigned to case management said the case manager helped "a lot" and nearly a third (31%) of teens felt the case manager helped "not at all". Similar differences in reported helpfulness in getting into a school or class, or getting special tutoring emerge between the teens assigned, or not assigned, to case management. These results suggest that a qualitative difference between the case managers assigned to teens as their experimental treatment and the personnel who fill this role for teens not assigned case management. Teens who are entitled to Cal-Learn case management by virtue of being randomized to a case management research condition are more likely to find their case managers helpful than are teens who may or may not actually be getting case management, although they think they are.

## Summary of Assigned, Experienced, and Perceived Case Management

While about 90% of the teens assigned to case management appear in the case management administrative data system, and about 87% of them say that they have a case manager, an indeterminate fraction of teens not assigned to case management also have seen a case manager. On the one hand, very few of the latter group -- only about 6% -- appear in the Lodestar data as having received Cal-Learn case management. On the other hand, about half of them say they think they have a case manager, and about one-quarter of them say they have met with a case manager.

Irrespective of assigned treatment, teens who *believe* they have a case manager are more likely to use Cal-Learn supportive services and to receive bonuses. Additionally, among the teens who believe they have case managers, those who were also entitled to case management by virtue of being randomly assigned to that treatment rated their case managers as more helpful than did teens not assigned to case management.

**Table G.1: Selected Characteristics of Teens by Assigned and Perceived Case Management Treatment**

| ***Assigned Treatment:*** | ***Case Managed Groups*** | | ***Non-Case Managed Groups*** | |
|---|---|---|---|---|
| Perceived Treatment : | Believes has CM | Believes does not have CM | Believes has CM | Believes does not have CM |
| *Lodestar* | | | | |
| Any Contact | 87.2 | 78.2 | 9.4 | 3.7 |
| Personal Contact | 84.9 | 69.0 | 9.1 | 3.7 |
| Home Visit | 68.8 | 47.1 | 8.6 | 3.7 |
| *Supportive Services* | | | | |
| Any | 63.6 | 32.1 | 48.5 | 10.9 |
| Transportation | 57.1 | 28.4 | 36.9 | 8.0 |
| Child Care | 20.9 | 7.3 | 22.8 | 4.0 |
| Ancillary | 19.3 | 5.5 | 18.3 | 4.2 |
| *Incentives: Admin.* | | | | |
| Bonus | 35.9 | 9.8 | 37.4 | 9.5 |
| Sanction | 27.6 | 36.6 | 34.3 | 39.2 |
| *Incentives: Survey* | | | | |
| Bonus | 21.8 | 4.4 | 24.6 | 3.1 |
| Sanction | 11.1 | 3.5 | 18.6 | 3.4 |
| *Teen Evaluation* | | | | |
| CM Helped: “A lot” | 52.8 | -- | 27.3 | -- |
| “Not at All” | 11.0 | -- | 31.0 | -- |
| *Have Seen CM* | 92.7 | -- | 51.0 | -- |
| **Sample Size** | 740 | 113 | 451 | 416 |

SOURCE: County administrative and Lodestar Data and Retrospective Survey
NOTE: The Case Managed groups include the Full Cal-Learn group and the Case Management Only group. The Non-Case Managed groups include the Financial Only group and the No Treatment group. Teens are assigned to the Perceived CM groups if the believe they had a Cal-Learn case manager, either currently or in the past.

## Financial Incentives: Assigned, Experienced and Perceived

Administrative and Self-Report Data on Bonuses and Sanctions

The elements of the financial incentive treatment experienced by the teens are discussed in detail in Chapter V. Treatment protocols appear to have been adhered to by the counties: only teens assigned the financial incentives groups received either bonuses or sanctions. Nearly 34% of Full Cal-Learn teens received some form of bonus while fewer than 25% of Financial Only teens ever received a bonus. Conversely, teens in the Financial Only group were significantly more likely to receive a sanction than were teens in the Full Cal-Learn group (36% compared to 30%). Overall, in both groups more than half (55%) of the teens experienced either a sanction or a bonus. No teens who were not randomized to financial incentives received one. This fact highlights one important feature of the randomized design: teens can not 'self-refer' themselves into eligibility for incentives, while they can self-refer for case management.

Respondents' perceptions of their eligibility for incentives matches the reality only moderately. Overall, 57% percent of all teens believed themselves subject to some incentive, whether a bonus or sanction. Teens in the groups actually subject to incentives are most likely to hold this belief – 87% of teens in the Full Cal-Learn group and 71% of teens in the Financial Only group correctly believe themselves subject to at least one of the incentives (although some of those who knew they were eligible for an incentive did not know they were eligible for all the incentives). Of the teens not subject to sanctions and bonuses—those in the Case Management Only and No Treatment groups—40% and 29% respectively believed that they could receive some bonus or sanction.

