

5974

MPR Reference No.: 8 194-620

**Off Welfare and Into Work
A Report Series of the Postemployment
Services Demonstration**

**The Struggle to Sustain
Employment:
The Effectiveness of the
Postemployment Services
Demonstration**

Final Report

April 22, 1999

*Anu Rangarajan
Tim Novak*

Submitted to:

Illinois Department of Human Services
Office of Employment and Training
Bureau of Program Design and Evaluation
100 South Grand Avenue, East
Springfield, IL 62762

Project Officer:

David Gruenfelder

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
(609) 799-3535

Project Director:

Anu Rangarajan

ACKNOWLEDGMENTS

The Postemployment Services Demonstration was initiated by the Administration for Children and Families of the U.S. Department of Health and Human Services. The Illinois Department of Human Services is serving as the lead state for coordinating the demonstration evaluation. This report was prepared by **Mathematica** Policy Research, Inc. under contract with the Illinois Department of Human Services.

Many people contributed in significant ways to this evaluation. First and foremost are the program staff in each site who gave us invaluable information on program operations. David Gruenenfelder, **the** project officer for the PESD evaluation; Peggie Powers, Sue Flaherty, and Sandra Abron in Chicago; Jerry Burns, Jodi Davich, Nan Poppe, Ted **Swigart**, and Cliff Holland in Portland; Barbara Ford-Young, Jo Ann Minnfee, and George **Denton** in San Antonio; and John Rodgers, Marilyn Kuhlman, Julie Savage, and Ron Quinn in Riverside were instrumental in the design, implementation, and oversight of the programs and were extremely helpful during the information assembly process.

The case managers in the four sites--**Ellen** Johnson, Katherine Madison, Jeffery Carter, and Patricia Collins (the job developer) in Chicago; Eann Rains, Georgiana **McElheny**, Barbara Mulcahy, and Lelia **Lomax** in Portland; Irma Brooks, Eydie Villalpando, Mary Robles, Hilda Valdez, and Elisena **Mata** in San Antonio; and Donna Kovach, Greg Webber, Mary Wood, Don Slater, Nancy Garcia, and Mary Lange in Riverside--maintained ongoing records of their contacts with the clients and provided us with invaluable detail on program services and participating clients.

Nancye Campbell, the original project officer for the demonstration, offered guidance and support throughout the design and implementation phases. **Stuart Kerachsky**, the director of the PESD evaluation during the early phases of the evaluation, has guided 'work on the evaluation since its inception. These individuals, along with Lawrence Wolf, the demonstration's current project officer, provided invaluable guidance in shaping this report and carefully reviewed an earlier draft. That draft also benefited from the thoughtful review and helpful comments of David Gruenenfelder, of the Illinois Department of Human Services; program staff in the four sites; and Alan Hershey, Mark Dynarski, and Robert Wood, of **Mathematica**.

Laura Berenson and Patricia Ciaccio carefully edited the report, and Jennifer **Baskwell** provided exemplary production support.

Finally, the clients who participated in the survey and focus groups generously and patiently gave us their time and shared their experiences with us.

We gratefully acknowledge these many contributions and accept sole responsibility for any errors or omissions in the report.

CONTENTS

I	Introduction	1
II	The Postemployment Services Demonstration	5
	A. Target Population	7
	1. Characteristics of the Study Sample	7
	2. Types of Jobs Obtained and Patterns of Employment	9
	B. Program Context and Preexisting Services	11
	C. PESD Services and Participation	14
III	Impacts on Employment, Earnings, and Welfare	21
	A. Methods and Data	21
	B. Program Impacts on Earnings, Welfare, and Income	22
	1. Did the Programs Increase Employment and Earnings?	23
	2. Did the Programs Lead to Reductions in Welfare Receipt During the Two Years After Intake?	28
	3. Did the Programs Have Effects on Income and Self-Sufficiency?	34
	C. Subgroup Impacts	36
IV	Interpretations and Conclusions	39
	A. Interpreting Program Impacts	39
	B. Conclusion	44
	References	47
	Appendix A: Supplemental Tables	49

I

INTRODUCTION

The Postemployment Services Demonstration (PESD) is the first large-scale demonstration program to examine the effectiveness of providing case management services to newly employed welfare recipients as a way to promote job retention. The demonstration arose in response to the increasing focus on work in state welfare reform initiatives established under waivers to the Job Opportunities and Basic Skills Training (JOBS) program. These efforts to increase welfare recipients' employment (either by providing direct incentives to work or by making work mandatory), combined with the general strength of the economy, have enabled many welfare recipients to find employment. It is unclear, however, whether, and for how long, welfare recipients who find jobs can *keep* their jobs.

Previous studies of welfare dynamics showed that many individuals who exit welfare through work return to welfare.¹ These findings fostered the interest of the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services (DHHS) in understanding what services promote job retention. In 1993, four states were awarded grants to establish demonstration programs to provide additional case management services to newly employed welfare recipients; the programs were fashioned broadly on the approach used in Project Match.* The major goals of these PESD programs were to promote job retention and to provide rapid reemployment for those who lost jobs, thereby reducing welfare dependency.

The passage of the 1996 welfare reform law, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), has focused further attention on job retention and the role of services in promoting job retention. PRWORA, which ended the AFDC program and awarded states block grants to help families under Temporary Assistance to Needy Families (TANF), requires most able-bodied welfare recipients to either find employment within two years of welfare receipt or lose their welfare benefits. The law also imposes a lifetime limit of five years of welfare receipt.

¹In general, research shows that between 25 and 40 percent of welfare recipients who stopped receiving assistance under the Aid to Families with Dependent Children (AFDC) program because of employment lost their jobs and returned to the program within one year (Blank 1989; Gritz and MaCurdy 1991; Harris 1991; Pavetti 1992; and Gleason et al. 1998).

²Project Match is an intensive, supportive, employment-oriented program providing services to residents of the Cabrini-Green Community in Chicago. Its approach to service delivery is based on the philosophy that most welfare recipients do not make steady progress in the labor market; Project Match counselors provide intensive case management services to help clients keep their jobs. Project Match was one of the first programs to recognize the importance of continuing to help welfare recipients after they begin their jobs (Olson et al. 1990).

Given these federal time limits on welfare receipt (and the work requirements that states have imposed on welfare recipients), it is critical that welfare recipients both find jobs and maintain employment in their move toward self-sufficiency. Although TANF's work requirement provisions and additional transitional assistance should increase the attachment of some welfare recipients to their jobs, PRWORA will also require many welfare recipients with few skills and limited job readiness to enter the labor market. These individuals are more likely to need help keeping their jobs or finding new employment quickly. As a result, many states are now assessing the types of services or programs that will enable welfare recipients to keep their jobs longer. The PESD effort provides valuable lessons for states that are attempting to establish job retention programs.

The PESD evaluation had three main objectives: (1) to better understand and characterize the experiences of individuals after they become employed and to examine the factors contributing to job loss or job stability, (2) to examine the feasibility of providing services to newly employed welfare recipients and to study issues related to service delivery, and (3) to determine whether postemployment services can help individuals keep their jobs longer or regain employment more quickly after job loss. This report focuses on the third objective and provides an update of our initial findings of the programs' effectiveness in promoting employment and reducing welfare dependency? In particular, this report examines the effectiveness of the PESD programs in increasing employment and reducing welfare dependency over a two-year period, using administrative records data on program enrollees.

Here, we summarize the key findings related to program implementation and impacts:

- ***Extensive outreach and rapid followup enabled program case managers to reach most clients and to establish prompt communications.*** The central ingredient of the programs consisted of individualized counseling and support. PESD case managers tried to maintain ongoing contact with clients in order to develop relationships based on trust. Large numbers of PESD clients (between 60 and 80 percent) in the four sites received counseling and support services during the six months after program enrollment.
- ***Overall levels of employment among sample members (in both the program and control groups) were fairly high in all four sites. Welfare receipt among sample members also varied across the sites and reflected the level of generosity of the welfare programs in each site.*** The demonstration programs operated during a period of economic strength, which helped many welfare recipients who found jobs keep these jobs or quickly find other jobs.⁴ Control group members, who did not receive any PESD services, were employed between 60 and 80 percent of the time during the two-year period after job start. Welfare receipt in all four sites decreased gradually over time. In the sites with more generous welfare programs, nearly 40 to 55 percent of all sample members

³A list of project reports completed to date is given at the end of this report.

⁴In addition, two of the four PESD programs enrolled more job-ready individuals into the demonstration programs who may have been more able to maintain employment.

continued to receive welfare at the end of 24 months after job start, compared with less than 30 percent in the sites with less generous welfare programs.

- ***Overall, the programs had little effect on increasing earnings, reducing welfare, or promoting the move toward self-sufficiency.*** We found indications that one program had small effects on promoting employment and reducing welfare, another program had a small effect on promoting employment but did not reduce welfare receipt, and a third program reduced welfare receipt without increasing earnings. In the fourth site, the program had no effect on either employment or welfare receipt. Several factors may account for these findings, including the pioneering nature of the PESD programs, the populations they served, and contextual factors such as the strong economic conditions and services already available in the welfare offices in the communities. These factors are discussed in greater detail in Chapter IV.

The overall findings on the modest effects of PESD services are disappointing. However, our comprehensive study of the PESD programs and of their client population has enabled us to identify several operational lessons that can serve as a guide for other programs considering providing job retention services.

- . ***Programs should attempt to tailor services to meet client needs and target clients appropriately for different types of job retention services.*** We observe from the PESD data (as well as other national data) that welfare recipients who find jobs are fairly diverse in their characteristics, in the types of jobs they find, and in their ability to maintain employment. Between 60 and 80 percent of PESD control group members maintained employment for the two-year period after job start. These individuals would probably need only child care or Medicaid assistance, or other short-term assistance (such as access to resource rooms to find job leads or update their resumes). The remaining 20 to 40 percent of welfare recipients who found jobs had a much harder time holding on to their jobs. Programs should attempt to target such clients for ongoing case management support and other more intensive services. Identifying up front who is likely to need more ongoing assistance will be a challenging task. Researchers are currently developing targeting strategies that suggest that characteristics such as education level, health status, starting wages, and availability of benefits on the job may be good indicators of subsequent employment outcomes. These targeting strategies, as well as other assessment mechanisms, need to be tested for effectiveness to find the best targeting mechanisms.
- ***Simplifying service delivery mechanisms can enable program staff to focus more on service coordination and on meeting other needs of clients.*** Some states have large paperwork requirements for accessing supports such as child care funding that may make it difficult for some individuals to get the funding they need. In some states, clients who have lost jobs may have to go back on welfare before they can use job placement services provided by welfare

agencies. Altering administrative procedures so that clients can more easily access services and integrating functions across agencies to eliminate duplication and delays could give program staff more time to meet clients' other needs more efficiently.

- ***Programs considering adding job retention assistance to their current set of services should carefully assess what services their programs currently provide and make changes to fill gaps in their current systems.*** Many states are considering providing job retention programs. To the extent that these programs offer services that are currently available (or are very similar to services available for all welfare recipients), programs may find that these services do not yield large "program impacts." Programs should use available data or gather new data to carefully assess the extent to which their current systems are meeting clients' job retention and job advancement needs and identify the current gaps in their systems. They can gather data from current and former employed welfare recipients, as well as from other sources (such as case managers and other service providers), to identify the needs of newly employed welfare recipients in their areas. Based on a careful assessment, programs can make significant changes to their current systems to offer a comprehensive set of supports to clients to help meet programs' job retention and advancement goals.

II

THE POSTEMPLOYMENT SERVICES DEMONSTRATION

Sustained employment is the primary route to economic self-sufficiency. The 1996 welfare reform law recognizes this relationship by requiring states to intensify their efforts to move individuals from welfare to work. However, as states impose work requirements and time limits on welfare recipients, many individuals who are not fully job ready will enter the job market. These individuals are likely to have difficulty obtaining jobs, and even greater difficulty sustaining employment. Therefore, it is important to identify strategies that help welfare recipients keep their jobs, and, if necessary, quickly find new ones.

Between spring 1994 and fall 1996, four sites (Chicago, Illinois; Portland, Oregon; Riverside, California; and San Antonio, Texas) operated demonstration programs under grants from ACF. Welfare recipients who had participated in the states' JOBS programs and had found employment during a 12- to 18-month period between March 1994 and December 1995 were identified soon after job start and were enrolled in the demonstration. The sites enrolled between 800 and 1,500 welfare recipients who had recently found jobs during this period (Table II.1). One-half to one-third of the individuals in each site were selected at random to receive program services; the rest, as control group members, continued to receive the regular services available to employed welfare recipients in their respective states.¹

TABLE II. 1

THE STUDY SAMPLE

	Sample Sizes			
	Chicago	Portland	Riverside	San Antonio
Overall	1,545	804	1,506	778
Program group	552	425	500	386
Control group	993	379	1,006	392

¹The term "employed welfare recipients" refers to individuals who found jobs while receiving welfare. Some of these individuals may have left welfare either when they obtained employment or shortly thereafter, whereas others may have continued to receive welfare while employed.

PESD services were designed to achieve two objectives: (1) to help welfare recipients keep their jobs, and (2) to help individuals who lost their initial jobs quickly obtain new ones. Toward this end, ACF established the following key guidelines for the design and delivery of demonstration services:

- ***Serve Nonexempt JOBS Participants.***² The PESD programs were to primarily serve AFDC recipients who were required to participate in JOBS program activities. Those assigned to the PESD programs would continue to receive services after leaving AFDC, even if an increase in earnings was not the reason for case closure.
- ***Focus on Job Retention and Reemployment.*** Job clubs and job search services provided under the JOBS program would be made available for an extended period to all individuals assigned to the PESD programs who lost their jobs or who wanted to obtain better ones, regardless of their JOBS program status.
- ***Extend Case Management Services.*** Demonstration sites were to assign program group members to PESD case managers. These case managers were to maintain regular contact with their clients, identify problems that might affect employment adversely, and intervene as early as possible to help clients keep their jobs.
- ***Adopt a Flexible Service Delivery Approach.*** The involvement of case managers and the services delivered were to be tailored to meet the needs of individual participants. The PESD programs were to recognize that some clients would need intensive, long-term help, while others would need little or no assistance.
- ***Enhance Temporary Financial Support.*** The PESD programs were to provide financial support over and above what was available to newly employed welfare recipients under the JOBS program. The PESD programs could increase the amounts of payments and also make payments cover a wider range of expenses.

The case management and financial support services were expected to promote job retention and reemployment, either directly or indirectly. In addition, the personalized efforts to promote employment were expected to translate into reductions in the number of people receiving welfare and the amounts of benefits received.

All four sites built their PESD programs on the common framework provided by the demonstration design guidelines, but actual implementation of guidelines and delivery of services varied. The four sponsoring agencies (1) had slightly different populations; (2) had different program contexts (that is, different levels of preexisting services for newly employed welfare recipients); and (3) provided postemployment services to program participants in different ways. To interpret more accurately the effectiveness of the four

²AFDC participants who met certain criteria related to the age of their children or to their education status and were required to participate in the states' JOBS program were called "nonexempt" participants.

programs, in the rest of this chapter, we briefly describe the features of each state's program design.

A. TARGET POPULATION

The federal guidelines specified that the PESD programs focus primarily on nonexempt JOBS clients who had recently obtained employment and serve all clients, regardless of their subsequent AFDC status. The four sites followed these broad guidelines but targeted different groups of welfare recipients for enrollment into the demonstration? The programs in Portland and San Antonio had more job ready clients because they enrolled individuals who had recently participated in their JOBS program job placement centers and found employment. The Portland program targeted JOBS clients who had been assigned to job placement centers after completing other JOBS components (or who were deemed job ready at the time of their JOBS assessments) and had subsequently obtained employment. The San Antonio program primarily served clients who had their high school diplomas or General Educational Development [GED] certificates, had worked for at least 12 of the previous 24 months, or had received certificates from a training program. In contrast, the PESD programs in Chicago and Riverside included in program enrollment all welfare recipients who had been referred to or had participated in their JOBS programs and who had recently obtained employment that was reported to the JOBS program staff! Thus these two sites had a slightly more diverse client population than did the PESD programs in Portland and San Antonio. Finally, all four PESD programs served clients regardless of whether they had full- or part-time jobs.⁵

1. Characteristics of the Study Sample

At the time of program entry, the average sample member was almost 30 years old. Although the programs did not exclude teenage parents, few such individuals were enrolled, and only four to seven percent of clients served were age 20 or younger (Table II.2).⁶ At the

³The PESD programs were not voluntary programs. All four PESD programs enrolled individuals who were identified by JOBS case managers or other program staff as newly employed. In general, the four PESD programs' "targeting" was not a decision to explicitly serve some groups they thought were more in need of services. Rather, selection for program enrollment was more a function of how the sites set up their random-assignment processes and procedures they used for identifying people for enrollment into the demonstration programs.

⁴To focus on early intervention, the Chicago PESD program screened out individuals whose jobs had started one month before the report of the job was received. The Portland PESD program initially screened out individuals whose jobs began more than two weeks before they were referred to the demonstration for program enrollment, but low intake volume led it to eliminate this screening criterion.

⁵The Riverside program required individuals to have started jobs involving at least 15 hours of work per week; the San Antonio program served individuals who were working at least 10 hours per week.

⁶The Illinois Department of Public Aid, which was operating a Young Parent Services program to provide teenage parents with intensive ongoing services, chose to focus its PESD program on adults. Similarly, targeting more job ready individuals probably had the effect of excluding many teenagers in Portland and San Antonio.

TABLE II.2
CHARACTERISTICS OF THE SAMPLE AT PROGRAM INTAKE
(In Percentages)

	Chicago	Portland	Riverside	San Antonio
Age (in Years)				
20 or younger	6.7	5.8	3.5	5.9
21 to 25	29.9	30.5	18.6	28.9
26 to 30	22.4	22.9	22.3	24.8
31 to 35	21.2	19.5	25.9	19.8
36 or older	19.8	21.3	29.7	20.7
(Mean)	(29.5)	(29.5)	(31.9)	(29.5)
Race				
Hispanic	10.2	2.1	33.4	67.6
Black, non-Hispanic	82.3	25.9	17.1	19.0
White, non-Hispanic	7.1	68.1	47.2	13.1
Other, non-Hispanic	0.4	3.9	2.4	0.3
Number of Children				
1 or none	36.9	51.4	45.3	37.3
2 or 3	52.3	42.1	46.8	52.0
4 or more	10.8	6.5	7.9	10.7
(Mean)	(2.1)	(1.7)	(1.9)	(2.0)
Age of Youngest Child (in Years)				
Younger than 3	33.5	40.2	8.0	30.2
3 to 5	31.3	27.3	51.5	39.0
6 or older	35.2	32.5	40.6	30.8
(Mean)	(5.1)	(4.8)	(6.1)	(4.7)
Teenager at Birth of First Child	51.3	40.9	35.3	44.4
Education				
No high school diploma or GED	42.7	25.3	36.6	12.9
High school diploma or GED	40.0	63.2	46.2	60.9
More than high school diploma or GED	17.3	11.5	17.2	26.2
JOBS Status--Mandatory	75.2	96.4	100.0	68.4
Employed During Two Quarters Preceding Program Enrollment	27.6	34.2	21.0	32.8
AFDC Status During Year Preceding Program Enrollment^a				
Receiving for only part of year	18.3	37.2	2.1	48.5
Receiving for entire year	81.7	62.8	97.8	51.5
Sample Size^b	1,506 to 1,545	794 to 804	1,397 to 1,506	750 to 778

SOURCE: PESD administrative records data.

