Evaluating the Effectiveness of Labor Exchange Services

Christopher J. O'Leary
W.E. Upjohn Institute
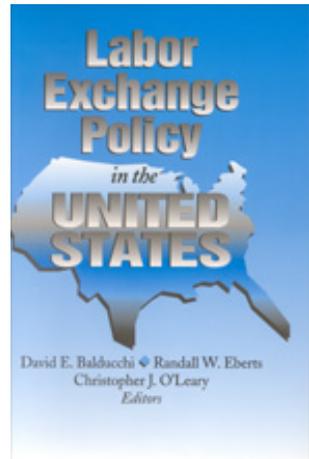
5
Evaluating the Effectiveness of Labor Exchange Services

Christopher J. O'Leary

The fundamental goal of public employment programs is to promote nonsubsidized employment and earnings among participants. Evaluations of a wide range of active labor market programs across a variety of countries have produced three essential findings in this regard: 1) job search assistance programs are the most cost-effective; 2) large-scale public service employment programs are the least effective and most costly; and 3) job training programs and employment subsidies fall somewhere in between, with the degree of cost-effectiveness dependent on proper targeting of assistance (Schwanse 2001, p. 22).

A sizeable share of the research supporting these conclusions was undertaken in the United States (Martin and Grubb 2001). However, evidence from recent evaluations in Europe are consistent with American studies, suggesting a broad applicability of lessons learned (Heckman, LaLonde, and Smith 1999, p. 1868).

With confidence bolstered by robust labor markets in the late 20th century, and guided partly by evidence from evaluation research, many nations moved their employment policies in the active direction (Thuy, Hansen and Price 2001, p. 35). A popular initiative has been to increase the level of job search activity expected for continued unemployment compensation eligibility.

This chapter examines evidence from U.S. evaluations of labor exchange activities. To set the context for this discussion, the next two sections review the elements of the labor exchange function and the composition of public labor exchange customers. This is followed by a brief overview of methodologies for labor exchange program evalua-

tion. The next three sections provide summaries of evaluation research grouped into the main themes of studies which have been done: job interview referrals, job search assistance, and targeted job search assistance. The final section offers a summary and some conclusions.[1]

THE LABOR EXCHANGE FUNCTION OF THE PUBLIC EMPLOYMENT SERVICE

Public employment services around the world have four main functions: 1) labor exchange; 2) administration of unemployment insurance (UI) benefits; 3) management of active labor market programs; and 4) labor market information (Thuy, Hansen, and Price 2001, p. 27). The first of these is the main function of the federal–state Employment Service (ES) in the United States. A crucial role of the ES in UI administration is testing the continued job readiness of beneficiaries.

Public labor exchange services in the United States are delivered through a network of local offices that operate within a federal–state system. The federal partner, the U.S. Employment Service (USES), cooperates with 54 state ES agencies to oversee the system. In addition to the 50 states, the network includes the District of Columbia, the Commonwealth of Puerto Rico, and the territories of Guam and the U.S. Virgin Islands.

The ES provides information to both the supply and demand sides of the job market, which can increase the speed of matches between qualified job seekers and employers wanting to fill specific job vacancies. By bridging the information gap, and speeding matches, the level of economic activity and employment can expand faster than otherwise possible.

The Workforce Investment Act of 1998 required the ES to be a partner in one-stop centers for public employment services in each workforce investment area around the country. There are currently about 600 workforce investment areas in operation. In addition to the ES, each one-stop center must provide access to programs for UI; disadvantaged, dislocated worker, and youth training; welfare-to-work; veterans employment and training; adult education; postsecondary vocational edu-

cation; vocational rehabilitation; Title V of the Older Americans Act; and Trade Adjustment Assistance.

Services offered at one-stop centers are divided into three levels: core, intensive, and training. Services within each level are characterized by the amount of staff involvement and the extent to which customers can access the service independently. Core services typically have the broadest access and the least staff involvement of the three categories. Intensive services require a greater level of staff involvement, and consequently, access is generally more limited than for core services. Training services involve the highest level of service intensity and are open to customers only through referrals.