These findings are important because the financial incentive treatment does not mainly consist of the *receipt* of a bonus or a sanction but of a teen's *expectation* of bonuses and sanctions contingent on her behavior. Bonuses and sanctions once awarded, however, might reinforce the causal relationship in a teen's mind between behavior and consequences, and might thereby strengthen her motivation to progress in school. Teens who believed they were subject to incentives were asked in the survey if they had received one. Of this group, teens who actually were assigned to the financial incentive groups are, not unexpectedly, more likely to report that they received bonuses (40%) and sanctions (27%) than teens who were not assigned to the groups subject to incentives, who rarely believed that they had received one (4% and 1%, respectively).

Correlations between Perceived Eligibility for Incentives, and the Treatments and Services Used

Among the groups randomly assigned to incentives, the teens who correctly understood themselves to be eligible for bonuses and sanctions were much more likely to receive bonuses (37% vs. 10%) and less likely to receive sanctions (29% vs. 44%) than teens who did not think they were subject to incentives. It is impossible to judge whether this correlation demonstrates the effects of knowledge and motivation on behavior, or the effects of getting a bonus or sanction on a teen's knowledge.

Teens who believed they were subject to financial incentives were more likely to utilize assistance for supportive services than teens who did not believe they could get bonuses or

sanctions. Among teens assigned to the financial incentive groups, 58% of teens who understood they are subject to sanctions and bonuses had received some supportive service versus only 24% of teens who failed to understand their eligibility. These differences also appear with respect to assistance with transportation, child care, and ancillary expenses. Among teens not assigned to the financial incentives groups, similar (although more muted) contrasts based on perceptions are evident: 49% of teens who believed themselves subject to incentives received supportive service assistance versus 34% of teens who correctly recognized that they could not receive bonuses or sanctions.[1]

Teens were more likely to have contact with a case manager (according to the Lodestar data) if they believed they were eligible for financial incentives than if they did not believe this. This relationship was especially strong among teens who were randomly assigned to financial incentives. Teens who recognized their eligibility for bonuses and sanctions were twice as likely to have had contact with a case manager as were teens who did not realize they were subject to bonuses and sanctions (53% compared to 26%). This relationship suggests that one of the benefits of having a case manager might be better information about eligibility for bonuses and sanctions.

Fairness and Effectiveness of Incentives from Self-Report

All teens in the survey, irrespective of whether they were eligible for incentives or not, were asked about their perceptions of the fairness and usefulness of bonuses and sanctions. The teens' evaluations by research group suggest that teens assigned to the two financial incentive groups were more likely to assess sanctions and bonuses as fair, and also most likely to feel they were effective in helping teens stay in school (see Chapter V). Distinguishing responses by whether teens believed they were subject to incentives suggests that teens who thought they were subject to incentives were moderately more likely to feel those incentives were fair and effective than teens who did not think themselves subject to incentives. This result was true within each individual research group, as well as within the larger groups composed of all teens subject to incentives and all those not assigned to that condition.

## Summary of Assigned, Experienced, and Perceived Financial Incentives

Treatment protocols for the financial incentives appeared to have been adhered to: the administrative data show that only teens actually assigned to the financial incentives groups experienced any of the incentives. Among eligible teens, those who realize they are subject to incentives are four times more likely to have received a bonus, and have been sanctioned at only 70% of the rate of teens who do not realize they can get bonuses and sanctions.

Over a third of teens who are not eligible for incentives believe they are subject to some form of financial incentive, although none of them have received any incentive. Teens who believe they

1. Both the set of teens assigned to the incentives treatment condition and the set of teens not so assigned are comprised of a mix of two groups, which differ on whether case management was assigned. Depending on the relationship between perceived eligibility for incentives and assignment to the case managed groups, contrasts displayed by perceived eligibility may reflect differences associated with assignment to case management, as well. For simplicity in presentation, contrasts are not presented separately for each of the four research groups; if differences emerge, they are discussed in the text.

are subject to bonuses or sanctions tend to have more contact with case managers and use more supportive services than teens who do not think they are subject to incentives. This difference is especially true of teens who actually can receive bonuses and sanctions, but appears as well among those who are ineligible. Teens who believe they are eligible for incentives are also more likely to believe bonuses and sanctions are fair and useful for getting teens to return to and stay in school.