^aFor nearly 35 percent of the sample members in Portland, information on AFDC status for the full year preceding program enrollment was missing. This information was missing for 6 to 15 percent of the sample members in the three other sites.

^bSample sizes fall in a range because of differing numbers of missing values for different characteristics.

time of enrollment, the average sample member had two children. The youngest child was, on average, five years old.

Education levels and work experience of sample members varied across the sites, reflecting the difference in the populations they had selected. For example, only about 10 to 25 percent of the sample members in San Antonio and Portland had failed to obtain high school diplomas or GEDs, compared with roughly 35 to 40 percent in Riverside and Chicago. Similarly, nearly 33 to 35 percent of the sample members in San Antonio and Portland had some earnings in at least two of three quarters in the year preceding program entry, compared with about 21 to 28 percent of the sample members in Chicago and Riverside.

The Riverside and Portland programs adhered closely to the requirements to serve nonexempt JOBS clients. Thus, all Riverside clients were nonexempt JOBS participants, as were more than 95 percent of clients in Portland. In contrast, between 65 and 75 percent of clients in Chicago and San Antonio could be classified as nonexempt participants, suggesting that about 35 and 25 percent of the clients in these sites were JOBS-exempt welfare recipients.

2. Types of Jobs Obtained and Patterns of Employment⁸

This section describes the types of jobs that sample members found and how long they stayed employed. It is based on a survey of a random subsample of 1,200 sample members in the four PESD sites conducted approximately a year after program enrollment. So as to avoid confusion between program impacts and observed behavior in the absence of the program, the description of employment patterns includes only those assigned to the control group.

Sample members enrolled in the demonstration found jobs that were similar to those found by welfare recipients nationally.⁸ Sample members obtained jobs that paid, on average, \$6 per hour (Table II.3). More than 40 percent of the sample members, however, earned \$5 an hour or less, and only 18 percent of the sample found jobs that paid over \$7 an hour when they started their jobs. Most of the sample members worked close to full time. Monthly earnings for these newly employed welfare recipients were low, reflecting their low hourly wages; less than a third of the sample members found jobs that paid over \$1,000 a month (in 1996 dollars).

Many of the jobs that sample members found were entry-level ones and, consequently, did not offer many fringe benefits. Less than half of the jobs offered these workers any health insurance or paid vacation, and less than a third of the jobs offered them any paid sick leave. Most of the sample members found jobs in service occupations, in administrative support jobs such as clerical work, or in sales positions. Nearly 17 percent of the sample members had found their jobs through temporary agencies.

⁸A more detailed description of clients' employment experiences can be found in Rangarajan (1996).

⁸See Brandon (1995) and Rangarajan, Schochet, and Chu (1998) for a description of the types of jobs found by welfare recipients prior to the passage of the PRWORA.

TABLE II.3

JOB CHARACTERISTICS
(Starting Job)

	Percentage of Sample Members
Hourly Wage	
Less than \$4.00	3.3
\$4.00 to \$5.00	39.5
\$5.01 to \$7.00	39.4
\$7.01 to \$10.00	14.9
More than \$10.00	3.0
(Average hourly wage)	(\$5.90)
Weekly Hours of Work	
20 hours or less	17.4
21 to 34	20.9
35 to 39	10.3
40 or more	51.3
(Average hours of work)	(33.9)
Shift Worked	
Day/afternoon shift	68.7
Evening/graveyard shift	13.1
Variable shift	18.2
Temporary Jobs	24.3
Found Any Job Through Temporary Agencies	17.6
Monthly Earnings	
Less than \$200	2.2
\$201 to \$400	9.7
\$401 to \$600	15.2
\$601 to \$800	23.0
\$801 to \$1,000	19.4
More than \$1,000	30.4
(Average monthly earnings)	(\$864)
Benefits Offered on the Job	
Health insurance	45.1
Paid vacation	45.3
Paid sick leave	32.4
Occupation	
Other administrative support	27.6
Sales	20.2
Health services	10.7
Manager/professional/technical	7.3
Secretarial	2.6
Food and beverage preparation	4.7
Private household protective services	6.5
Other services	7.9
Mechanical/construction/production	9.8
Other	2.8

SOURCE: PESD follow-up surveys conducted with 1,236 sample members approximately a year after random assignment.

Overall, sample members enrolled in the demonstration maintained high levels of employment. Nearly 58 percent of control group members were continuously employed from the time they started their jobs until the end of a year from the job start (Table II.4). Among the remaining 42 percent who had at least one period of nonemployment, half had found another job within a year of their initial job start (intermittent workers), while the other half stayed unemployed through the end of the year. Overall, sample members were employed almost 10 months, on average, during their first year after job start (not shown).⁹ These employment levels are high compared to employment levels found in studies using national data prior to the passage of the PRWORA (see Rangarajan, Schochet, and Chu 1998). We suspect that the high employment rates we observe in the PESD study are driven at least in part by the strong economic conditions that prevailed during the demonstration evaluation period.

B. PROGRAM CONTEXT AND PREEXISTING SERVICES

Before discussing the special services offered by the PESD programs, it is useful to describe both local program contexts and the services available to newly employed welfare recipients in the JOBS program. As we describe in this section, the four sites varied widely in the generosity of their welfare programs, work incentives, and resources available to newly employed welfare recipients.

Welfare Benefits. At the time of the demonstration, California had the sixth most generous welfare program in the country; in 1994, it provided maximum benefits for a family

	Percentage of Sample Members
Continuously Employed in Same Job	39.3
Continuously Employed but Switched Jobs	18.4
Worked Intermittently (More than One Job)	21.2
Worked in Starting Job and Stopped	21.2
Sample Size	468

SOURCE : PESD follow-up surveys conducted approximately a year after random assignment.

NOTE : These patterns of employment pertain to status at the end of the first 12 months following the first job start.

⁹Those who worked in the starting job and then stopped averaged just over five months of work during the one-year period, while those with intermittent jobs worked a little over eight months during this period.

of three of \$607 per month (Table II.5). By comparison, the maximum grant in Texas of \$184 for a family of three was half the national median of \$366. AFDC recipients in Oregon received benefits that were substantially higher than the median; in 1994, a family of three with no source of income could receive a maximum benefit of \$460 per month. A family of three in Illinois received grants that were about equal to the national median--\$367 in 1994.

Work Incentives. Two of the four sites had incentives encouraging all welfare recipients to obtain work (Table II.5). Illinois had received a waiver to disregard indefinitely two-thirds of earnings when calculating AFDC benefits. In addition to providing high benefit levels, which allowed many individuals to work and retain welfare benefits, California also had received a waiver to maintain indefinitely the disregard of \$30 and one-third of earnings. These waivers enabled more individuals in Chicago and Riverside than in the two other sites to continue to receive welfare while employed. In San Antonio, in contrast, the combination of a standard disregard policy and very low benefit level caused nearly all recipients who found full-time jobs to lose AFDC eligibility immediately and those with fewer than full-time hours to lose eligibility four months later, when the disregard ended. Although AFDC recipients in Portland received benefits substantially above the national median, they faced standard earnings disregard policies when they began working, leading to relatively large decreases in welfare benefits approximately four months after job start.

JOBS Program Job Retention Services. Control group members were not eligible to receive PESD services. In theory, they could receive job retention services under the JOBS

TABLE II.5
LOCAL PROGRAM CONTEXTS

	Chicago	Portland	Riverside	San Antonio
Welfare Benefits for a Family of Three (Monthly Amount; in 1994)	\$367	\$460	\$607	\$184
State Earnings Disregard	Two-thirds of earnings indefinitely	\$90 + \$30 and one-third of remaining earnings for first four months	\$90 + \$30 and one-third of remaining earnings indefinitely	\$90 + \$30 and one-third of remaining earnings for first four months
AFDC Benefits for Welfare Recipients Earning \$5 per Hour and Working 30 Hours per Week				
First four months	\$150	\$107	\$254	\$0
Subsequent months	\$150	\$0	\$254	\$0
Initial Employment Expenses Available Under the JOBS Program	\$400 within first 30 days of job start	No formal limits: vary depending on clients' needs	Payment for single work expense incurred in first week of employment	One payment of less than \$65 over a 12-month period (for expenses in first month of employment)

program for 90 days after beginning employment. In practice, however, regular JOBS program services for welfare recipients who began employment were limited. To some degree, they varied across the sites, and control group members in Portland were more likely than those in the three other sites to have received follow-up services. In Portland, placement center case managers who served JOBS program participants had relatively modest caseloads, and the counselors had previously established contact with clients in the placement center. Both these factors enabled the case managers to continue to provide some counseling after clients began working.

The other sites offered more limited services to newly employed JOBS program participants. Although JOBS program case management services were available for 90 days after job start, large caseloads of unemployed welfare recipients prevented case managers in these sites from serving employed clients to any substantial extent. Through the JOBS program, each site also offered limited work-related expense allowances to employed welfare recipients soon after job start (Table II.5). However, these payments typically were made infrequently, and restrictions were imposed on both the amounts that could be paid and the types of expenses that could be covered.

JOBS Program Reemployment Services. In two of the four sites, control group members had access to quick reemployment services as part of the JOBS program. In Riverside, the nationally recognized Greater Avenues to Independence (GAIN) program provided strong encouragement for individuals to find jobs and leave welfare.” Therefore, many control group members who lost their jobs were likely to be immediately subject to the JOBS program emphasis on finding another job, and would be able (or even required) to participate in job search or other employment-related activities through the GAIN program.” In Portland, all clients had used and had access to a resource room for job search activities. In addition, they had previously established relationships with the placement center staff, which would have made it easier for them to go to the placement center and receive employment-related services. Finally, a work first policy was initiated in Portland for welfare recipients who lost jobs. As a result, control group members who lost jobs and returned to welfare were sent to a two-week job search program; if they did not find a job in those two weeks, they were sent back to the placement center.

Other Support Services. The availability of such support services as health care, child care, and temporary financial assistance varied from site to site. All sites had policies allowing transitional medical coverage for one year for clients who reported exiting welfare because they had obtained employment and who were recorded as having done so. In addition, each site established its own program to serve medically needy or low-income individuals for periods beginning after their transitional coverage had ended.

¹⁰The GAIN intervention in Riverside has a strong work orientation and is nationally recognized as a program that makes a strong effort to help individuals find jobs and leave welfare. Because of the strong pressure in the GAIN program for welfare recipients to be employed, welfare recipients who lose jobs are required to immediately find new ones.

“Because California has such high benefits, many welfare recipients who found jobs continued to receive welfare and would be likely to be subject to JOBS rules immediately upon job loss.

Transitional child care subsidies were available to former AFDC recipients for a year in all four sites, as required by law.¹² In Oregon and Illinois, other forms of child care subsidies were available to those who had exhausted their transitional child care benefits. In Oregon, former recipients who exhausted their transitional benefits after one year could obtain financial assistance to help defray child care costs easily, through the states' Employment-Related Day Care program. Illinois also provided subsidies to former AFDC participants who had exhausted their transitional benefits, but obtaining these benefits was more difficult than in Oregon. For example, individuals in Illinois who had exhausted their year of transitional benefits usually were placed on relatively long waiting lists for subsidized child care slots.

In the two other sites, subsidies for child care were available to a lesser extent. In principle, AFDC recipients in Riverside could receive a disregard of child care expenses in amounts prescribed by Title IV-A of the Social Security Act. However, according to program staff, few actually received it. In San Antonio, some subsidized child care slots were available for low-income clients who left AFDC but did not get transitional child care or who exhausted their year of transitional benefits, but waiting lists for these child care programs usually were long.

C. PESD SERVICES AND PARTICIPATION

Case management was the cornerstone of the PESD programs. All four sites established their postemployment services units as extensions of their JOBS programs and hired case managers to provide retention services. Every client identified for the demonstration program enrollment was assigned to a PESD case manager. The case manager tried to maintain regular contact with the client in order to identify and provide services designed to alleviate emerging problems. In Chicago, Riverside, and San Antonio, PESD case managers took over the functions that JOBS case managers would have performed for the clients assigned to them. Therefore, they had the same access to databases and JOBS program services and the same authority to issue supportive service payments as did the regular JOBS case managers in their states. In Portland, PESD case managers did not perform the duties that the JOBS case managers did in this state. Therefore, PESD clients who were still receiving welfare also had a regular JOBS program case manager assigned to them. PESD case managers in Portland, were, however, stationed in the placement centers and they worked closely with JOBS staff members.

Because job-threatening problems could develop soon after job start, the PESD programs targeted and enrolled recently employed welfare recipients for the demonstration. Case managers tried to contact program group members as quickly as possible after program enrollment. During these contacts, case managers informed clients about demonstration services, attempted to develop trust and rapport, and sought to identify immediate issues that could affect employment.

¹²Transitional child care was used sparingly in Riverside. According to agency staff members, many employed clients who left AFDC did not wish to comply with ongoing reporting requirements for transitional child care, did not know or did not recall being advised of the transitional child care program, or were terminated from AFDC for reasons other than employment (Haimson, Hershey, and Rangarajan 1995).

Despite some site-by-site variation in service delivery, PESD case managers provided five key services to program participants.¹³

1. **Counseling and Support.** PESD case managers provided individual counseling on such topics as money management and budgeting, contingency planning for child care and transportation, workplace behavior, and ways to deal with unsupportive family members or friends. Staff members also provided encouragement and moral support and gave clients opportunities to discuss their frustrations and problems. Individual counseling and support was the service that both staff and clients valued the most highly.
2. **Job Search Assistance.** PESD case managers and other staff members provided assistance to clients who had lost jobs or who wanted to obtain better ones. Job search services ranged from individualized job search assistance from PESD case managers (including specific job leads and general guidance on job search methods) to more structured job search activities available through the JOBS program (including workshops and referral services).¹⁴
3. **Help with Benefits.** Case managers helped clients apply for and resolve eligibility or benefit problems with transitional Medicaid, transitional child care, AFDC, and food stamps. They also helped clients access child care funding subsidies, particularly in the Chicago site. In addition, case managers provided clients with information via mailings on how to obtain the earned income tax credit (EITC).
4. **Service Referrals.** Case managers provided clients with assistance in finding services, including health care or child care providers, referrals to education programs or skills training, and referrals to legal aid or specialized individual or family counseling.
5. **Support Service Payments. for Work-Related Expenses.** The programs liberalized their agencies' policies on payment of transitional work-related expenses, allowing clients to obtain more frequent payments, larger payments, or payments for a wider array of expenses than was normally allowed under JOBS program rules. These payments typically covered temporary expenses associated with employment, job search, and minor emergencies that had the potential to affect employment (such as having a car break down or not being able to afford suitable work clothes).

PESD case managers tried to maintain a flexible and less bureaucratic approach to service delivery by being informal and trying to minimize an officious approach. They provided individualized services to clients and stressed personal and informal

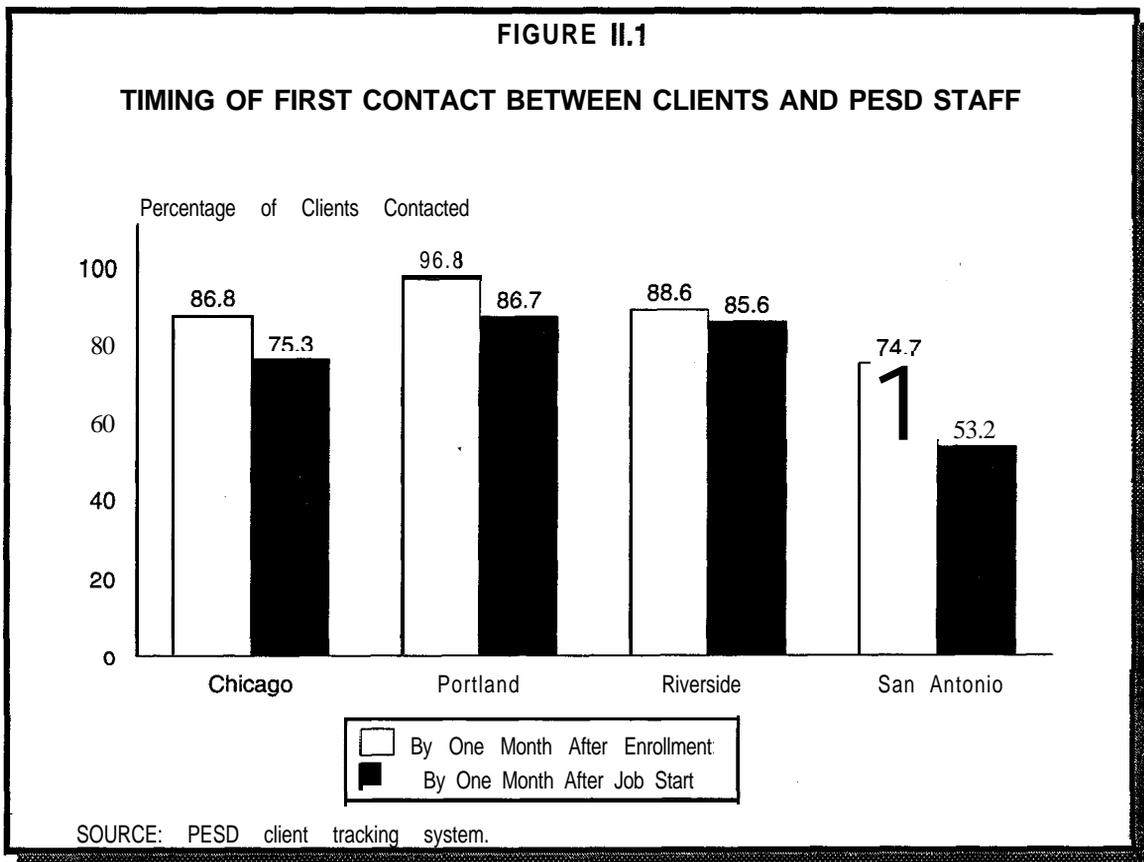
¹³For a more detailed description of program design and services at each of the four sites, see Haimson, Hershey, and Rangarajan (1995). See Haimson and Hershey (1997) for an in-depth discussion of the use of postemployment services.

¹⁴The Chicago program included a job developer who worked half her time on PESD-related activities.

communications. Case managers attempted to maintain regular contact with clients, sent them cards and newsletters, and met them at times and places that were convenient for the clients. The case managers sometimes worked in the evenings or on weekends so they could more easily reach clients who worked during the day. To make it easy for clients to contact them at various times, the case managers either used devices such as beepers or cellular phones, or had telephone answering machines or voice mail systems in their offices.