The core services are the least costly to deliver and include most ES services; many are accessible on a self-serve basis. Table 5.1 provides an overview of ES service use during the 1999 program year, which extended from July 1999 through June 2000. In that 12-month period at the end of the 1990s business expansion, 16.7 million people applied for public labor exchange services in the United States. Among those

Table 5.1 Public Labor Exchange Data for the United States PY 1999 (July 1, 1999–June 30, 2000)

	Applicants	Eligible UI claimants
Total	16,708,228	6,165,645
Received some reportable service	10,944,034	3,417,600
Referred to employment	6,733,180	1,652,141
Received job search activities	6,704,938	2,428,242
Assessment services provided	1,777,295	659,725
Referred to skills training	395,589	173,779
Entered employment	3,601,620	1,116,840
Placed	1,771,107	359,366
Obtained employment	2,029,411	822,906

SOURCE: U.S. Employment Service (2001).

who applied, 65.5 percent received some reportable service; many others availed themselves of self-service activities, which go unrecorded.

The four categories of reportable services tracked by the USES (and their percentage use among applicants receiving some reportable service in program year 1999) are: 1) referred to employment—sent to a job interview with an employer who listed a job vacancy opening (61.5 percent); 2) received job search activities—resume preparation assistance, job search workshops, job finding clubs, provision of specific labor market information, and development of a job search plan (61.3 percent); 3) assessment services provided—assessment interview, employment counseling or testing (16.2 percent); and 4) referred to skills training—referred to any federal, state, or locally funded job skills training program (3.6 percent).

In nearly all states, UI claimants must register for job search with the ES in order to establish and/or maintain eligibility for weekly benefits. This linkage between the UI and ES programs is part of what is called the "work test" in UI, and it has been a key area of labor exchange evaluation research. Interventions which speed return to work by UI beneficiaries can generate significant savings in UI benefit payment expenditures.

Table 5.1 shows that in program year 1999, UI claimants made up 36.9 percent of ES customers. Column 3 of the table displays the number of UI claimants using various reportable employment services. Compared to all ES applicants, a smaller fraction of UI claimants actually received some reportable service. Among UI claimants, 71.1 percent with some reportable service received job search assistance (JSA), compared to 61.3 percent among all ES applicants.

The higher JSA usage rate may be due in part to the Worker Profiling and Reemployment Services (WPRS) systems that began operation in all states in 1995. WPRS identifies UI claimants who are not job attached and who are likely to exhaust their UI benefit entitlement, and quickly refers them to job search orientation and assistance. Benefit payments are suspended for those profiled and referred who fail to report for job search. This targeted job search assistance is one of the evaluated program innovations discussed later in this chapter.

The bottom rows of Table 5.1 are a type of gross outcome performance monitoring data. The outcome definitions are specific to the ES.

"Entered employment" is the number of UI claimants who become employed after having received a "reportable service." A "job placement" occurs when someone begins employment after being referred for a job interview. Those who "obtained employment" had received some reportable service other than direct referral to a job opening. When interpreting these results, it should be noted that most employers who solicit job seeker referrals from the ES require that more than one candidate be sent for an interview. In the absence of such employer requests, the placement rate would probably be higher.

Establishing UI benefit entitlement requires a significant level of recent employment and earnings. It means that UI beneficiaries have a higher degree of prior labor force attachment than other ES applicants. These two factors might explain the higher obtained employment rate and lower placement rate among claimants compared to nonclaimants. Employer attachment may make new job offers less attractive, and obtained employment counts probably include return to prior employers even after receiving some reportable service.

However, such interpretation of gross outcomes is mere speculation. The focus of this chapter is on comparison group design evaluations. As stated in the introduction, the bulk of comparison group studies of labor exchange services have been in three areas: job interview referrals, job search assistance, and targeted job search assistance. The latter two of these have focused on UI claimants but are believed to have broad applicability.