**Table G.2: Selected Characteristics of Teens by Assigned and Perceived Financial Treatment**

| ***Assigned Treatment:*** | ***Financial Incentives*** | | ***No Financial Incentives*** | |
|---|---|---|---|---|
| Perceived Treatment: | Believes can get an incentive | Believes can get no Incentive | Believes can get an incentive | Believes can get no Incentive |
| *Admin: Received* | | | | |
| Bonus | 36.5 | 9.94 | -- | -- |
| Sanction | 29.0 | 44.2 | -- | -- |
| Any | 59.8 | 51.4 | -- | -- |
| *Survey: Received* | | | | |
| Bonus | 40.4 | -- | 4.3 | -- |
| Sanction | 26.6 | -- | 0.7 | -- |
| *Supportive Services* | | | | |
| Any | 57.7 | 24.0 | 48.9 | 33.9 |
| Transportation | 49.1 | 19.3 | 42.2 | 28.6 |
| Childcare | 21.4 | 5.3 | 18.7 | 12.7 |
| Ancillary | 22.9 | 9.9 | 10.8 | 7.5 |
| *Lodestar* | | | | |
| Any CM Contact | 52.6 | 25.6 | 50.2 | 39.5 |
| *Survey* | | | | |
| Bonuses are: | | | | |
| Fair | 94.3 | 91.4 | 90.1 | 84.5 |
| Very Useful | 62.1 | 49.7 | 57.4 | 53.1 |
| Sanctions are: | | | | |
| Fair | 64.3 | 55.3 | 57.9 | 53.3 |
| Very Useful | 30.8 | 27.3 | 30.2 | 25.4 |
| **Sample Size** | 685 | 181 | 303 | 551 |

SOURCE: County administrative and Lodestar Data and Retrospective Survey
NOTE: The Financial Incentives groups include the Full Cal-Learn group and the Financial Only group. The No Financial Incentives groups include the Case Management Only group and the No Treatment group. Teens are assigned to the Perceived Incentives groups if the believe they are eligible for either a bonus or a sanction.

# ENDNOTES

[1] 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).

[2] As discussed in the Cal-Learn *Process Evaluation*, 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 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.

[3] 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.

[4] To provide a broader sense of the timing of enrollments and exits, figures provided here include teens for whom less than six months of active Cal-Learn participation data exists. Because that group of teens includes all teens randomized after January of 1997, exclusion of that group weights the sample more heavily to teens randomized earlier, and more likely to exit earlier. It does not impact the size or direction of the modest differences between research groups, however, or the more substantial differences between counties.

[5] 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 VIII.

[6] Additional first wave surveys conducted from July 1998 to March 1999 are not currently included in the analysis. Approximately 550 first wave surveys were conducted during this period.

[7] 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 *Implementation of California's Cal-Learn Demonstration Project: A Process Evaluation*.

[8] 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 5.2, these teens are treated as reporting no receipt of financial incentives.

[9] 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 (71%) than Full Cal-Learn

teens (87%). 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 37% of the Financial Only teens reported receiving a sanction compared to only 28% of the Full Cal-Learn teens. The difference in reported sanction receipt for this sample was statistically significant at the .05 level.

[10] Since the surveys were conducted from April 1996 to June 1998, 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 is 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 1,720 teens were surveyed in the Retrospective Survey; 853 of these surveyed teens are in case managed groups. Of the 1,250 case managed teens included in our Lodestar sample, 711 were surveyed. Consequently, 143 case managed teens in the survey sample do not have Lodestar Contacts data due to the sample period issue. Survey questions regarding case manager contact apply to all 853 surveyed case managed teens.

[11] Although all Cal-Learn teens are eligible for supportive services, teens must be enrolled in school in order to receive supportive services.

[12] The 268 teens in San Joaquin for whom supportive service data were not available are not included in this sample.

[13] Because the intent is cross-validation across data sources, teens removed from the interim evaluation analyses because they had fewer than six months of active participation are included in this analysis.

[14] From LEAP: Final Report on Ohio's Welfare Initiative to Improve School Attendance among Teenage Parents, by David Long, Judith Gueron, Robert Wood, Rebecca Fisher and Veronica Fellerath. Manpower Demonstration Research Corporation, 1997.

[15] This apparent interaction effect does not hold, however, for the outcome “not dropping out” or its complement, dropping out. Dropping out among teens age nineteen and over is more common for the Full Cal-Learn teens (61%) than it is for the Financial Only (54%) or for Case Management Only (57%) groups. The final report is likely to shed more light on the question of the interaction between case management and financial incentives.