Extensive outreach and rapid **followup** enabled PESD case managers to reach most of the clients assigned to them, and the case managers established prompt communications with most clients.” In three of the four sites, at least 75 percent of all clients were contacted by a PESD case manager (by telephone or in person) within one month of job start (Figure II. 1). In San Antonio, slightly more than half the clients were contacted personally within one month of job start.¹⁶

PESD case managers believed that ongoing contact, especially early in their relationships, would be required to build the trust enabling clients to freely voice their concerns. The sites’ schedules for maintaining this contact varied to some degree. The



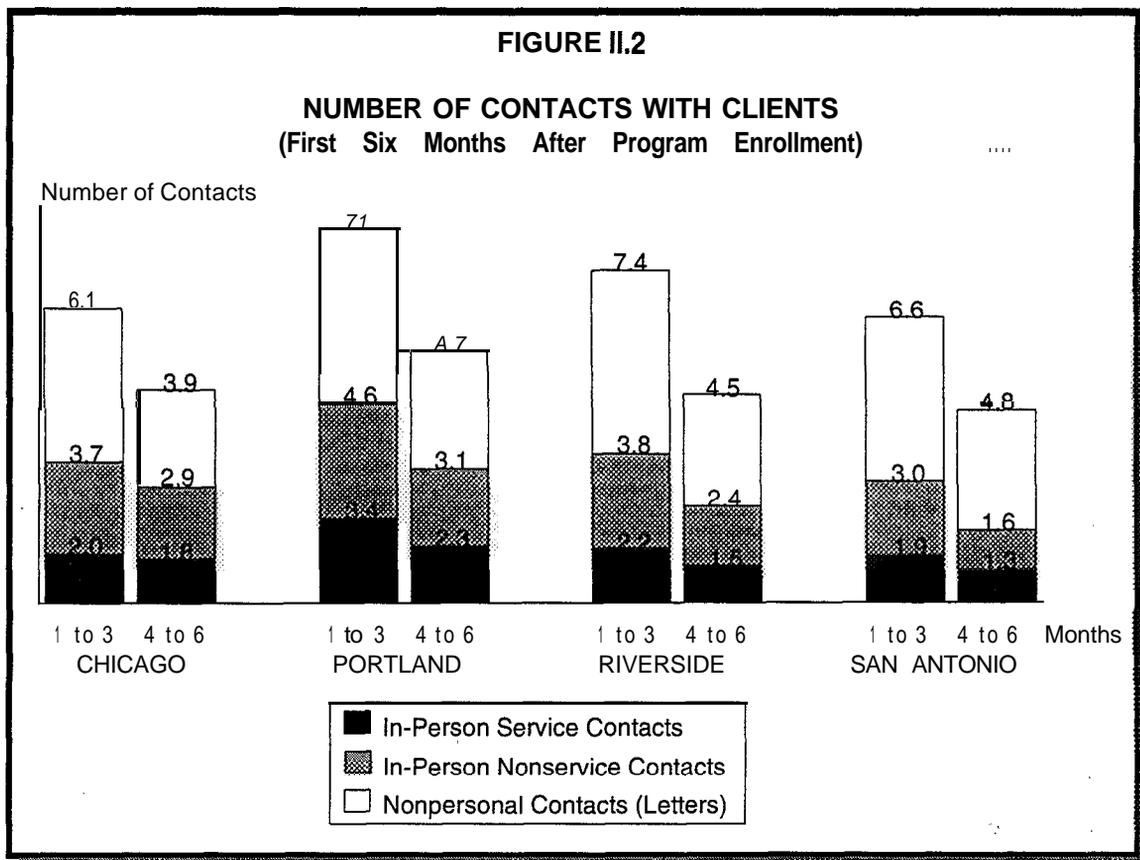
¹⁵All clients also routinely received letters informing them about the programs soon after they were assigned to the program group.

¹⁶In Chicago, Portland, and Riverside, individuals were enrolled into the program soon after job start, so there was only a short gap between job start and program enrollment. In San Antonio, employment service staff members contacted employers to verify their clients’ employment status before individuals were assigned to the program. This extra step extended the interval between job start and program enrollment in this site.

Chicago program established an intensive schedule for ongoing contact with clients, and case managers had to report periodically to their supervisors about these contacts. In the other sites, the planned schedules specified less frequent contact, and case managers might have adhered to the schedules less closely, especially if a client did not want to maintain contact. During the first three months of program enrollment, case managers in all the sites had, on average, slightly more than two contacts per month with each client; about half these contacts were direct (by telephone and in person). Service contacts (as opposed to general counseling or “keep in touch” contacts) were less frequent--case managers had about one service contact per month during the first three months after program enrollment in three of the sites; in Portland, they had about 1.5 service contacts per month, on average, during this period.

The sites expected to maintain some degree of contact but also to provide fewer contacts and services with time. As Figure II.2 shows, the average number of contacts did fall, possibly because clients’ concerns decreased over time. It is also likely that growing caseloads and greater than expected difficulties both in initially reaching and in maintaining contact with some clients caused programs to alter their strategies and schedules for staying in touch, especially during the latter part of the demonstration period.

By the end of the enrollment period, each PESD case manager had been assigned an average of 100 to 170 clients. In general, the PESD programs expected to maintain contact with clients during the first few months after job start and anticipated that the need to maintain contact would decline rapidly during later months. However, many clients continued to have problems, and many quickly lost their jobs, so their need for reemployment and retention services was ongoing. After a year from job start, case



managers in Chicago, Portland, and Riverside PESD programs had contacts with 41 to 50 percent of their clients where some service was provided (not shown). Case managers in the San Antonio PESD program had these types of service contacts with about 19 percent of their clients.¹⁷

Individual counseling and support was the most commonly delivered PESD service. Between 60 and 80 percent of PESD clients in each of the four sites received counseling and support during the first six months after PESD program enrollment (Table II.6). Approximately 40 percent of clients across the four sites received job search assistance, and substantial number received help obtaining benefits (such as child care, AFDC, or food stamps) or other resolution of benefit problems.

Service utilization among clients fell over time, reflecting reduction in clients' needs, as well as a program design in which service provision was more intensive during the early months after job start (Table II.7). The reduction in the incidences of services was greatest in Riverside and San Antonio.¹⁸ Despite the reductions in service use, a large number of

TABLE II.6
INCIDENCE OF DIFFERENT CASE MANAGEMENT SERVICES
(First Six Months After Program Enrollment)

	Percentage of PESD Clients Who Ever Received Service			
	Chicago	Portland	Riverside	San Antonio
Counseling ^a	58.5	81.2	81.0	65.9
Job Search Assistance ^b	37.9	43.1	40.2	42.4
Help with Accessing Benefits ^a	50.9	32.2	23.6	64.5
Referral to Child Care Provider ^a	11.2	12.6	23.6	13.8
Referral to Other Services ^a	39.1	33.6	10.4	18.3
Work Expense Payments ^c	59.1	63.9	49.6	16.6
Sample Size	552	357	500	290

SOURCE: PESD service tracking and JOBS program data.

^aDerived from PESD service tracking data.

^bDerived from PESD and JOBS program tracking data.

^cDerived from JOBS program tracking data.

¹⁷As we discuss later, San Antonio had the highest employment level and lowest welfare receipt level among sample members across the four sites; this may partly account for the lower level of service contact in this site.

¹⁸Table II.7 shows the incidence of services provided by PESD case managers during the first six months after program enrollment and for the next six months after program enrollment for an early cohort of sample members for whom we had one year of service tracking data.

TABLE II.7
INCIDENCE OF PESD CASE MANAGEMENT SERVICES,
BY TIME AFTER ENROLLMENT

	Percentage of PESD Clients Who Ever Received Service							
	Chicago		Portland		Riverside		San Antonio	
	Months		Months		Months		Months	
	1-6	7-12	1-6	7-12	1-6	7-12	1-6	7-12
Counseling	62	50	88	70	81	39	70	38
Help With Accessing Benefits	56	28	40	25	24	13	68	33
Referral to Child Care Provider	16	5	13	12	23	8	16	2
Referral to Other Services	49	38	44	27	2	10	22	15
Sample Size	321		197		365		124	

SOURCE: PESD service tracking and JOBS program data.

NOTE: This table contains similar information to Table 11.6, except that it includes only an early cohort of sample members for whom we had one year of service tracking data. Consequently, sample sizes are smaller here than in Table 11.6. This table allows us to examine service receipt over the 1 to 6 month period and also during the 7 to 12 month period after enrollment for an early cohort of PESD enrollees.

sample members were still receiving services six months after program entry, especially counseling services, and help with accessing benefits.

The PESD programs were pioneering attempts to address the issue of job retention for welfare recipients; therefore, not all program elements worked as had been hoped. Although ACF gave the states general guidelines with respect to providing case management services, no other postemployment service programs existed to serve as models. Consequently, identifying the specific types of postemployment services to be provided, as well as determining how to deliver them effectively and **efficiently**, required the PESD case managers to exhibit both creativity and flexibility. As case managers familiarized themselves with their clients' needs and reactions to efforts to provide services, they altered aspects of service delivery as necessary. For example, program staff in all four sites had anticipated that case managers would maintain contact with clients' employers and would resolve workplace conflicts or other workplace issues. However, most clients did not want this service, so this component of case management never attained the expected level of importance. Conversely, case managers in some sites had to devote much of their time to correcting errors in welfare benefit payments or in resolving problems with child care payments. Program impacts, **discussed** in the next chapter, should be interpreted in the context of both the formative nature of the PESD programs and their evolutionary character.

III

IMPACTS ON EMPLOYMENT, EARNINGS, AND WELFARE

The PESD programs used a case management approach to support the employment pathways that welfare recipients take toward self-sufficiency. In this way, they sought to promote sustained employment, thereby increasing earnings and reducing welfare dependency in a manner that would ease clients' transition from welfare to work. To measure the extent to which the PESD programs met these objectives, we examined two questions:

1. Did the programs increase employment and earnings during the two years of followup?
2. Did the programs reduce clients' reliance on AFDC and food stamps during the two years of followup?

Overall, we found that the programs had small to no impacts on employment, earnings, or welfare receipt. In Chicago, we observe small positive effects on promoting employment and reducing welfare and, in Riverside, small positive effects on promoting employment but no reduction in welfare receipt. The San Antonio program reduced welfare receipt without increasing earnings; that program had small negative effects on employment. Finally, the Portland program had no effects on either employment or welfare receipt. Several factors may account for these modest findings, including the pioneering nature of the PESD programs, the services they delivered, the populations they served, and contextual factors, such as strong economic conditions and services already available in the communities. However, the findings do suggest that case-management-based programs that are similar to those in the PESD and that serve similar populations might be no more successful in promoting job retention. Programs considering providing job retention services should use the lessons learned from the PESD evaluation as they consider setting up their own job retention programs.

A. METHODS AND DATA

To evaluate the programs' effectiveness, we used a random-assignment design, which ensures the creation of two groups of individuals that initially differ only in their access to the program. Because subsequent differences between the groups can be attributed to the incremental services offered by the program, we estimated impacts by comparing mean outcome levels for program and control group members at different points after random assignment. This chapter includes figures that contain program group means and control

group means for key outcomes.¹ We also indicate where estimated impacts are statistically significant--that is, where we can say with a 90 percent confidence level that the impact is significantly different from zero.²

The impact findings are based on administrative records data collected for all sample members who were enrolled in the programs. To measure quarterly earnings, monthly AFDC receipt and benefit amounts, and monthly food stamp receipt and benefit amounts, we obtained administrative data from the states on sample members' earnings, welfare receipt, and benefit amounts for the two-year period after random assignment.³

The extent to which we are likely to observe impacts on key outcomes depends on the extent to which the PESD program staff provided services that promoted these outcomes, as well as on the extent to which control group members received services that might affect the outcomes. For example, if PESD case managers assisted or persuaded those who lost jobs to find new employment quickly, and no such assistance or persuasion was available to control group members, then we would expect to observe employment impacts. However, if control group members who lost jobs and returned to welfare were persuaded by JOBS program case managers to find other employment quickly, then we would observe much smaller program impacts. Similarly, to the extent that PESD case managers helped their clients obtain all the welfare benefits to which they were entitled that would facilitate the transition from welfare to work, the programs may have had no effect on welfare receipt, at least as we measure it in the short run.

B. PROGRAM IMPACTS ON EARNINGS, WELFARE, AND INCOME

The primary goal of the programs was to provide services that would enable clients to hold their jobs longer or to find new jobs quickly if they lost the first job. These individuals

Tables containing numerical values are included in Appendix A, where we present control group means and estimated impacts (which represent the difference between the program and control group means). The impact estimates are regression-adjusted using demographic and economic variables listed in Table 11.2, along with a program status dummy variable. The regression adjustment takes into account any observed preexisting differences between the program and control groups on these characteristics that might have arisen by chance. The program group mean can be obtained by adding the estimated impact to the control group mean. For example, receipt of AFDC benefits during a given period by 80 percent of control group members and an estimated impact of -8 implies that 72 percent of program group members ($80 + [-8]$) received AFDC during that period. Similarly, if the control group receives a mean AFDC benefit amount of \$2,800 and the estimated impact is \$250, then the program group mean for AFDC benefit amounts is \$3,050 ($\$2,800 + \250).

²The p-values for the impact estimates, which indicate the level of significance of the impact estimates, are included in appendix tables.

³Administrative welfare data provide accurate information on benefit receipt and amounts for each month of the follow-up period. Administrative wage records include fairly accurate information on covered earnings. However, their coverage is not comprehensive, as they exclude both self-employment and out-of-state earnings. Moreover, certain types of "underground" jobs (such as child care or domestic services) tend to be underreported. In addition, administrative wage data do not contain the rich detail of employment information usually available in survey data. The interim impact report provides findings based on survey data to estimate program impacts on a random subsample of individuals that is representative of the full sample (Rangarajan, Meckstroth, and Novak 1998).

would therefore be expected to have more earnings, eventually reduce their dependency on welfare, and make a transition to self-sufficiency.

1. Did the Programs Increase Employment and Earnings?

Our examination of the extent and patterns of employment and earnings during the two years after program enrollment shows that, in general, the programs had no effects or only very small effects on increasing employment or **earnings**.⁴ We estimate these results despite the early and frequent contacts that case managers had with clients and their attempts to address problems of both job retention and reemployment.

Employment levels among sample members varied across the sites, consistent with the target populations served. For example, in Chicago and Riverside, where all JOBS program participants who found employment were enrolled in the PESD programs, sample members were employed for about 60 percent of the two-year follow-up period (Figure III.1).⁵ In contrast, sample members in Portland and San Antonio, who were more job ready when they found jobs, maintained employment longer (between 70 and 80 percent of the time during the two-year period). These employment rates, particularly those in Portland and San Antonio, are high relative to national estimates of job retention among welfare recipients who find jobs.

As noted, the PESD programs had little impact on employment. The percentage of time that program group members were employed increased somewhat in Chicago and Riverside, and remained unchanged in Portland; in San Antonio, employment among program group members fell slightly relative to the control group (Figure III.1). Program effects on employment are statistically significant only in Chicago, and the magnitude of the impact is **small**.⁶ Relative to control group members, program group members in Chicago experienced only a three percentage point increase in the time employed during the two years (a five percent increase over the control group mean). Small positive effects on employment were observed in Riverside, and small negative effects were observed in San Antonio, although none of these effects was statistically significant.

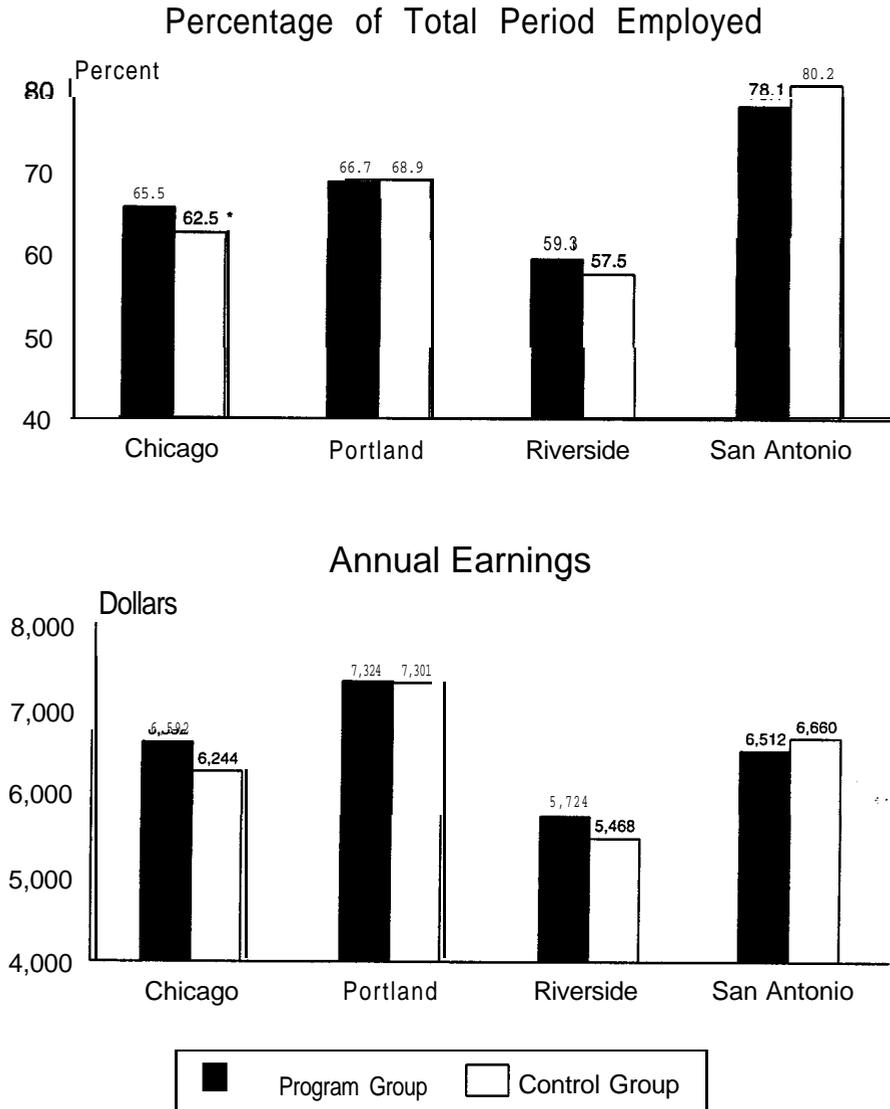
⁴Using survey data collected from a subsample of 1,200 participants across the four sites, we examined the extent to which programs helped individuals maintain their initial jobs longer. In Chicago and Riverside, small (although statistically insignificant) effects on increasing job tenure were observed; no effects were observed in the two other sites (Rangarajan, Meckstroth, and Novak 1998).

⁵Actual employment levels may be slightly higher as a result of some undercoverage of jobs in the administrative wage records data.

⁶**Technical Footnote:** Sample sizes of 1,000 per site (500 in the program group and 500 in the control group) allow us to detect employment and welfare impacts of seven percentage points, earnings impacts of \$140 per quarter, and welfare impacts of \$28 per month. In other words, if the program has effects of these magnitudes, we have an 80 percent chance of detecting these impacts. If actual impacts are smaller than these amounts, our chances of detecting them are smaller. Because we do not observe impacts of these magnitudes in any of the sites, our chances of detecting *statistically significant* impacts are very small. (Additionally, in two of the sites, sample sizes were even smaller than 500 in each group which would allow us to detect only even larger impacts.) In this chapter, we generally mention outcomes with significant impacts, as well as some cases in which the observed impacts are not statistically significant but that have patterns of impacts on these or related outcomes worth noting.