CUSTOMERS OF THE LABOR EXCHANGE

The labor exchange serves both sides of the job market: job seekers looking for work and employers looking to hire. This balanced customer view is evidenced in the layout of the Internet-based public labor exchange—America's Job Bank (www.ajb.org). America's Job Bank (AJB) offers both job seeker and employer services customized for each state and local labor market.

AJB services available to the supply side of the labor market (job seekers) include: searching a database of around one million jobs nationwide, creating and posting a resume online, and setting up an auto-

mated job search (or job scout). AJB services offered to the demand side of the labor market (employers) include searching an extensive resume database, posting available job openings, getting advice on writing job vacancy announcements, and conducting an automated search for potential employees (a resume scout). In late August 2002, the Web site listed the following inventory:

- Number of new jobs today: 28,566
- Number of new resumes today: 270
- Total jobs available: 938,611
- Total available resumes: 408,790

On the supply side of the labor market, labor exchange customers can be divided into three distinct groups: 1) UI claimants who are referred to WPRS; 2) other UI claimants; 3) and ES applicants not eligible for UI. A summary of the background characteristics of ES applicants during program year (PY) 1999 (July 1999 to June 2000) is given in Table 5.2. This table contrasts PY 1999 ES customers with all unemployed during calendar year 2000 in terms of demographic characteristics. By gender and race, ES registration for job search occurs at rates similar to the group proportions among all unemployed. However, compared to their share among all unemployed, youth are a smaller share of ES customers, while the less educated are a greater share of job seeking customers.

Labor exchange customers on the demand side of the labor market are employers. About one-third of all U.S. employers use the ES for recruiting employees (Holzer 1998, pp. 9–10). The distribution by industry of the nearly 7.5 million job openings listed with the ES in program year 1999 can be seen in Table 5.3. The table shows that industry shares of job listings differ from industry shares of employment. There are appreciably larger shares of job listings than employment for three particular industry groups: 1) agriculture, forestry and fisheries; 2) services; and 3) public administration. Public administration probably has a high listing rate because of government requirements for publicly posting job vacancies. High usage rates for the first two industries listed may be partly explained by high employee turnover rates in these industries, but much of the differences across industries may be attributable to the occupational mix of employment within industries.

Employers in industries which tend to employ higher cost labor may be more willing to incur direct monetary costs for job matching

Table 5.2 Characteristics of Applicants for Employment Service Programs, PY 1999 and Annual Average Monthly Unemployed, 2000

	ES applicants		All unemployed	
	Number	Percent	Number	Percent
Age—Youth (under 22)	2,305,938	13.8	1,303,000	23.0
Age—Older (over 54)	1,367,086	8.2	478,000	8.5
Gender—Female	7,710,699	46.1	2,701,000	47.8
Race—Black	3,588,649	21.5	1,269,000	22.4
Race—Hispanic	2,116,289	12.7	876,000	15.5
Education—Less than high school	3,220,905	19.3	771,000	13.6
Education—Post–high school degree/certificate	2,344,471	14.0	854,000	15.1
Total	16,708,228	100.0	5,655,000	100.0

SOURCE: U.S. Employment Service (2001) and <http://www.bls.gov/cps/home.htm>.

Table 5.3 ES Job Openings Listed by Industry, PY 1999 Average Monthly Employment by Industry, 2000

Industry categories	Job openings		Employment	
	Listed	Share	Number	Share
Agriculture, forestry, and fisheries	356,158	4.9	2,017,000	1.5
Mining	22,112	0.3	567,000	0.4
Construction	344,512	4.8	9,581,000	7.2
Manufacturing	964,456	13.3	18,970,000	14.2
Transportation and utilities	429,565	5.9	9,738,000	7.3
Wholesale trade	234,081	3.2	5,102,000	3.8
Retail trade	964,970	13.3	22,571,000	16.9
Finance, insurance, and real estate	223,802	3.1	8,797,000	6.6
Services	3,168,768	43.8	50,345,000	37.6
Public administration	524,800	7.3	6,125,000	4.6

SOURCE: U.S. Employment Service (2001) and <http://www.bls.gov/cps/home.htm>.

services, because the costs associated with a poor match would be greater for an employer paying higher wages. Similarly, job seekers in higher-wage labor markets may believe that paying agency fees will buy them access to preferred job opportunities. Low-paying jobs necessarily trade in a market where transactions costs are low. Services of the public labor exchange are provided for free. Because the ES provides job-matching services free of charge, they may also be used by employers who can quickly and adequately assess qualifications objectively through means like a resume, professional certification, licenses, or a standardized test score.