[16] This second assumption is probably false. It seems likely that the teens who have not met with their case manager differ from those who have met, and the teens who do not know they are subject to financial incentives are different from the teens who do know this fact. Teens who have not met with a case manager but should have may be in unstable living arrangements and are therefore hard to locate, or they may be unusually resistant to participating in any type of program, whether case management or school. It is also possible that the teens who neither seek out nor accept case management do not need the extra help because they are already on track for graduation. And some of the teens who are unaware of their eligibility for financial incentives may be inattentive to all program rules and requirements, or they may be unable to read or to recall important information.

Some of the case-managed teens may have been brought into the system by their school or have sought out case managers to help them get child care so they can attend school. These teens would be seeing a case manager because they want to attend school, rather than attending school because they are seeing a case manager. By the same token, teens who are aware of financial incentives might have become so through their participation in school. Most of these examples suggest that the teens who are fully aware of and participating in the program are likely to have been more educationally successful before they started in Cal-Learn, than are the teens not participating in the program. The graduation estimates for "ideal implementation" might not describe the latter group accurately.

Not only are the estimates presented an upper bound for what the program might achieve, but they are based on survey questions which, although they are useful, are still limited in the information they provide. The survey asked respondents about their experiences with the Cal-Learn treatments — specifically, whether they had met with a case manager, and whether they could get a bonus for making progress in school or graduating, or get a sanction for a failing report card or for not turning in a report card. Only respondents who believed they were in the Cal-Learn program were asked about their contacts with a case manager, or whether they were eligible for sanctions and bonuses. Although most teens in the three intervention cells knew they were in some version of Cal-Learn, about half of the No Treatment group did not think they were in Cal-Learn and so were not asked the questions about seeing a case manager or their eligibility for sanctions. In the analysis we treat the non-respondents to these questions (about 20% of the sample) as if they would answer "no" to these questions, but that assumption could be false.

[17] Participants who move out of a research county or become ineligible may later rejoin the active Cal-Learn research sample. These exits are classified as interim exits. Outcomes for a subgroup of exits that are classified as final exits are examined as well. Teens who graduate or age out of Cal-Learn have final exits. The exits are final because these teens no longer have any opportunity for additional Cal-Learn program experience. The majority of the results reported in this chapter are for all exited teens, combining those with interim exits and those with final exits.

[18] The timing of teens exiting from Cal-Learn is very important to our analysis and is based on county administrative data which indicate the last complete month the teen was in the Cal-Learn program. Since the teen may or may not be in Cal-Learn for some part of the subsequent month, the first full month for which we are sure that the teen is not part of the Cal-Learn program is two months after the teen's last complete month indicated in the county data.

[19] Data from the Employment Development Department were obtained for teens beginning when they turned 16 or in 1987, whichever came first, and continue through the second quarter of 1997 for this interim evaluation. The data contain quarterly earnings for each person who is employed in covered employment. Covered employment includes about 98% of total wage and salary civilian employment. Excluded from covered employment are some agricultural workers, railroad workers, state and local government employees, religious workers, and self-employed individuals. In addition, domestic workers whose employers pay less than $1,000 per quarter are exempt. The wage data reported in this section are not meant to be entirely representative of the earnings of the Cal-Learn research sample and should generally be seen as a lower bound. In particular, the survey data indicate that some teens work at odd jobs which would not be considered covered employment.

[20] The sample sizes in our analysis will vary because for the employment outcomes, data are only available for quarters in which teens are 16 years or older. In addition, some data are currently unavailable for certain of the Cal-Learn teens. Neither of these data limitations introduces any bias into our comparisons of outcomes across research groups. The teens for whom data are lacking are a random subset of the full sample and are evenly distributed among the research groups so that the research groups are equal in the amounts of data available for them. The missing data are anticipated to be available for the final evaluation report. Each section of this chapter includes a description of the samples used therein.

[21] While the survey data may cover a longer period of time than the administrative data, at this time we do not examine post-Cal-Learn employment outcomes for any teens with self-reported graduations beyond April 1997 because of the lack of availability of employment data after June 1997.

[22] Assistance after age 18 most probably represents the teen obtaining assistance for her own family as opposed to assistance received as a dependent in her parent’s case. This is a more appropriate measure of self-sufficiency.

[23] Our actual analysis reports a smaller sample size because some data are unavailable for some teens and some teens are not over 18 at the time of this interim evaluation.

[24] We find 25% of the teens having some experience with employment and public assistance since exiting. In general, most of their post Cal-Learn time is spent on assistance. It should be noted that our analysis over-estimates the amount of time with employment. Since wage data are quarterly and assistance history data are monthly, we

have bias in our measurements. For example, if a teen exited 12 months ago and was employed for one month and on aid for one month, the teen will be classified as employed 25% of the time and on aid 8% of the time.