FIGURE III.1

EMPLOYMENT AND EARNINGS
DURING THE TWO-YEAR PERIOD AFTER INTAKE



SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. Earnings are in 1996 dollars. See Appendix Table A.1 for the p-values that show the level of significance of the impacts.

*Program-control group differences are significantly different from zero at the 10 percent level, two-tailed test.

**Program-control group differences are significantly different from zero at the 5 percent level, two-tailed test.

Earnings impacts were generally similar to employment impacts. In Chicago and Riverside, the program had small, positive (but statistically insignificant) effects on earnings. Program group members in these sites experienced annual earnings gains of \$348 and \$256, respectively, which translates into about a five percent increase in earnings (Figure III.1). We observed no positive effects on earnings in Portland or San Antonio.

Figures III.2 and III.3 show patterns of quarterly employment and quarterly earnings, respectively. In three sites (Chicago, Riverside, and San Antonio), employment fell during the first few quarters after job start for both program and control group members and stabilized thereafter. These reductions in employment levels during the first few quarters after job start are consistent with previous findings of high exit rates from employment during the first six months after job start among newly employed welfare recipients (Rangarajan 1996; and Rangarajan, Schochet, and Chu 1998). Employment levels for sample members in both groups stayed fairly constant in Portland. Overall, between 70 and 90 percent of the control group members in the four sites were employed during the first quarter of followup; between 55 and 80 percent were employed during the eighth quarter after followup (Figure III.2).⁷ Thus, even without any program intervention, control group members maintained fairly high levels of employment over the two-year period.

Employment rates in Chicago and Riverside--the two sites that enrolled all JOBS participants who were identified as having found jobs--experienced the largest decreases in employment levels. Fewer than 60 percent of control group members were employed in those sites approximately two years after job start (Figure III.2).⁸ In contrast, employment rates continued to remain the highest in San Antonio, where slightly more than 80 percent of control group members were employed two years after job start.

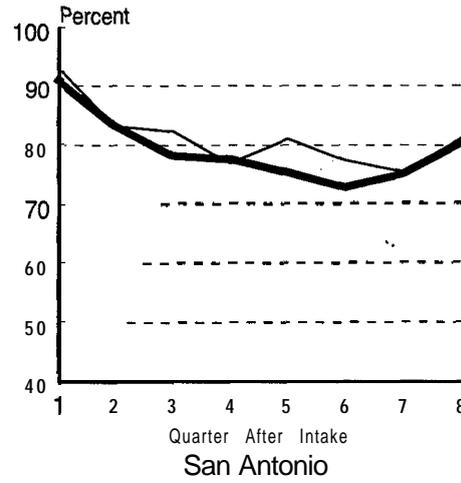
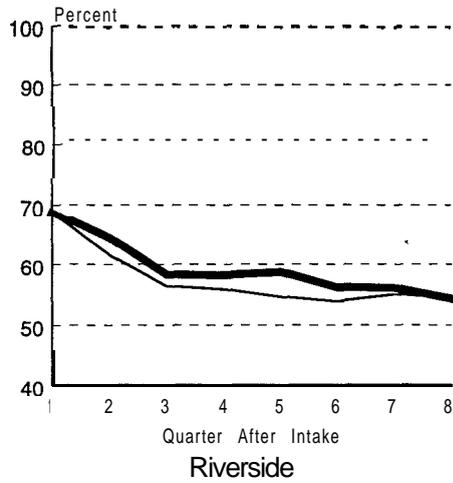
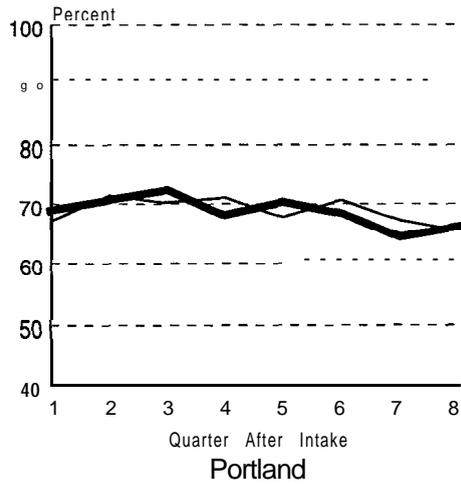
Despite general reductions in employment levels, earnings grew over the follow-up period in all four sites (Figure III.3). In three of the four sites (Portland, Riverside, and San Antonio), earnings of control group members increased more or less steadily throughout the follow-up period. In Chicago, control group members experienced reductions in earnings during the first two quarters (presumably reflecting the sharp drop in employment during the first few quarters after job start in this site); earnings then increased over the rest of the follow-up period. These increases in earnings over time partly reflect the greater likelihood that those with high wages or long hours (or both) would stay employed. In addition, it is likely that those who remained employed experienced increases in earnings either as a result of wage growth or because they worked more hours (or both). Portland and San Antonio experienced the highest earnings growth (around 30 to 35 percent), presumably

⁷The records data show less than 100 percent employment in the first quarter because some clients may have found jobs that the UI data do not cover. In addition, some clients may have been enrolled in the program because they had found jobs that subsequently failed to materialize. Finally, for those who were enrolled late in the quarter, the first quarter after intake pertains to the next calendar-year quarter. Thus, records data would show no employment or earnings for any late enrollees who lost their jobs quickly and did not find other jobs.

⁸Because the two other sites (Portland and San Antonio) enrolled individuals who had participated in their placement centers and found jobs, they had more job-ready individuals.

FIGURE III.2

PERCENTAGE EMPLOYED,
BY QUARTER AFTER INTAKE



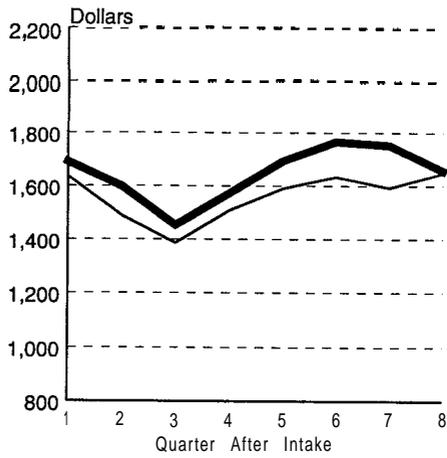
— Program Group — Control Group

SOURCE: PESD administrative records data.

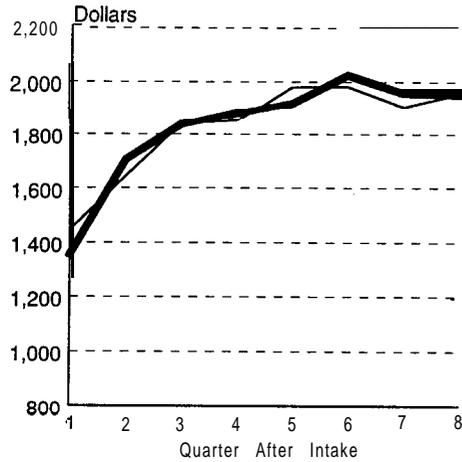
NOTE: Estimates are regression-adjusted. See Appendix Table A.2 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

FIGURE III.3

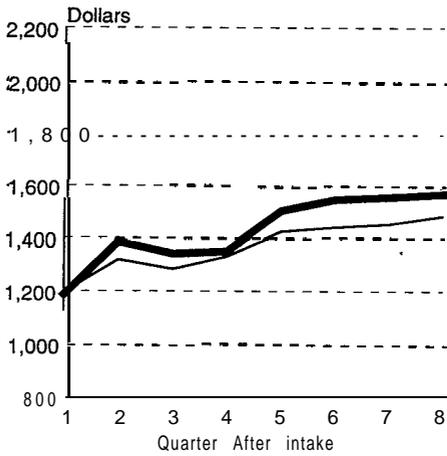
AVERAGE QUARTERLY EARNINGS,
BY QUARTER AFTER INTAKE



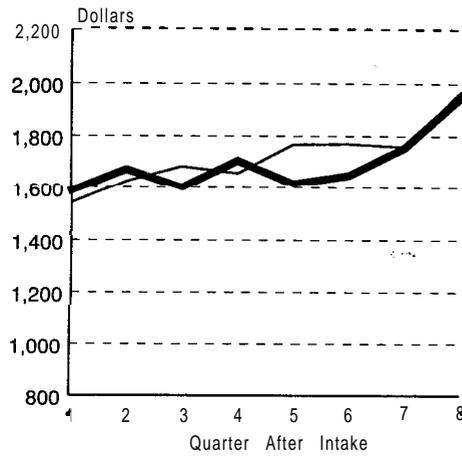
Chicago



Portland



Riverside



San Antonio

— Program Group — Control Group

SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. Earnings are in 1996 dollars. See Appendix Table A.2 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

reflecting the potential for higher earnings growth (or increased hours) in the sites' less disadvantaged and more job-ready populations, who tended to have steadier employment.⁹

Program impacts on the employment and earnings trends over the two-year follow-up period reflect the overall program effects on aggregate employment and earnings. Chicago had the most favorable patterns of employment and earnings impacts over time. In that site, the employment rate for program group members was one to five percentage points higher than for control group members in each quarter and statistically significant in three of eight quarters (Figure III.2 and Table A.2). This difference represents a one to eight percent increase in the employment rates of program group members compared with control group members.” Employment and earnings impacts in Riverside were positive in most quarters, but the magnitude of the differences was smaller than in Chicago, and none of the impacts in that site was statistically significant.

In contrast, employment impacts in Portland and San Antonio showed greater variance (Figure III.2 and Table A.2). For example, in Portland, program group members' employment increased two to three percentage points during some quarters and decreased to a similar extent during others. In San Antonio, employment impacts were negative in many quarters. In all sites, earnings impacts were similar to employment impacts (Figure III.3 and Table A.2).

2. Did the Programs Lead to Reductions in Welfare Receipt During the Two Years After Intake?

The effects of the PESD programs on welfare receipt depend on two sets of opposing factors. On the one hand, if programs improved participants' earnings, then these individuals could conceivably leave welfare. On the other hand, if PESD case managers tried to help clients obtain the benefits to which they were entitled (or took an approach that made it easier for clients to receive benefits), then the programs could actually have led to increased benefits for program group members.

We observed small reductions in AFDC and food stamp receipt (and benefit amounts) among program group members (versus control group members) in Chicago and San Antonio. In contrast, we observed either no changes (or small increases) in AFDC and food stamp receipt in Portland and Riverside. We begin this section by reviewing the context in which these changes occurred, and then turn to the discussion of the program's effects on AFDC and food stamp receipt.

⁹These earnings are also fairly high relative to national averages. For example, a study using the National Longitudinal Survey of Youth (NLSY) data found comparable earnings growth over a five-year period among a sample of employed welfare recipients who still had a job five years later (Rangarajan, Schochet, and Chu 1998). In addition, these individuals had considerably higher education levels and aptitude levels compared with welfare recipients who had found jobs but were not employed five years later, suggesting that overall earnings growth for all welfare recipients who find jobs will be much lower.

¹⁰It is interesting that in Chicago, earnings differences emerge soon after program enrollment, whereas employment effects do not emerge until the first quarter after enrollment. This apparent inconsistency may be explained by the fact that our measure of employment reflects employment at any time during the quarter, rather than the intensity of employment during that quarter.

The duration of sample members' AFDC receipt during the two-year followup varied widely across the sites (Figure III.4). However, in all sites during the 24 months after program enrollment, both the percentage receiving welfare and the average benefit amounts decreased (Figures III.5 and III.6, respectively). The differences in the levels of benefit amounts and in the decrease in welfare receipt across the sites primarily reflect state policies on AFDC benefit generosity and earnings disregards.¹¹ For example, levels of AFDC receipt remained relatively high in Chicago and Riverside. In Chicago, the two-thirds earnings disregard rules led most individuals in that site who found jobs to continue to receive welfare. In Riverside, high benefits and an indefinite one-third earnings disregard program led most of these individuals to continue to receive welfare. In these sites, welfare receipt gradually fell throughout the follow-up period, but many individuals (40 to 55 percent) continued to receive AFDC 24 months after intake.¹²

Sample members in Portland and San Antonio received welfare for about half as much time as sample members in the two other sites. Furthermore, levels of AFDC receipt in San Antonio and Portland dropped off rapidly during the first few months after job start and then remained low throughout the rest of the follow-up period. These patterns reflect the standard \$30 and one-third of earnings disregard available in the two sites for the first four months. Moreover, Texas is such a low-benefit state that an individual earning a full-time minimum wage would almost immediately be removed from the welfare program. Finally, the relatively higher levels of employment in Portland and San Antonio contributed to the lower levels of benefit receipt in these sites, where fewer than 30 percent of sample members were receiving welfare 24 months after program enrollment.

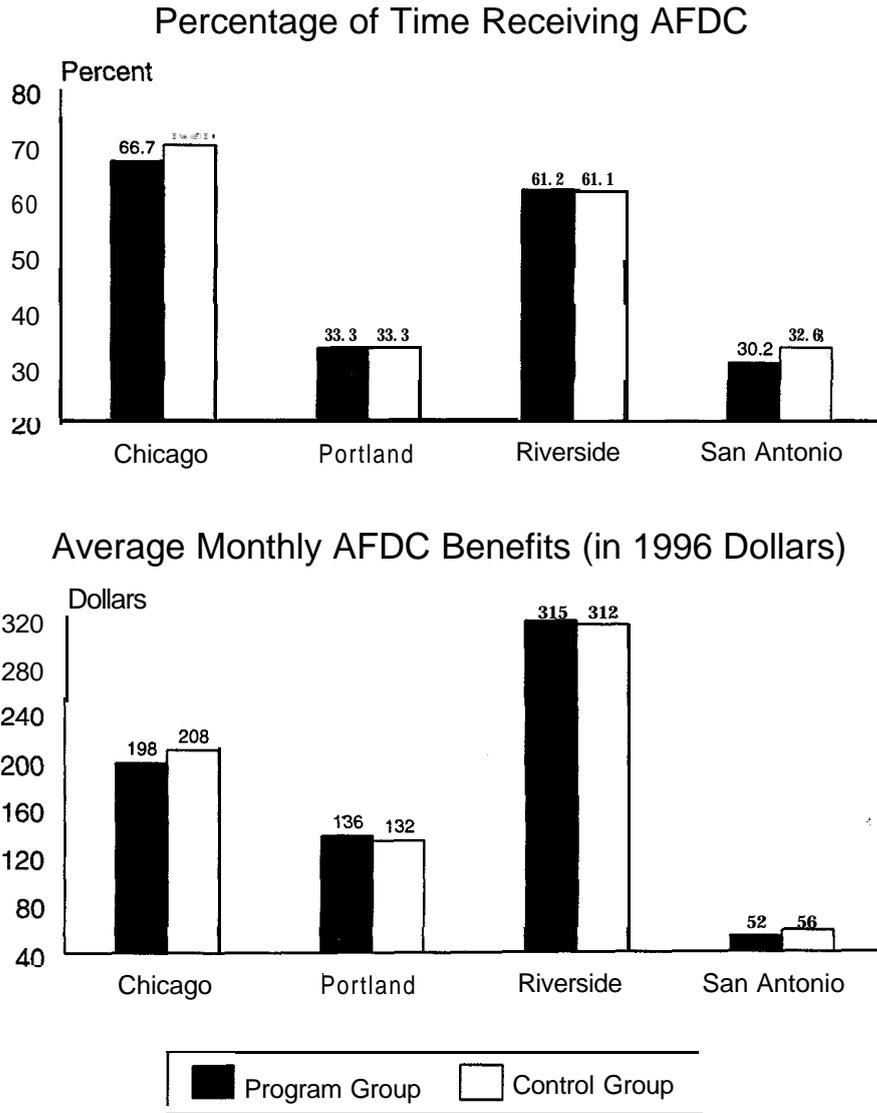
We found that the PESD programs slightly lowered welfare receipt and benefit amounts in two sites during the two-year follow-up period. We found some evidence that the PESD programs reduced AFDC and food stamp receipt in Chicago (a relatively high-benefit site) and San Antonio (a relatively low-benefit site) (Figure III.5 and III.7). In both sites, program group members had lower rates of AFDC receipt during the two years after random assignment than did control group members (by five to eight percent); the differences were statistically significant in Chicago. AFDC benefit amounts decreased by similar proportions. We also observed statistically significant reductions in the percentage of time during which program group members in San Antonio received food stamps (Appendix Table A.3). Monthly patterns of impacts in both these sites are consistent with aggregate impacts on AFDC and food stamps. For example, they show that program group members in both sites

"AFDC benefits are not at the 100 percent level in the first month after enrollment because some individuals, especially those with high earnings, may have exited welfare on job start or between the time of job start and program enrollment. This effect was most noticeable in San Antonio, where the combination of low welfare benefits, less generous earnings disregards, and longer lags between job start and time of program enrollment led to only slightly more than half the sample members continuing to receive AFDC during the first month after program enrollment.

¹²It is important to keep in mind that these demonstration programs operated in a pre-TANF era, which had no lifetime limits on welfare receipt. Under the TANF rules, employed welfare recipients may have more incentive to leave TANF if their cash grants are small, so that they do not reach their time limits.

FIGURE III.4

AFDC BENEFITS DURING THE TWO-YEAR FOLLOW-UP PERIOD



SOURCE: PESD administrative records data.

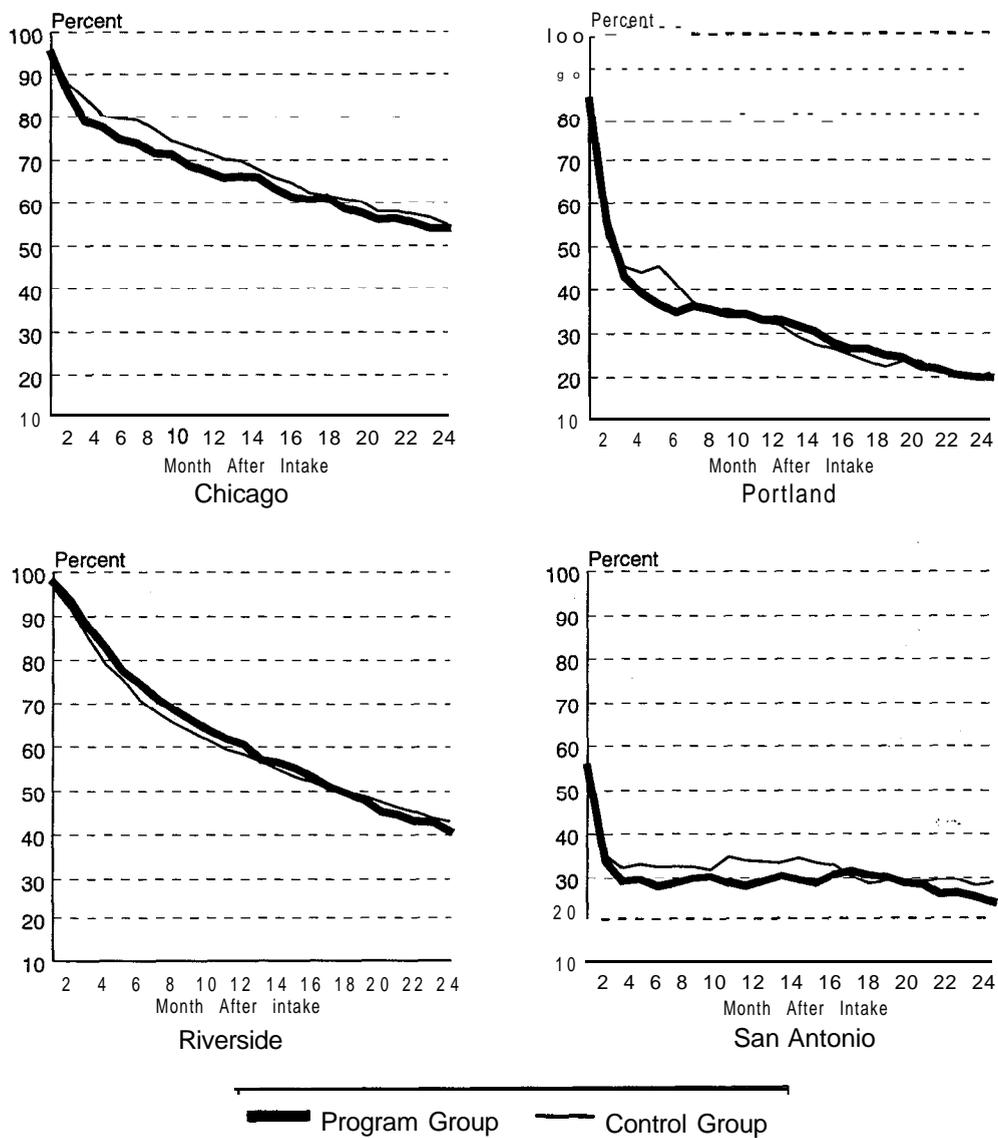
NOTE: Estimates are regression-adjusted. See Appendix Table A.3 for the p-values that show the level of significance of the impacts.

*Program-control group differences are significantly different from zero at the 10 percent level, two-tailed test.

**Program-control group differences are significantly different from zero at the 5 percent level, two-tailed test.

FIGURE III.5

PERCENTAGE RECEIVING AFDC,
BY MONTH AFTER INTAKE



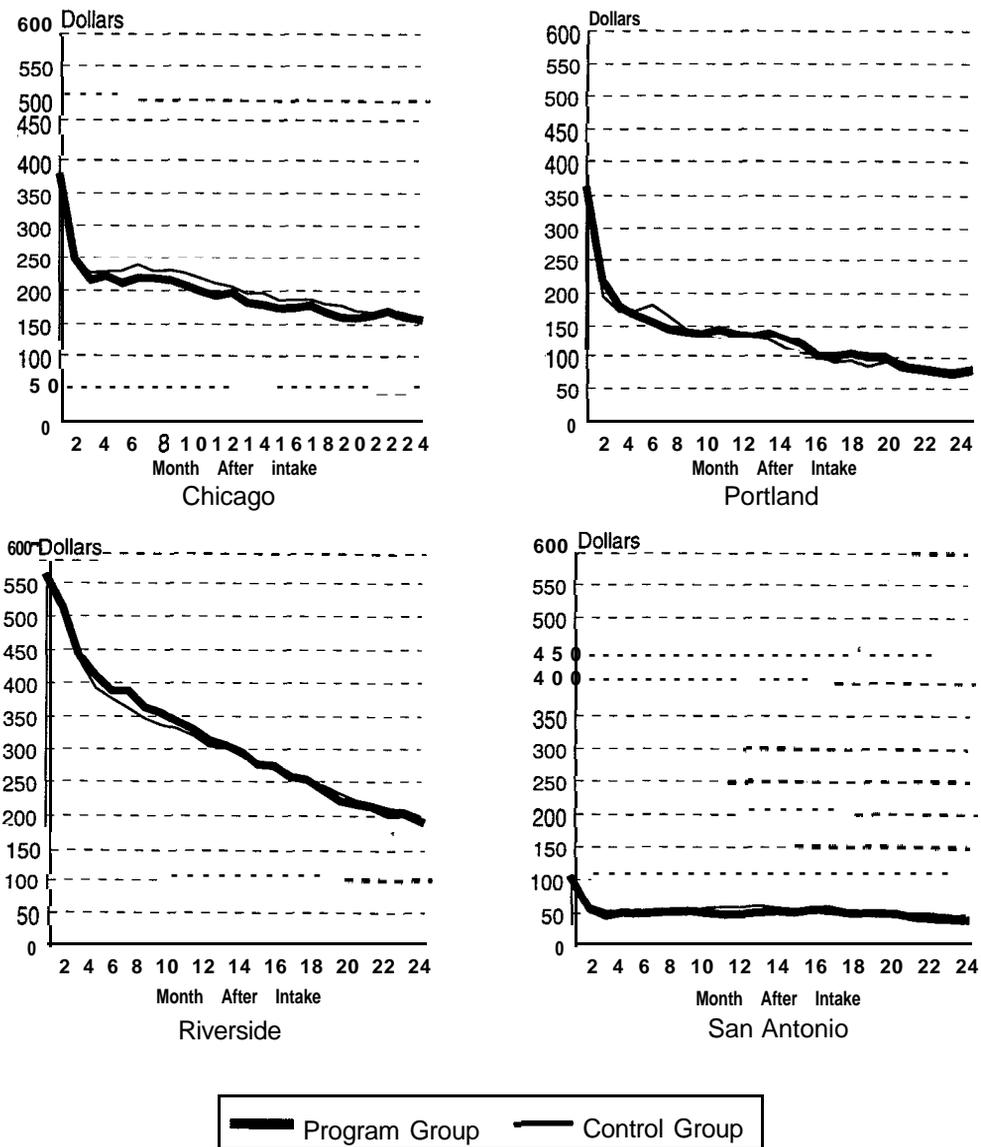
SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. See Appendix Table A.4 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

Site-by-site variation in the proportion of sample members receiving AFDC primarily reflects differences in state policies and program contexts related to AFDC benefits and earnings disregards.

FIGURE III.6

AVERAGE MONTHLY AFDC BENEFIT,
BY MONTH AFTER INTAKE



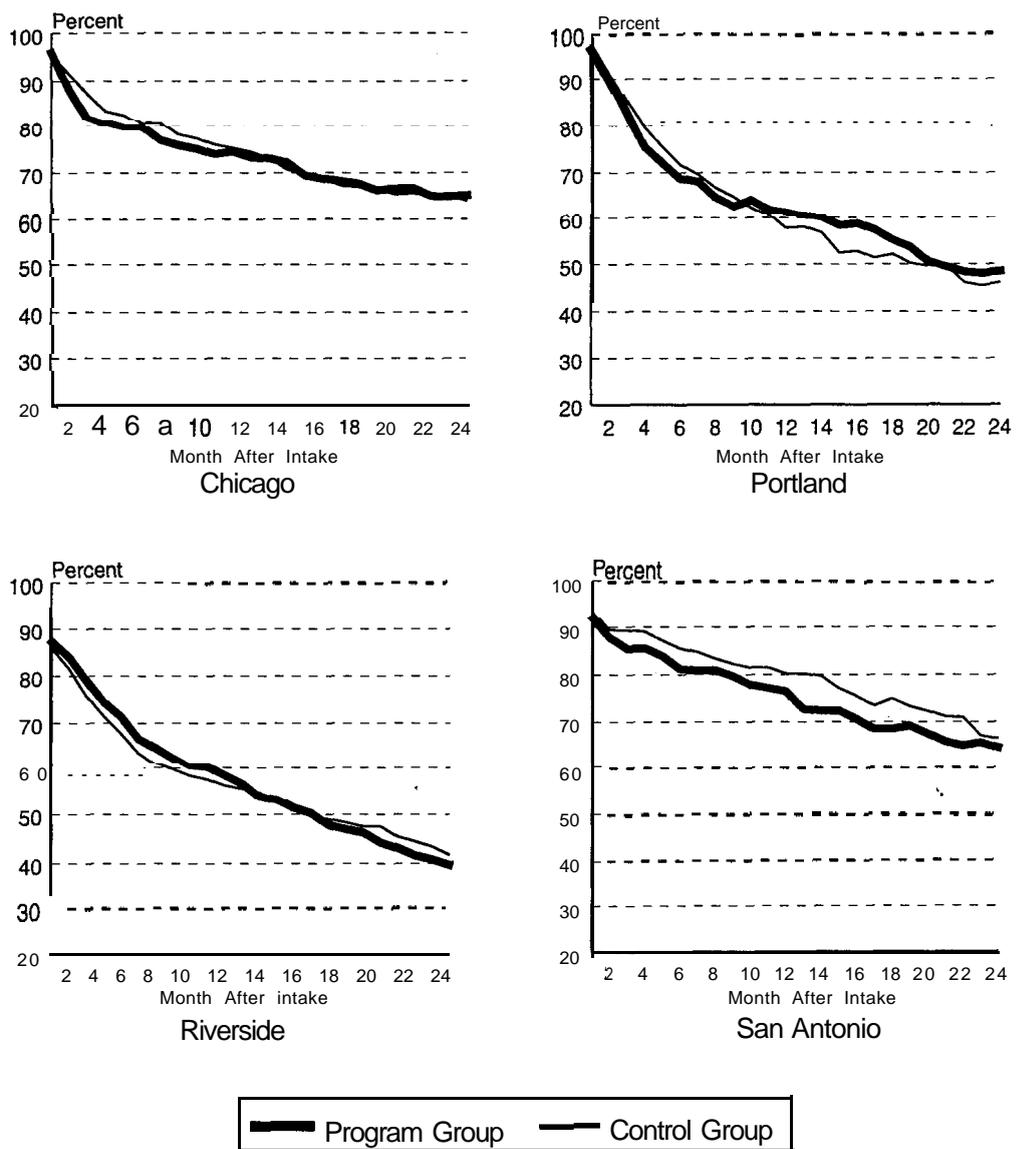
SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. Benefit amounts are in 1996 dollars. See Appendix Table A.4 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

Site-by-site variation in the level of AFDC benefit amounts for sample members primarily reflects state policies and program contexts related to AFDC benefits and earnings disregards.

FIGURE III.7

PERCENTAGE RECEIVING FOOD STAMPS,
BY MONTH AFTER INTAKE



SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. See Appendix Table A.5 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

consistently experienced roughly a three to five percent reduction in AFDC and food stamp benefits during most of the months after intake (Figures III.6 and III.8, respectively).¹³

AFDC and food stamp receipt did not change in Portland or Riverside. In Portland, both AFDC and food stamp receipt among program group members initially fell relative to control group members; however, within one year after intake, the patterns reversed. In Riverside, both AFDC and food stamp receipt among program group members increased during the first 18 months after intake relative to the control group; thereafter, we observed reductions in AFDC and food stamp receipt among those in the program group compared with those in the control group. In general, the magnitude of these changes is fairly small. Patterns of AFDC and food stamp benefit amounts mirrored patterns of benefit receipt.

3. Did the Programs Have Effects on Income and Self-Sufficiency?

Consistent with the small effects on earnings and welfare receipt, the programs had almost no effects on income and self-sufficiency. We observed movement toward self-sufficiency only in Chicago; this movement was driven by increased earnings and lower AFDC benefit amounts.

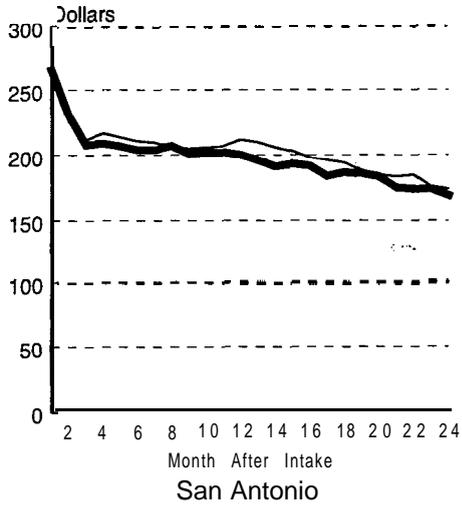
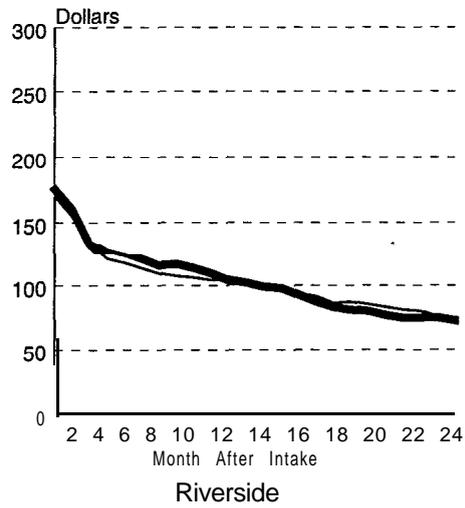
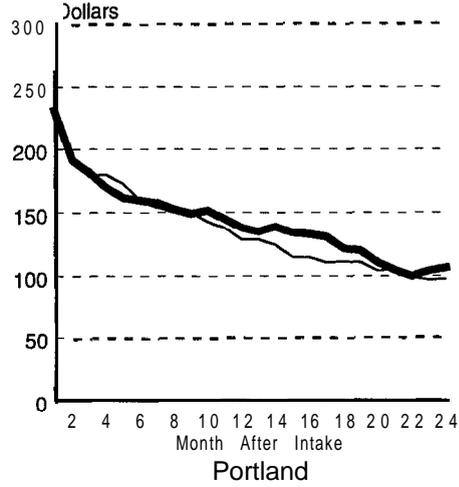
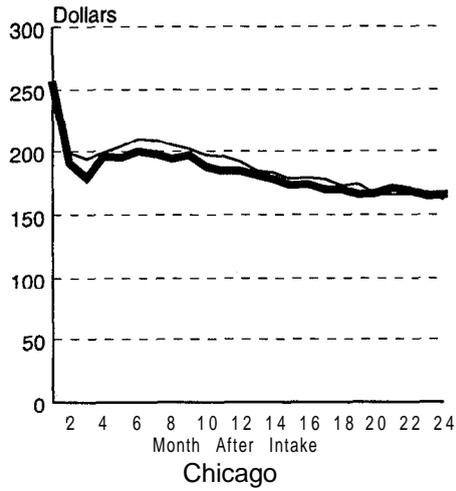
To understand whether the programs supported movement toward self-sufficiency and out of poverty, we examined the components of total income over the two-year follow-up period. Because we used administrative data and had access only to earnings and welfare receipt, our measure of income includes only earnings, AFDC benefits, and food stamp benefits. Data from surveys conducted with a subset of sample members suggest that sample members received an average of seven percent more in income from other sources, including Supplemental Security Income, Unemployment Insurance, help from family and friends, and child support.

Annual income across the sites ranged from around \$10,000 to \$11,000 (in 1996 dollars), or between 75 and 85 percent of the poverty limit (Figure III.9 and Appendix Table A.6). In all sites, earnings were the largest contributor of the three sources to total income, ranging from 45 to 60 percent. In Portland and San Antonio, which had either less generous welfare benefits or less generous earnings disregards policies (and whose sample members maintained higher levels of employment), earnings contributed about 60 percent of the total income of control group members. In comparison, control group members in Chicago and Riverside received about 45 percent of their income from earnings. In Portland, Chicago, and Riverside, the other 55 percent of income was divided roughly evenly between AFDC and food stamps. Because Texas is such a low AFDC benefit state, only about 10 percent of total income was obtained from AFDC, and more than 30 percent was from food stamps.

¹³It is interesting that we observe reductions in AFDC and food stamp benefits among program group members in San Antonio, but no parallel increases in wage records data earnings. It is possible that program group members were more likely to have unreported jobs or exit to other status (such as marital status), but we do not have the data to determine the causes of this apparent inconsistency. However, survey data collected in a subsample of welfare recipients in San Antonio approximately one year after program enrollment does show that program group members reported more earnings than did control group members (Rangarajan, Meckstroth, and Novak 1998).

FIGURE III.8

AVERAGE MONTHLY FOOD STAMP BENEFIT,
BY MONTH AFTER INTAKE



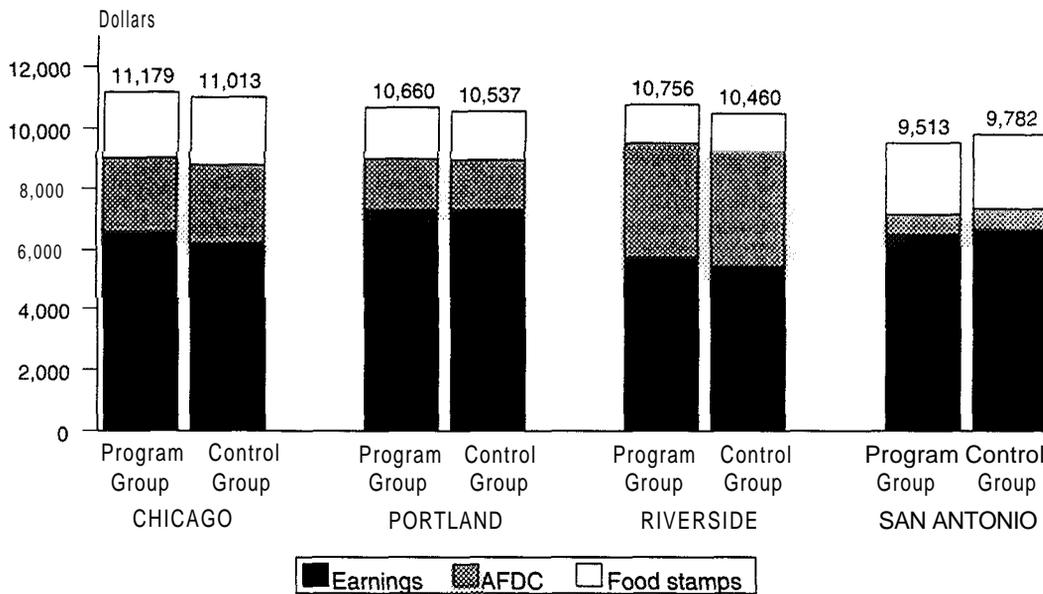
— Program Group — Control Group

SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. Food stamp amounts are in 1996 dollars. See Appendix Table A.5 for monthly impact estimates and the associated p-values that show the level of significance of the impacts.

FIGURE III.9

AVERAGE ANNUAL INCOME FROM EARNINGS, AFDC, AND FOOD STAMPS DURING THE TWO-YEAR PERIOD AFTER ENROLLMENT



SOURCE: PESD administrative records data.

NOTE: Estimates are regression-adjusted. See Appendix Table A.6 for impact estimates and the associated p-values that show the level of significance of the impact.

In three sites, the average annual earnings of program group members increased only slightly relative to those of control group members. Program group members showed movement toward self-sufficiency only in Chicago, as the proportion of their income from earnings increased significantly, and the proportion from AFDC and food stamps decreased (the AFDC decrease was statistically significant). In Portland and Riverside, small increases in earnings and increases in AFDC and food stamps contributed to higher total income. In San Antonio, program group members experienced lower annual incomes driven by reductions in earnings, AFDC, and food stamps.

C . SUBGROUP IMPACTS

Although the programs had little overall impact on earnings improvement or welfare receipt reductions, program services may have been more effective for some subgroups of the population than for others. We conducted a subgroup analysis that may help in understanding the patterns of program impacts and may help programs planning to promote job retention by targeting services to those most likely to benefit. In the analysis, we examined two sets of issues. First, we investigated whether the outcomes differed for sample members in different subgroups. Second, we assessed whether the program was more effective for certain subgroups than for others. The first issue assesses only whether different sample member characteristics are associated with different types of outcomes (for example, whether those who have high school diplomas have higher levels of employment than those who do not have diplomas). The second issue assesses whether program impacts differ for certain subgroups of the population (for example, whether program impacts are smaller or larger for those with high school diplomas than for those without diplomas).

We focused our analysis on seven sets of subgroups. Of these, four relate to sample member characteristics that may potentially be used for targeting purposes (age, age of youngest child, education, and previous employment), two relate to characteristics that reflect cultural background factors that can affect the responsiveness of the intervention (race/ethnicity and welfare history), and one relates to characteristics of the intervention (program enrollment period).

In general, we did not find strong evidence of a relationship between these sample member characteristics and key outcomes. Differences in education level were most strongly related to employment and welfare. For example, sample members who had continued their schooling after high school or after receiving their GEDs had higher levels of employment and earnings, and were less likely to receive welfare or food stamps than were those with less education (Appendix Tables A.7 through A.9).¹⁴ In three sites, sample members whose youngest child was 13 years of age or older were less likely to receive welfare during the follow-up period than were those whose children were younger (Appendix Table A.8).

Despite finding scattered program impacts, we did not observe strong or distinct patterns of subgroup impacts showing that the program was effective for some groups of the population. Only in Chicago did we find some evidence that the PESD program had slightly larger effects on those who were the most disadvantaged. For example, the program had significantly larger effects on increasing employment and earnings and on reducing welfare for those with no recent work experience than for those with strong recent work histories.¹⁵ We also found some evidence that the PESD program in Chicago was more effective in increasing employment and reducing welfare reliance for Hispanic and for white, non-Hispanic sample members.

¹⁴This relationship can be observed in the columns that represent control group means and the corresponding characteristics. For example, in the first column in Appendix Table A.7, we can see that control group members in Chicago with less than a high school diploma or GED were employed 61 percent of the time, compared with 67 percent of the time for those with more than a high school diploma or GED.

¹⁵Similarly, program impacts in Chicago on increasing employment and earnings and on reducing welfare were larger for those with younger children relative to those with older children, and for those with lower education levels relative to those with higher education levels (although these effects are not statistically significant).

IV

INTERPRETATIONS AND CONCLUSIONS

The analysis of the effectiveness of the PESD programs shows that, at best, one site was modestly successful in promoting employment and reducing welfare receipt, one site had small effects on promoting employment only, and one had small effects on reducing welfare and food stamp receipt. One site had no effect on either earnings or welfare.

What do these modest effects suggest? Why are there differences in program effects across the sites? Can the findings on the effectiveness of the PESD programs and an examination of program features and program implementation guide current and future efforts to promote job retention?

A. INTERPRETING PROGRAM IMPACTS

Four factors affected program impacts: (1) the experimental and evolving nature of the PESD programs and the extent to which the planned types of services could be provided, (2) the extent to which programs targeted individuals with different types of needs for services, (3) the levels of key outcomes in the absence of program services, and (4) the services already available to control group members.

The first two factors relate to program implementation and design factors. For example, if programs are evolving over time and trying to determine how to best deliver services, or to the extent that planned services cannot be delivered, program impacts are likely to be small. A related item is how well services delivered meet the needs of the client population--if services delivered most directly meet the needs of only a small fraction of clients, again program impacts are likely to be small. The last two factors are contextual ones. For example, if control group members can maintain high levels of employment with the absence of any services, it may be difficult to increase employment levels among program group members by a large amount, or the resources it would take to do this may be much larger. Finally, if services similar to those offered to program group members are available to control group members, program impacts are likely to be small.

1. *The four PESD programs were fairly experimental and evolved over time.*

PESD was the first large-scale program of job retention services set in the context of state welfare programs. None of the programs could build on or benefit from a previously developed job retention service delivery model. Consequently, all four PESD programs evolved throughout the demonstration period, as program staff worked toward full implementation. Gradually, case managers had to learn how to select appropriate services, how to deliver these services, and what service delivery period might be best. In some cases, they had to learn how and to what

extent they would integrate PESD service delivery with the JOBS program and would connect it to the welfare system.

In all sites, because the PESD programs were new and unfamiliar to clients, PESD case managers had to initiate contact with all clients assigned to the programs.¹ Contacting and informing clients about the newly available PESD services was challenging and time-consuming. In addition, many clients were suspicious of PESD case managers who they did not already know and who were offering them new services, and some clients did not want anything to do with these staff. PESD case managers often had to make numerous telephone calls to convince suspicious clients that they were genuinely interested in providing job retention services.

During the planning stage, the programs had developed schedules to provide regular, intensive case management contacts and services soon after clients enrolled, with substantial decreases in contacts to occur over time. The intention was to give case managers a manageable average caseload at any given point. However, many clients lost their jobs fairly quickly and therefore required services for a longer period than had been expected. Case managers had to work actively with these clients on an ongoing basis to help them find and keep new jobs, and to resolve crises or difficulties that arose during the first few months after job start. As caseloads increased, case managers found it difficult to reach all clients and to provide them with the services they needed.

Although case managers in each site implemented the program guidelines differently, all tried to maintain regular contact with most clients, regardless of the level of need. In some instances, case managers spent substantial time with a few clients who had severe needs or attempted to maintain contact with clients who had indicated that they did not want services. Over time, these practices imposed constraints on case managers' time and may have made it difficult to provide services to many clients who needed assistance.

Although case managers were given wide latitude with respect to service delivery, they received little guidance on how to serve clients with different types and levels of need, including those with few or no needs and those with multiple needs. The program guidelines did not explicitly define the role of case managers, the particular services they were to provide, and the service delivery methods. For example, the guidelines contained no clear rules on when case managers should serve clients directly and when they should provide referrals to other agency staff. In addition, the broad guidelines did not specify the types of links case managers were to form with other service providers or the amount of followup to be provided in referral cases. Similarly, the guidelines did not define the types of links to be formed with employers or how a case manager should intervene with an employer on a client's behalf.

¹PESD was not a volunteer program where those clients who wanted job retention services enrolled. In this demonstration, welfare recipients who found jobs (and had participated in the JOBS program) were identified and assigned to the program (or control) group.

Program managers discovered early that some planned services could not be delivered even though case managers tried to provide them; at the same time, case managers were reluctant to push clients to use other services. For example, program staff had hoped that case managers could resolve workplace conflicts through direct discussion with employers. Many clients indeed reported having workplace conflicts--more than 40 percent reported at least one work-related problem that made it difficult for them to retain their jobs (not shown). However, most did not want their case managers to intervene directly, as employers would become aware of their previous welfare connection and might perceive the clients as dependent on others for mediation. Consequently, this aspect of service delivery--direct intervention with employers--never developed as planned.

Similarly, program guidelines specified that case managers promote the use of EITC, and in particular the advanced payment option of the EITC, a feature that could have enabled some clients to take home more pay each month. Although PESD staff gave clients the necessary information, less than half of overall sample members received the EITC. More program group members than control group members (49 percent versus 42 percent) did receive the EITC. However, case managers did not do much to encourage the use of the advanced payment option.² Overall, less than one in five of the sample members took advantage of the advanced payment option of the EITC.

In contrast, case managers spent substantial time resolving unanticipated issues. Resolving benefit eligibility and payment errors for clients was one of these services, and it was time-consuming, as case managers helped correct income maintenance errors, helped clients become eligible for transitional child care, and resolved child care payment errors. Early in the programs, case managers had to devote time to learning how to work with other agency staff to resolve these issues. To the extent that services such as job search assistance or direct intervention with employers to prevent job loss have more immediate effects on employment, assistance with benefits and payments may have helped to ease the transition from welfare to work, rather than directly improve employment outcomes.

2. Service needs of clients vary, but the PESD programs did not target clients with different needs for different types or levels of services.

The demonstration guidelines specified that job retention services focus on case management and that all members of the target population assigned to these programs be provided case management services, regardless of their AFDC or JOBS program status. Because of these broad case management mandates, PESD case managers had to contact and serve *all* clients assigned to them. However, it is not clear that all clients who find jobs need or want the more intensive type of case management services or that these services would help improve employment outcomes in every case. For example, many clients who were targeted for and

²Case managers often reported that some clients wished to receive a lump-sum payment at tax time, rather than small payments with each paycheck (a finding corroborated in the GAPS program).

enrolled in the PESD demonstration (especially in Portland and San Antonio) were better off and more job ready than the average welfare recipient. As the sustained employment of control group members in these sites indicates, many of these individuals were able to keep their jobs while receiving little additional assistance; therefore, providing intensive case management services to individuals such as these may have less value. Although many clients valued having someone to talk to and found that the case managers helped to boost their morale, this aspect of case management by itself may not have helped employment retention. Moreover, clients who appreciated this service may not have been the ones who needed additional assistance.

In contrast, it is likely that individuals with multiple or severe barriers have a more difficult time holding on to their jobs. By themselves, the counseling and morale-boosting services the PESD case managers provided may not have been sufficient to help these clients through the welfare-to-work transition. They may benefit from an even more intensive service delivery approach that involves staff from other agencies (for example, those providing substance abuse or mental health services). They may also benefit from other types of increased work supports (for example, intensive job coaching, employer mediation, or even wage subsidies).

Failing to distinguish among types of clients and providing everyone with general counseling may have prevented case managers from concentrating services on the neediest. We observe some evidence pointing to the importance of targeting. For instance, we did not observe any positive employment impacts in the sites that targeted only the more job-ready clients, and the small positive impacts we did observe were in the sites that targeted all clients (including more and less job-ready clients). Furthermore, in Chicago--the only site with significant effects--the most disadvantaged group experienced the largest impacts. These findings underscore the importance of targeting clients appropriately for services.

3. Many control group members were able to maintain high levels of employment, partly due to strong economic conditions and partly because the programs enrolled less disadvantaged individuals into the demonstration. Obtaining program impacts under such conditions can be difficult.

The levels of outcomes that individuals would experience in the absence of programs (as reflected by control group outcomes) can affect the extent to which an intervention can have impacts. The PESD programs were operating before the passage of the PRWORA, and many welfare recipients who found jobs did so more or less voluntarily; to some extent, this group may include some welfare recipients who are able to maintain more stable employment. In addition, this was a time when the economy was very strong, and it was easy for individuals to quickly find other jobs if they lost their first ones. Finally, two of the programs selected individuals who had higher education levels and were more job ready at the outset; this also contributed to high employment levels among all sample members.

If employment levels among those who find jobs are likely to be fairly low in the absence of a program, then providing the right kinds of services to program

group members is likely to cause employment to increase. However, if all those who find jobs maintain high levels of employment independently of any program, then program services are likely to have only small impacts, at best. In two sites, Portland and San Antonio, employment levels remained relatively high, and between 70 and 80 percent of the clients in these sites were still employed two years after job start. Improving outcomes for such individuals is likely to be difficult, and programs may have to provide more intensive or different types of interventions if outcomes are to improve significantly. These findings also point to the importance of targeting for program services individuals who are more likely to need assistance.

4. The program context and services available to control group members influenced the magnitude of estimated program effects.

Impacts are likely to be the largest when a program provides useful services and when those in the treatment group use these services while those in the control group have access to few services. To the extent that control group members receive services similar to those the program group receives or receive alternative types of equally useful services, program impacts are likely to be diluted. In Chicago, where we observed small increases in earnings and small decreases in welfare receipt and benefits, relatively limited case management services were available to control group members through the JOBS program. In two sites, Portland and Riverside, control group members had access to services similar to those available to program group members, which may largely account for the absence of impacts in these sites.³

We suspect that the higher welfare receipt among PESD program group members in Riverside may be a result of the Riverside GAIN program--California's highly effective JOBS program: The GAIN intervention in Riverside County is nationally recognized as a program that strongly encourages individuals to find jobs and leave welfare. Thus, both the PESD and GAIN case managers would similarly direct clients to focus on obtaining employment. Furthermore, it is possible that the pressure exerted by GAIN case managers, who had a highly defined work orientation, could have led some PESD control group members to leave welfare, even without having found jobs.⁴ Moreover, the philosophies of the two programs could have differed somewhat, with GAIN case managers focusing on work to reduce welfare dependency and PESD case managers helping clients with jobs to remain employed and to obtain all the benefits that would facilitate their transition from welfare to work.

³In some sense, failure to find expected program impacts in sites in which control group members had access to some services may actually reinforce the value of providing job search and other services to employed welfare recipients.

⁴It is possible that individuals who had reacted negatively to the GAIN case managers' efforts to encourage program participation or to become involved in other job-seeking activities were more likely to have left welfare, whereas similar individuals, who might otherwise have left welfare, had responded to the PESD case managers' lower-pressure approach by continuing to receive benefits.

The findings from our process analysis suggest that control group members in Portland were somewhat more likely to avail themselves of the postemployment services available under the regular JOBS program because they had had previous contact with the job placement case managers.⁵ Furthermore, all sample members in that site (program and control group members) had access to the resource room in the JOBS program placement office, where they could look for job postings and use a computer to update their resumes.

Other features peculiar to the Portland PESD program may explain the absence of impacts in that site. First, PESD case managers in Portland shared responsibilities with the JOBS program case managers, rather than fully assuming that position. It is therefore possible that PESD clients who did not want to be contacted by staff from either program could “slip through the cracks” as a result of the shared responsibility. Second, differences in how program and control group case files were processed and transmitted may have delayed service delivery to some clients. In Portland, all welfare recipients’ case files were sent from the placement centers back to the branch offices three months after a client had exited welfare. PESD case managers were to receive the case files of any client who subsequently returned to welfare. Sometimes (especially early in the demonstration, when no process had yet been established), the file transfer was delayed substantially.⁶ In contrast, control group members who returned to welfare were sent to a two-week job search program and then, if they did not find a job within that period, back to the placement center. As a result, some control group members may have found new jobs or received job search services quickly after job loss.

B. CONCLUSION

The difficulties that welfare recipients have holding jobs underscore the importance of providing job retention services to this group. The PESD programs were a first attempt to provide postemployment services, and many more programs (and studies of those programs) will be needed before we can say much about effective approaches to promoting job retention.⁷ Although the overall findings from the PESD are disappointing, new programs can build on the experiences of PESD service delivery, rather than simply provide interventions similar to those of the demonstration, and may have more success in increasing employment.

⁵See Haimson, Hershey, and Rangarajan (1995) for a detailed description of program implementation in the four sites, as well as of the types of services available to program group and control group members in each site.

⁶Eventually, case files of PESD program group members were retained in the placement centers so that PESD case managers could easily access them.

⁷Mathematica Policy Research, Inc. is currently evaluating the GAPS initiative, a program that also provides case-management-based job retention services to newly employed welfare recipients in Allegheny County in Pennsylvania (Wood and Paulsell 1999).

Our study of the PESD programs and of their client populations has enabled us to identify several key recommendations that can serve as a framework for programs considering providing job retention services:

- ***Programs should attempt to target clients for ongoing and intensive case management support.*** Some clients are able to sustain employment independently and will need only little assistance or short-term assistance (such as child care) to meet specific needs. Other clients who face serious or multiple barriers may have a more difficult time holding on to their jobs and will need ongoing assistance. Programs that plan to provide job retention services should consider the needs and resources of welfare recipients who ‘find jobs. For example, the PESD programs operated in the context of a strong economy and at a time when welfare recipients were finding jobs more or less voluntarily. Two of the four PESD programs also may have selected relatively job-ready individuals. Consequently, between 60 and 80 percent of enrollees who found jobs were able to sustain employment during the two years after job start. It is likely that such individuals would need little assistance or short-term assistance (such as accessing child care and Medicaid assistance), as well as access to resource rooms where they can update their resumes and look for job leads if they want to find other jobs. In contrast, those who are relatively less job ready may quickly lose their jobs or cycle in and out of welfare and are likely to need more sustained assistance.

Over time, implementation of the 1996 welfare law’s strong work requirements is likely to force many clients who are not fully job ready to enter the labor market. Time limits may motivate some of these individuals to retain their jobs, but many may need support services if they are to stay employed. Identifying who is likely to need little assistance and who is likely to need more ongoing assistance is likely to be a fairly challenging task. Targeting strategies are currently being developed that suggest that it may be possible to use a set of individual and job characteristics (such as education level, health status, starting wages, and availability of fringe benefits) to identify who is likely to have stable employment outcomes and who is likely to have poor employment outcomes (Rangarajan, Schochet, and Chu 1998). In addition, more assessment and targeting strategies need to be developed and tested for effectiveness to find the best targeting mechanisms.

- ***Simplify service delivery mechanisms.*** Altering administrative procedures so that clients can more easily access services and integrating functions across agencies to eliminate duplication and delays can free up some case management resources, so that case managers can focus more on service coordination issues and meet clients’ needs efficiently. For example, many states have large paperwork requirements for child care funding that make it complicated for some individuals to access child care subsidies. In such cases, simplifying access to child care resources or subsidies may be desirable. States may also want to provide immediate job search assistance to clients who have lost jobs, instead of waiting for individuals to return to welfare so that they can qualify for job search services. These types of system changes can reduce the

administrative steps that case managers and job retention specialists must take to provide certain services, giving them more time to concentrate on providing other services and meeting other client needs.

- ***Form closer links with employers, so that case managers or other staff can help resolve at least some work-related issues.*** Many PESD clients reported some work-related problem that made it difficult for them to retain their jobs, suggesting that some kind of employer mediation for some welfare recipients may be useful. However, most PESD clients did not want their case managers to intervene with employers on their behalf. Given the potential value of some kind of employer mediation for welfare recipients who find jobs, programs will have to determine how best to establish this outreach. Programs that are heavily employment oriented and conduct many placement activities themselves may be able to establish the link through their placement officers. Furthermore, as welfare agencies more closely resemble employment agencies, and case managers increasingly perform job placement activities, it may be easier for them to take on the role of mediating with employers. Finally, programs might consider establishing or identifying employee assistance programs to fulfill this function.
- ***Programs considering adding job retention assistance to their current set of services should assess carefully what services their programs currently offer and make changes to fill current gaps in the system.*** Programs that provide services that are already available but group them under the rubric of “job retention services,” or provide new services that are only marginally different are not likely to find that such services will yield large impacts. In Portland and Riverside, for example, the new PESD services were to some extent similar to those already available to control group members; these programs had either small or no incremental effects on employment. Programs considering providing job retention services should carefully assess the extent to which their current systems can meet their job retention and job advancement objectives. They should gather data from current and former employed welfare recipients, as well as from other sources (such as case managers and other service providers), to identify the needs of newly employed welfare recipients in their areas. Based on a careful assessment, programs can make changes to their current systems that may help meet their job retention and advancement goals. As the new welfare law takes effect, increasing numbers of individuals with multiple or severe barriers will enter the labor market. They will need a wide range of supports, such as substance abuse and mental health services, basic skills training, or, possibly, wage subsidies. Job retention programs must identify current gaps in their provision of these types of services and directly (or through effective links with other agencies) offer a comprehensive set of supports to their clients.

REFERENCES

- Blank, Rebecca M. "Analyzing the Length of Welfare Spells." *Journal of Public Economics*, vol. 39, no.3, August 1989, pp. 245-273.
- Brandon, Peter. "What Happens to Single Mothers After AFDC?" *Focus*, vol. 17, no. 2, fall/winter 1995.
- Gleason, Philip, Anu Rangarajan, and Peter Schochet. "The Dynamics of AFDC Receipt Among Teenage Parents in Inner Cities." *Journal of Human Resources*, forthcoming.
- Gritz, R. Mark, and Thomas MaCurdy. "Patterns of Welfare Utilization and Multiple Program Participation Among Young Women." Washington, DC: U.S. Department of Health and Human Services, June 1991.
- Haimson, Joshua, and Alan Hershey. "Off Welfare and Into Work: A Report Series of the Postemployment Services Demonstration: Getting Help to Stay Employed: The Use of Postemployment Services." Princeton, NJ: Mathematica Policy Research, Inc., April 1997.
- Haimson, Joshua, Alan Hershey, and Anu Rangarajan. "Off Welfare and Into Work: A Report Series of the Postemployment Services Demonstration: Providing Services to Promote Job Retention." Princeton, NJ: Mathematica Policy Research, Inc., December 1995.
- Harris, Kathleen Mullan. "Teenage Mothers and Welfare Dependency: Working Off Welfare." *Journal of Family Issues*, vol. 12, no. 4, 1991, pp. 519-536.
- Olson, L., L. Berg, and A. Conrad. "High Job Turnover Among the Urban Poor: The Project Match Experience." Evanston, IL: Center for Urban Affairs and Policy Research, Northwestern University, 1990.
- Pavetti, Ladonna A. "The Dynamics of Welfare and Work: Exploring the Process by Which Young Women Work Their Way Off Welfare." Cambridge, MA: Harvard University, October 29, 1992.
- Rangarajan, Anu. "The Transition from Welfare to Work: An In-Depth Look at Employment Patterns and Barriers to Job Retention." Preliminary draft. Paper presented at RAND Conference, September 20, 1996.
- Rangarajan, Anu, Peter Schochet, and Dexter Chu. "Employment Experiences of Welfare Recipients Who Find Jobs: Is Targeting Possible?" Princeton, NJ: Mathematica Policy Research, Inc., August 20, 1998.

Wood, Robert G., and Diane Paulsell. "Helping TANF Recipients Stay Employed: Early Evidence from the GAPS Initiative." Princeton, NJ: Mathematica Policy Research, Inc., April 7, 1999.

APPENDIX A

SUPPLEMENTAL TABLES

TABLE A.1

EMPLOYMENT AND EARNINGS DURING THE TWO-YEAR FOLLOW-UP PERIOD

	Chicago			Portland			Riverside			San Antonio		
	Control Group	Estimated Mean Impact ^a	p-Value	Control Group	Estimated Mean Impact	p-Value	Control Group	Estimated Mean Impact	p-Value	Control Group	Estimated Mean Impact	p-Value
Percentage of Time Employed												
Two-Year Period	62.5	3.0	0.09*	68.9	-0.2	0.92	57.5	1.8	0.35	80.2	-2.1	0.26
Year 1	66.4	2.2	0.23	70.0	0.0	0.99	60.6	1.8	0.38	83.1	-1.0	0.61
Year 2	58.5	3.9	0.07*	67.8	-0.4	0.87	54.5	1.8	0.43	80.0	-3.5	0.15
Average Number of Quarters Employed												
Two-Year Period	5.0	0.2	0.13	5.5	-0.0	0.92	4.6	0.1	0.35	6.6	-0.1	0.72
Year 1	2.7	0.1	0.23	2.8	0.0	0.99	2.4	0.1	0.38	3.4	-0.0	0.60
Year 2	2.3	0.1	0.13	2.7	-0.0	0.87	2.2	0.1	0.43	3.2	-0.1	0.60
Average Quarterly Earnings (in 1996 Dollars)												
Two-Year Period	1,561	87	0.28	1,827	4	0.97	1,367	64	0.44	1,665	-37	0.67
Year 1	1,505	74	0.35	1,696	0	0.99	1,284	33	0.67	1,593	24	0.77
Year 2	1,621	107	0.26	1,958	7	0.96	1,450	94	0.34	1,793	-104	0.34
Percentage Ever Employed												
Two-Year Period	92.8	1.3	0.36	98.4	-3.4	0.01**	86.4	-0.9	0.66	100.0	0.0	0.99
Year 1	88.5	2.1	0.21	93.3	-2.4	0.22	81.7	-2.1	0.32	99.1	-1.1	0.21
Year 2	75.8	5.5	0.02**	85.5	-0.3	0.92	70.0	1.1	0.64	95.3	-1.1	0.52
Sample Size^b	494-550	1,3851,545	--	425	804	--	500	1,506	--	318-375	663-754	--

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression-adjusted.

^aThe estimated impact represents the difference between the program and control group means.

^bSample sizes fall in a range because of differing numbers of missing values for different characteristics.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.2

IMPACTS ON EMPLOYMENT AND EARNINGS, BY QUARTER AFTER SAMPLE INTAKE

	Chicago			Portland			Riverside			San Antonio		
	Control Group Mean	Estimated Impact ^a	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value
Percentage of Sample Members Employed												
Quarter 1	81.1	0.9	.65	67.2	1.8	.57	68.6	0.2	.95	93.1	-2.2	.27
Quarter 2	67.3	1.2	.62	71.4	-0.7	.84	61.5	2.8	.29	83.2	-0.0	.99
Quarter 3	58.0	1.7	.51	70.3	2.0	.53	56.4	1.9	.47	82.4	-4.2	.16
Quarter 4	59.1	5.0	.05*	71.1	-3.0	.36	55.9	2.4	.37	76.9	0.8	.81
Quarter 5	59.2	4.5	.08*	67.8	2.6	.44	54.6	4.1	.13	81.1	-5.8	.07*
Quarter 6	59.4	3.4	.19	70.7	-2.1	.52	53.9	2.3	.40	77.5	-4.5	.16
Quarter 7	57.4	4.8	.06*	67.3	-2.8	.41	55.0	1.1	.69	75.5	-0.2	.96
Quarter 8	58.0	2.3	.41	65.6	0.6	.86	54.4	-0.2	.95	81.2	-0.7	.83
Quarterly Earnings (in 1996 Dollars)												
Quarter 1	1,636	55	.50	1,446	-90	.37	1,197	-10	.89	1,540	47	.60
Quarter 2	1,489	108	.24	1,645	63	.61	1,322	67	.47	1,625	47	.64
Quarter 3	1,386	68	.47	1,840	-3	.98	1,285	57	.56	1,684	-81	.44
Quarter 4	1,508	65	.51	1,852	31	.82	1,333	20	.84	1,657	49	.67
Quarter 5	1,592	101	.33	1,981	-57	.68	1,425	79	.46	1,768	-152	.17
Quarter 6	1,634	132	.21	1,984	39	.78	1,441	105	.34	1,770	-119	.32
Quarter 7	1,594	158	.14	1,911	48	.74	1,453	105	.35	1,759	-2	.99
Quarter 8	1,649	8	.94	1,957	-1	.99	1,484	85	.45	1,970	-20	.88
Sample Size	993	1,545	--	379	804	--	1,006	1,506	--	376	748	--

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression-adjusted. Impacts correspond to those displayed graphically in Figures 2 and 3.

^a The estimated impact represents the difference between the program and control group means.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.3

AFDC AND FOOD STAMP BENEFITS DURING THE TWO-YEAR FOLLOW-UP PERIOD

	Chicago			Portland			Riverside			San Antonio		
	Control Group Mean	Estimated Impact ^a	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value
AFDC												
Percentage of Time Receiving AFDC												
Two-Year Period	69.6	-2.9*	0.10	33.3	0.0	0.99	61.1	0.1	0.54	32.8	-2.6	0.26
Year 1	78.5	-3.9**	0.02	42.9	-1.2	0.63	72.9	2.6	0.14	35.2	-3.4	0.16
Year2	60.7	-2.0	0.37	23.8	1.2	0.65	49.3	-0.3	0.91	30.3	-1.8	0.51
Average Monthly AFDC Benefits (in 1996 Dollars)												
Two-Year Period	208	-10	0.12	132	4	0.70	312	3	0.77	56	-4	0.39
Year 1	238	-11	0.11	169	6	0.54	382	11	0.29	61	-5	0.23
Year2	179	-10	0.21	95	5	0.66	240	-5	0.73	51	-2	0.70
Food Stamps												
Percentage of Time Receiving Food Stamps												
Two-Year Period	74.6	-0.9	0.58	62.3	0.9	0.70	57.1	0.6	0.75	79.5	-4.1**	0.04
Year 1	81.9	-2.3	0.13	73.7	-1.4	0.51	66.2	2.7	0.17	85.7	-3.3*	0.08
Year 2	67.3	0.5	0.81	50.7	3.4	0.24	48.0	-1.4	0.56	73.4	-5.0*	0.06
Average Food Stamp Benefits (in 1996 Dollars)												
Two-Year Period	189	-5	0.30	138	5	0.36	104	0	0.93	204	-6	0.33
Year 1	205	-8*	0.10	165	1	0.92	120	4	0.29	216	-4	0.46
Year2	173	-2	0.71	110	11	0.14	87	-3	0.51	192	-8	0.33
Sample Size^b	990	1,540		411-425	784-803		494-499	1,488-1,504		384	774	

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression adjusted.

^a The estimated impact represents the difference between the program and control group means.

^b Sample sizes fall in a range because of differing numbers of missing values for different characteristics.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.4
 IMPACTS ON AFDC RECEIPT AND BENEFIT AMOUNTS

	Chicago			Portland			Riverside			San Antonio		
	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value
Percentage of Sample Members Receiving AFDC												
Month 1	95.0	0.0	0.99	78.5	5.1	0.06*	96.5	1.2	0.20	56.1	-0.9	0.81
Month 2	87.7	-2.3	0.19	52.5	3.2	0.36	91.8	1.8	0.20	35.3	-1.3	0.72
Month 3	84.3	-5.4	0.01**	45.4	-2.3	0.51	85.1	2.5	0.17	32.3	-3.1	0.36
Month 4	80.3	-2.8	0.19	44.1	-5.0	0.15	79.1	3.6	0.09*	33.3	-3.5	0.30
Month 5	79.5	-4.8	0.02**	45.5	-8.7	0.01**	75.6	1.7	0.44	32.6	-4.6	0.17
Month 6	79.2	-5.4	0.01**	41.3	-6.5	0.05*	70.8	3.9	0.11	32.6	-3.8	0.26
Month 7	77.0	-5.6	0.01**	37.2	-0.9	0.78	67.8	3.2	0.20	32.6	-2.8	0.41
Month 8	74.5	-3.3	0.14	35.2	0.3	0.92	65.5	3.1	0.22	31.9	-1.5	0.65
Month 9	73.1	-4.2	0.06*	35.5	-1.1	0.75	63.6	2.6	0.31	34.8	-5.7	0.09*
Month 10	71.7	-4.4	0.06*	34.5	-0.0	1.00	61.6	2.2	0.37	33.9	-5.9	0.08*
Month 11	70.3	-4.5	0.05*	32.9	0.3	0.93	59.4	2.5	0.34	33.8	-4.5	0.18
Month 12	69.8	-3.7	0.12	32.0	1.1	0.75	58.5	2.1	0.43	33.6	-3.2	0.34
Month 13	67.6	-1.8	0.46	29.4	2.4	0.45	56.8	0.4	0.88	34.5	-4.9	0.14
Month 14	65.9	-2.6	0.28	27.6	3.0	0.35	54.9	1.6	0.54	33.5	-4.6	0.16
Month 15	64.6	-3.3	0.18	26.6	1.4	0.66	53.3	1.9	0.49	32.9	-2.2	0.51
Month 16	62.3	-1.6	0.53	25.2	1.4	0.65	52.1	1.2	0.65	30.3	1.3	0.69
Month 17	61.7	-0.5	0.84	23.8	2.9	0.35	50.5	0.5	0.83	28.7	1.9	0.55
Month 18	61.0	-2.4	0.35	22.4	2.7	0.38	49.0	0.7	0.81	29.3	1.0	0.77
Month 19	60.1	-2.4	0.34	23.8	1.0	0.76	48.8	-0.8	0.77	29.2	-0.4	0.89
Month 20	58.0	-1.9	0.47	23.9	-1.4	0.65	47.5	-2.2	0.42	29.1	-0.6	0.86
Month 21	58.1	-1.7	0.52	21.3	0.7	0.82	46.2	-1.6	0.55	29.6	-3.2	0.31
Month 22	57.4	-2.1	0.42	20.6	0.1	0.98	45.1	-2.0	0.45	29.6	-2.9	0.37
Month 23	56.6	-2.6	0.30	19.8	0.1	0.86	43.9	-1.0	0.69	28.3	-2.6	0.43
Month 24	54.9	-0.9	0.73	20.9	-0.1	0.77	43.1	-2.2	0.41	28.8	-4.4	0.14
Monthly AFDC Benefits (in 1996 Dollars)												
Month 1	365	22	0.36**	337	21	0.12	552	8	0.37	101	-1	0.93
Month 2	244	4	0.71	195	23	0.13	508	5	0.61	61	-3	0.60
Month 3	227	-11	0.23	172	7	0.63	434	7	0.57	54	-6	0.29
Month 4	229	-7	0.46	173	-7	0.64	392	19	0.17	55	-4	0.55
Month 5	230	-19	0.05*	182	-26	0.10*	677	12	0.41	55	5	0.45
Month 6	240	-21	0.04**	165	-18	0.22	362	26	0.07*	55	-3	0.63
Month 7	230	-11	0.27	147	-5	0.74	347	16	0.27	58	-5	0.44

TABLE A.4 (continued)

	Chicago			Portland			Riverside			San Antonio			
	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	
Month 8	231	-14	0.15	138	1	0.93	337	18	0.23	55	-1	0.93	
Month 9	227	-19	0.06*	131	15	0.31	331	10	0.49	59	-8	0.89	
Month 10	219	-21	0.03**	134	5	0.73	320	10	0.53	59	-10	0.10	
Month 11	211	-19	0.06*	131	5	0.74	304	11	0.49	60	-10	0.12	
Month 12	206	-9	0.38	128	12	0.42	302	5	0.76	61	-10	0.13	
Month 13	196	-12	0.20	115	16	0.26	289	6	0.67	59	-4	0.49	
Month 14	197	-17	0.09*	107	14	0.30	277	-1	0.93	57	-5	0.40	
Month 15	187	-12	0.21	104	-1	0.96	269	5	0.76	55	1	0.82	
Month 16	187	-12	0.24	95	9	0.50	258	-1	0.96	50	7	0.28	
Month 17	188	-9	0.36	98	10	0.48	250	3	0.86	50	2	0.72	
Month 18	181	-11	0.24	89	11	0.40	244	-6	0.70	50	1	0.85	
Month 19	179	-17	0.07*	95	6	0.66	233	-10	0.48	50	2	0.73	
Month 20	171	-10	0.26	96	-6	0.64	223	-6	0.69	50	1	0.89	
Month 21	169	-5	0.57	85	1	0.93	218	-5	0.74	50	-6	0.30	
Month 22	170	1	0.93	82	1	0.95	211	-8	0.57	51	-8	0.17	
Month 23	168	-7	0.50	78	1	0.94	208	-5	0.74	48	-6	0.29	
Month 24	161	-3	0.71	87	-2	0.85	199	-7	0.64	48	-7	0.22	
Sample Size ^b	990	1,540	--	375-378	781-803	--	978-1,005	1,471-1,504	-	-	390	773-774	--

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression-adjusted.

"The estimated impact represents the difference between the program and control group means.

^b Sample sizes fall in a range because of differing numbers of missing values for different characteristics.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.5

IMPACTS ON FOOD STAMP RECEIPT AND BENEFIT AMOUNTS

	Chicago			Portland			Riverside			San Antonio		
	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value
Percentage of Sample Members Receiving Food Stamps												
Month 1	95.4	0.6	0.58	97.8	-1.4	0.24	85.8	1.4	0.45	93.8	-1.5	0.40
Month 2	91.5	-3.5	0.02**	91.6	-1.9	0.37	81.5	2.6	0.21	89.5	-1.6	0.48
Month 3	87.1	-5.2	0.01**	85.0	-2.5	0.34	75.8	3.4	0.13	89.4	-4.0	0.09*
Month 4	83.6	-2.9	0.14	79.7	-4.2	0.16	71.5	3.0	0.21	89.1	-3.5	0.13
Month 5	82.7	-2.9	0.14	75.5	-3.5	0.26	67.8	3.5	0.16	87.2	-3.3	0.19
Month 6	80.8	-1.1	0.60	71.7	-2.9	0.36	63.7	3.0	0.24	85.6	-4.5	0.09*
Month 7	80.7	-3.8	0.07*	69.5	-1.5	0.65	61.1	3.6	0.16	84.7	-4.0	0.13
Month 8	78.1	-2.3	0.30	86.9	-2.2	0.49	59.7	2.8	0.29	83.4	-2.4	0.37
Month 9	77.3	-2.2	0.31	64.9	-2.0	0.54	58.3	2.3	0.40	82.3	-2.6	0.33
Month 10	75.9	-2.0	0.36	62.4	1.8	0.59	57.6	2.6	0.33	81.4	-3.7	0.19
Month 11	75.3	-0.9	0.69	60.8	1.2	0.72	56.2	2.1	0.43	81.5	-4.5	0.11
Month 12	74.4	-1.3	0.58	57.8	3.8	0.27	55.4	1.1	0.68	80.2	-3.9	0.17
Month 13	73.1	-0.1	0.97	58.0	2.7	0.43	54.7	-1.0	0.73	80.2	-7.5	0.01**
Month 14	70.6	1.5	0.52	56.8	3.3	0.33	52.9	0.0	0.99	79.7	-7.5	0.01**
Month 15	69.8	-0.3	0.90	52.5	5.7	0.09	51.3	0.1	0.98	77.0	-4.7	0.12
Month 16	68.8	-0.0	1.00	52.9	5.8	0.09	49.8	0.5	0.86	75.4	-5.0	0.11
Month 17	67.3	1.0	0.69	51.4	5.9	0.08	49.0	-1.2	0.66	73.4	-5.0	0.11
Month 18	67.0	0.7	0.79	52.2	3.1	0.38	48.4	-1.4	0.60	74.8	-6.3	0.04**
Month 19	66.5	-0.2	0.92	50.3	3.4	0.33	47.6	-1.3	0.62	73.2	-4.1	0.19
Month 20	65.3	1.4	0.58	49.6	0.8	0.81	47.5	-3.3	0.22	72.2	-4.8	0.14
Month 21	65.6	1.1	0.64	49.6	-0.1	0.98	45.5	-2.4	0.37	71.1	-5.4	0.10*
Month 22	65.1	-0.0	1.00	46.1	2.3	0.52	44.5	-2.9	0.27	70.9	-6.1	0.06*
Month 23	65.1	-0.1	0.96	45.4	2.6	0.48	43.4	-2.6	0.33	67.1	-1.5	0.65
Month 24	64.0	1.3	0.60	46.1	2.4	0.49	41.8	-2.2	0.41	66.4	-1.9	0.57
Monthly Food Stamp Benefits (in 1996 Dollars)												
Month 1	255	-0	0.93	236	-4.5	0.46	170	4.2	0.35	267	-0	0.94
Month 2	199	-8	0.19	193	-2.7	0.72	155	5.1	0.30	266	5	0.47
Month 3	194	-14	0.03**	189	3.1	0.68	131	2.7	0.58	212	-4	0.60
Month 4	199	-3	0.69	180	-9.9	0.22	120	6.5	0.21	217	-8	0.28
Month 5	204	-9	0.17	173	-10.7	0.19	117	7.4	0.15	214	-7	0.34
Month 6	210	-10	0.19	160	-0.4	0.96	113	6.3	0.25	211	-7	0.40

TABLE A.5 (continued)

	Chicago			Portland			Riverside			San Antonio		
	Control Group	Mean	Estimated Impact	p-Value	Control Group	Mean	Estimated Impact	p-Value	Control Group	Mean	Estimated Impact	p-Value
Month 7	209	-10	0.14	154	4.2	0.62	109	6.1	0.27	210	-6	0.45
Month 8	205	-11	0.12	150	3.6	0.68	107	8.4	0.13	206	1	0.91
Month 9	202	-5	0.46	150	-0.7	0.93	106	6.7	0.23	205	-4	0.64
Month 10	197	-9	0.21	143	8.5	0.34	104	4.6	0.42	206	-4	0.62
Month 11	196	-10	0.15	138	6.5	0.47	105	-1.2	0.84	207	-5	0.58
Month 12	192	-7	0.33	129	1.0	0.26	103	-0.6	0.91	212	-13	0.16
Month 13	185	-4	0.57	129	6.7	0.44	101	-2.6	0.66	210	-14	0.12
Month 14	193	-5	0.48	125	14.3	0.11	96	2.3	0.69	206	-15	0.10
Month 15	178	-5	0.49	115	19.5	0.03**	94	-0.5	0.93	203	-10	0.30
Month 16	179	-5	0.54	115	18.6	0.03**	92	-4.1	0.48	198	-6	0.51
Month 17	178	-8	0.29	111	19.4	0.03**	87	-2.9	0.61	196	-13	0.18
Month 18	173	-3	0.65	112	10.3	0.23	88	-5.5	0.35	194	-7	0.46
Month 19	174	-8	0.30	111	8.4	0.33	86	-4.5	0.43	188	-2	0.85
Month 20	166	-1	0.86	104	6.3	0.46	84	-6.2	0.29	185	-2	0.83
Month 21	166	5	0.48	106	-0.5	0.95	82	-5.4	0.35	183	-9	0.39
Month 22	166	3	0.68	99	1.3	0.88	81	-5.0	0.39	185	-11	0.28
Month 23	168	-3	0.67	97	7.5	0.37	77	-1.7	0.77	176	-3	0.79
Month 24	162	4	0.57	98	8.4	0.31	76	-2.8	0.63	174	-5	0.62
Sample Size	990	1,540	--	372-378	794-803	--	970-1,005	1,454-1,504	--	390	773-774	--

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression-adjusted.

*The estimated impact represents the difference between the program and control group means.

**Sample sizes fall in a range because of differing numbers of missing values for different characteristics.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.6

TOTAL INCOME AND ITS SOURCES DURING THE TWO-YEAR FOLLOW-UP PERIOD

	Chicago			Portland			Riverside			San Antonio		
	Control Group Mean	Estimated Impact ^a	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value	Control Group Mean	Estimated Impact	p-Value
Average Annual Income (in 1996 Dollars)	11,032	99	0.71	10,548	113	0.75	10,460	309	0.32	9,770	-301	0.38
Earnings (in 1996 Dollars)	6,244	348	0.28	7,307	15	0.97	5,469	254	0.44	6,660	-149	0.67
Unearned Income (in 1996 Dollars)												
AFDC	2,501	-120	0.12	1,580	42	0.70	3,743	38	0.77	676	-44	0.39
Food stamps	2,268	-62	0.30	1,650	66	0.36	1,248	4	0.93	2,446	-76	0.33
Proportional Contribution of Various Sources to Total Income (Percentage)												
Earnings	47.2	3.0*	0.07	60.5	-1.3	0.56	44.1	0.6	0.97	61.1	1.0	0.59
AFDC	27.9	-1.9*	0.06	19.4	0.8	0.59	42.3	-0.1	0.96	9.6	-1.0	0.20
Food stamps	24.9	-1.0	0.19	20.3	0.4	0.71	13.7	0.0	0.99	30.9	-2.4	0.86
Income as Percentage of Poverty Level (Percentage)												
Less than 75	48.9	-5.3	0.07	43.7	-0.1	0.80	45.6	-2.3	0.59	58.0	-0.3	0.95
75 to 99	24.3	5.0		27.4	-1.8		27.9	0.0		23.8	0.9	
100 or higher	26.8	0.3		28.9	1.9		26.4	2.3		18.2	-0.6	
(Average)	(84.0)	(0.9)		(85.3)	(0.9)		(81.1)	(2.4)		(75.3)	(-2.0)	
Sample Size	990	1,540		379	804		1,002	1,500		379	754	

SOURCE: PESD administrative records data.

NOTE: Estimated impacts are regression-adjusted.

^aThe estimated impact represents the difference between the program and control group means.

^bThe distribution of income as a percentage of the poverty level is statistically significant at the .10 level, two-tailed test.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLJ
EMPLOYMENT AND EARNINGS: SUBGROUP IMPACTS

	Chicago				Portland				Riverside				San Antonio			
	Percentage of Time Employed		Average Quarterly Earnings [§]		Percentage of Time Employed		Average Quarterly Earnings [§]		Percentage of Time Employed		Average Quarterly Earnings [§]		Percentage of Time Employed		Average Quarterly Earnings [§]	
	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact
Age (in Years)																
<21	64.7	2.6	1,294	115	66.8	-5.0	1,471	-98	55.4	8.2	1,117	141	77.9	1.9	1,740	-233
21-25	68.1	-0.1	1,600	-48	65.6	-1.2	1,606	146	60.3	1.7	1,243	55	79.0	-0.4	1,639	22
26-30	58.2	8.6**	1,462	215	71.6	-0.4	2,018	-127	58.6	4.1	1,359	41	82.5	-4.3	1,774	-187
31-35	60.9	-0.1	1,613	39	67.7	2.1	2,020	-124	55.9	1.9	1,467	67	81.7	-0.4	1,805	48
>35	60.1	5.0	1,654	119	72.2	0.6	1,867	81	56.1	-0.7	1,393	72	18.4	-4.8	1,448	37
Race/Ethnicity																
Hispanic	62.1	8.9*	1,852	293	--	--	**	--	63.1	2.1	1,516	81	81.5	-2.1	1,731	-82
Black, non-Hispanic	62.6	1.6	1,511	38	72.8	-0.4	1,856	-125	54.3	1.7	1,149	185	76.3	-2.2	1,450	33
White/other non-Hispanic	62.1	11.7*	1,724	370	67.6	-0.1	1,818	48	54.9	1.2	1,342	7	79.5	-2.3	1,671	92
Age of Youngest Child (in Years)																
<3	59.3	4.8	1,452	149	73.1	-4.4	1,901	-70	58.9	-5.5	1,521	-374	78.4	-1.9	1,744	-198
3-5	63.4	3.8	1,591	185	68.2	2.8	1,965	-45	55.5	-4.6*	1,256	245**	78.9	-0.7	1,616	50
6-12	65.9	0.6	1,681	-58	65.9	-2.6	1,745	-143	61.1	-1.5	1,515	-132	83.0	-4.1	1,686	-41
≥13	61.0	0.7	1,512	-79	57.1	16.4**	1,268	911**	56.1	2.6	1,379	46	85.8	-4.9	1,580	219
Education																
Less than high school/GED	61.2	4.4	1,353	106	61.6	0.4	1,543	80	51.1	-3.6	1,037	114	77.5	-2.2	1,570	-20
High school/GED	62.0	3.2	1,567	97	68.2	-0.6	1,769	-6	51.8	2.6	1,399	61	79.5	1.4	1,619	-244
More than high school/GED	66.8	-0.8	2,063	20	76.4	-3.2	2,853	-438	66.8	4.5	1,832	158	83.1	-3.8	1,843	22
Employed in Two of Three Quarters Prior to Enrollment																
Yes	65.7	1.5	1,518	134	73.6	-1.1	1,907	13	58.3	3.0	1,156	179	80.3	-0.6	1,492	-86
No	61.3	3.6*	1,578	70	66.5	0.3	1,785	-1	57.3	1.5	1,423	32	80.2	-2.9	1,756	-13
Received AFDC Full Year Prior to Enrollment																
Yes	62.8	3.1	1,571	102	69.2	1.2	1,916	-103	58.3	0.4	1,399	3	78.7	0.5	1,484	209
No	61.6	3.8	1,540	0	70.0	-2.3	1,734	69	63.3	-6.2	1,889	-72	82.3	-4.3	1,825	-267**
Program Enrollment																
1994	62.9	1.5	1,600	3	71.2	3.0	1,835	200	58.5	1.9	1,419	22	--	--	--	--
1995	62.1	4.3*	1,527	161	67.8	-1.9	1,829	-102	56.4	1.8	1,305	110	**	--	--	--

SOURCE: PESD administrative records data.

NOTE: Estimates are based on difference between the regression-adjusted mean value of the outcome variable for participants and the regression-adjusted mean for nonparticipants among members of the relevant subgroup. The regression model used to generate these estimates WAS an ordinary least squares model that included an interaction between program status and the subgroup of interest.

*All earnings are expressed in 1996 dollars.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.8

AFDC RECEIPT AND BENEF. SUBGROUP IMPACTS

	Chicago				Portland				Riverside				San Antonio			
	Percentage of Time Received AFDC		Average Monthly AFDC Benefits		Percentage of Time Received AFDC		Average Monthly AFDC Benefits		Percentage of Time Received AFDC		Average Monthly AFDC Benefits		Percentage of Time Received AFDC		Average Monthly AFDC Benefits	
	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact
Age (in Years)																
<21	78.2	-3.8	233	-18	35.6	-4.8	137	-19	57.3	8.1	278	43	33.7	1.3	62	-1
21-25	14.2	-1.2	221	-1	35.1	-2.1	137	-8	61.7	1.5	309	5	34.4	-4.1	59	-6
26-30	70.0	-6.1	215	-18	34.7	-4.3	132	-9	61.8	0.3	310	5	33.5	-5.0	58	-8
31-35	66.4	-3.0	191	-6	27.9	7.1	107	39*	59.9	4.4	310	10	28.5	1.1	46	7
>35	62.1	-1.8	191	-16	33.4	3.3	143	7	61.5	-2.0	320	-9	33.4	-1.5	58	-6
Race/Ethnicity																
Hispanic	64.4	-13.7**	176	-41**	--	--	--	--	63.4	-0.2	324	-10	31.0	-1.4	53	-2
Black, non-Hispanic	70.5	-0.4	214	-4	40.9	1.2	155	8	65.0	-2.3	332	-15	38.9	-2.2	67	-1
White/other non-Hispanic	66.6	-17.5**	188	-31	30.6	-0.5	123	2	58.2	3.4	297	19	32.9	-9.2	56	-16
Age of Youngest Child (in Years)																
<3	73.1	-3.1	220	-6	33.6	0.1	139	6	64.8	4.0	352	-3	34.2	-0.1	59	1
3-5	68.6	-2.1	215	-15	32.5	-0.9	125	0	62.7	1.4	327	-4	34.7	-7.4**	60	12*
6-12	67.1	-4.7	191	-6	32.2	6.7	124	30	59.9	0.5	293	17	30.6	-0.3	51	0
≥13	67.2	-0.5	192	-18	37.2	-16.4**	141	-70**	53.9	-0.3	261	5	23.3	5.8	38	11
Education																
Less than high school/GED	14.3	-2.2	224	-11	38.5	1.2	150	1	65.1	-1.2	342	31	35.7	-2.4	57	-5
High school/GED	68.1	-3.9	203	-17*	31.5	-1.1	125	9	61.7	5.0	309	14	33.1	-3.8	58	0
More than high school/GED	61.5	-2.0	181	9	32.2	-4.9	136	-31	54.1	-4.8	266	-32	30.7	-2.6	52	-2
Employed in Two of Three Quarters Prior to Enrollment																
Yes	66.8	1.2	196	8	31.6	1.3	122	7	66.7	1.2	338	-1	30.5	-5.3	49	-7
No	70.7	-4.5**	213	-17**	34.2	-0.7	136	2	59.6	1.1	305	4	33.8	-1.3	60	-2
Received AFDC Full Year Prior to Enrollment																
Yes	70.5	-4.1**	212	-19**	35.9	0.1	142	2	62.3	1.7	317	11	36.9	-6.7*	64	-11*
No	67.2	2.1	200	17	33.4	-2.2	131	-5	32.8	25.0*	171	50	29.1	2.8	49	7
Program Enrollment																
1994	70.4	-3.4	217	-7	32.7	-2.4	130	-12	60.3	2.7	311	1	--	--	--	--
1995	68.9	-2.5			33.6	1.3	132	12	62.0	-0.6	313	6	--	--	--	--

SOURCE: PESD administrative records data.

NOTE: Estimates are based on difference between the regression-adjusted mean value of the outcome variable for participants and the regression-adjusted mean for nonparticipants among members of the relevant subgroup. The regression model used to generate these estimates was an ordinary least squares model that included an interaction between program status and the subgroup of interest.

*All earnings are expressed in 1996 dollars.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

TABLE A.9

FOOD STAMP BENEFIT AND AM IS: SUBGROUP IMPACTS

	Chicago				Portland				Riverside				San Antonio			
	Percentage Received Food Stamps		Average Monthly Food Stamp Benefits		Percentage Received Food Stamps		Average Monthly Food Stamp Benefits		Percentage Received Food Stamps		Average Monthly Food Stamp Benefits		Percentage Received Food Stamps		Average Monthly Food Stamp Benefits	
	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact	Control Group Mean	Estimated Impact
Age (in Years)																
<21	82.4	-6.8	197	-16	68.5	-8.3	159	-30	41.6	18.3*	59	20	17.4	0.4	181	8
21-25	77.5	0.2	195	0	68.1	-5.0	149	-9	58.7	-3.2	90	2	77.1	-5.0	191	-15
26-30	75.3	-3.6	189	-9	62.7	-0.4	134	3	55.6	1.0	102	2	82.2	-3.7	208	-4
31-35	72.8	-2.3	186	-15	55.4	9.3*	119	28**	57.6	2.3	108	-2	79.3	-6.7	200	-4
>35	65.6	4.0	181	4	57.8	5.5	135	18	58.6	-0.9	115	-3	80.2	-2.3	226	-3
Race/Ethnicity																
Hispanic	67.1	-8.8*	166	-30*	--	--	--	--	58.9	-1.2	106	-5	78.0	-2.9	203	-8
Black, non-Hispanic	16.3	0.9	193	-1	67.4	4.2	146	17	64.6	-4.8	124	-10	85.1	-4.9	216	3
White/other non-Hispanic	66.5	-10.1	173	-22	60.5	-0.3	134	1	53.3	3.8	96	8	78.8	-8.8	188	-12
Age of Youngest Child (in Years)																
<3	79.9	-2.9	203	-6	65.6	-4.9	145	-7	60.5	1.4	128	-5	80.4	-2.3	212	-1
3-5	72.8	-0.1	189	-8	56.4	8.0*	127	16	58.8	0.4	109	-1	79.6	-3.4	211	-12
6-12	73.0	-2.5	175	-4	62.1	7.0	134	25**	55.5	0.8	97	3	79.0	-5.1	189	-2
≥13	69.2	7.4	179	3	67.5	-12.7*	146	-26	50.9	0.7	82	5	76.0	-13.9*	179	-20
Education																
Less than high school/GED	78.9	-0.8	204	-9	67.0	0.6	152	5	61.1	0.3	115	10	83.7	-1.7	229	0
High school/GED	73.6	-1.1	183	-2	62.2	3.1	135	12	57.7	5.8*	102	8	78.5	-0.2	200	-6
More than high school/GED	66.4	-0.6	167	-4	53.4	-3.0	122	-9	52.4	-6.4	96	-15	79.5	-11.5**	199	-21*
Employed in Two of Three Quarters Prior to Enrollment																
Yes	73.3	4.0	180	7	63.4	1.3	135	9	62.3	-0.2	113	-3	85.1	-7.4**	217	-23
NO	75.1	-2.7	192	-10*	61.7	0.6	139	4	55.7	0.8	101	1	76.7	-2.5	197	2
Received AFDC Full Year Prior to Enrollment																
Yes	75.4	-2.7	190	-13**	62.5	4.3	142	8	58.2	1.2	105	2	83.0	-4.7	220	-9
No	72.5	4.7	180	19*	65.4	-4.5	144	-5	37.9	10.8	76	-12	77.8	-0.5	190	6
Program Enrollment																
1994	74.6	-1.1	193	-6	60.5	0.9	134	0	56.5	2.4	101	1	--	--	--	--
1995	74.6	-0.8	186	-4	63.2	0.8	139	8	57.9	-1.4	107	-0	--	--	--	--

SOURCE: PESD administrative records data

NOTE: Estimates are based on difference between the regression-adjusted mean value of the outcome variable for participants and the regression-adjusted mean for nonparticipants among members of the relevant subgroup. The regression model used to generate these estimates was an ordinary least squares model that included an interaction between program status and the subgroup of interest.

*All earnings are expressed in 1996 dollars.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

**POSTEMPLOYMENT SERVICES DEMONSTRATION
PROJECT REPORTS**

- Rangarajan, A., J. Haimson, A. Hershey, and S. Kerachsky. "The Evaluation Design for the Postemployment Services Demonstration." Princeton, NJ: Mathematica Policy Research, Inc., October 1994.
- Haimson, J., A. Hershey, and A. Rangarajan. "Providing Services to Promote Job Retention." Princeton, NJ: Mathematica Policy Research, Inc., October 1995.
- Rangarajan, A., S. Kerachsky, J. Haimson, A. Hershey, and R. Stapulonis. "Postemployment Services to Promote Job Retention Among Welfare Recipients." Princeton, NJ: Mathematica Policy Research, Inc., February 1996.
- Rangarajan, A. "Taking the First Steps: Helping Welfare Recipients Who Get Jobs Keep Them." Princeton, NJ: Mathematica Policy Research, Inc., November 1996.
- Haimson, Joshua, and Alan Hershey. "Getting Help to Stay Employed: The Use of Postemployment Services." Princeton, NJ: Mathematica Policy Research, Inc., April 1997.
- Rangarajan, Anu, Alicia Meckstroth, and Tim Novak. "The Effectiveness of the Postemployment Services Demonstration: Preliminary Findings." Princeton, NJ: Mathematica Policy Research, Inc., January 1998.
- Rangarajan, Anu. "Keeping Welfare Recipients Employed: A Guide for States Designing Job Retention Services." Princeton, NJ: Mathematica Policy Research, Inc., June 1998.