The occupational mix of job vacancies listed and filled by the ES in PY 1999 are reported in Table 5.4. Job listings span the range of occupations; however, the fill rates differ across occupations. The ES was successful in filling more than 40 percent of job vacancy listings in three occupational groups: domestic services, processing, and materials handling. These figures square with the industry mix information. Domestic services, other services, and package and materials handling are all main occupations in the services industry. Processing occupations are a major employment component of the manufacturing industry, which is also a good customer of the public labor exchange.

EVALUATING EFFECTIVENESS

Performance measurement of labor exchange activities, as discussed in Chapter 4 of this volume, concerns methods for tracking outcomes experienced by program participants. Such data on gross program outcomes are gathered in a consistent manner across all localities on a regular basis. This information is the foundation for management systems driven by objectives. Such information can help in program planning and management.

In contrast to performance management systems, the evaluation studies examined in this chapter all involve a comparison group design which permits estimation of the incremental effect of an intervention. The methodology, called net impact estimation, contrasts postprogram labor market outcomes of participants against an appropriately chosen counterfactual.

Table 5.4 Job Opening Listings by Occupation Received and Filled by the U.S. Employment Service, PY 1999

	Job openings		
Occupation categories	Received	Filled	Percent filled
Professional, technical, and managerial	1,120,430	136,235	12.2
Clerical	1,479,820	312,961	21.1
Sales	585,145	100,511	17.2
Domestic services	50,643	23,227	45.9
Other services	1,194,364	269,169	22.5
Farming, forestry, and fishing	297,151	98,311	33.1
Processing	344,807	158,593	46.0
Machine trades	341,424	107,074	31.4
Bench work	387,940	142,793	36.8
Structural	604,813	178,433	29.5
Motor freight	206,861	55,249	26.7
Transportation	108,201	19,881	18.4
Package and materials handling	666,534	282,719	42.4
Other	64,541	15,814	24.5
Total	7,452,674	1,900,970	25.5

SOURCE: U.S. Employment Service (2001).

For evaluating labor exchange programs, this means that personal and labor market characteristics enabling success are roughly equivalent in the two groups. Appropriate comparison group specification can be achieved by proper sample selection or through statistical means; that is, either by classical field experiments involving random assignment or by quasi-experimental statistical methods.

Classically designed experiments are the ideal for net impact estimation. If random assignment is achieved, modeling of behavior and complex econometric methods are not needed to obtain estimates.[2] With large samples randomly assigned to treatment and control groups, observable and unobservable characteristics of the two groups should not differ on average, so that any difference in outcomes may be attributed to the program. Program impacts may be measured as the simple difference between the means of the samples of program participants

and of control group members on measures of outcomes. Because this process is easy to understand, impact estimates computed this way can be very influential in informing policy.

When there is nonrandom assignment to either a program participant group or the comparison group, then to estimate the net impact of a program properly, statistical methods of correction must be used to offset selection bias. Such quasi-experimental evaluations are done because they are cheaper and can be done more quickly than classical experiments. They can often be performed using existing administrative data, which helps control evaluation costs.

The main challenge in quasi-experimental net impact evaluations concerns adequately dealing with the problem of selection bias. A popular approach to dealing with this problem was proposed by Heckman (1976), who characterized selection as an unobservable variable distinguishing program participants from nonparticipants. Other approaches involve strategically selecting a comparison group by matching characteristics of program participants with nonparticipants who appear to be otherwise similar. Such matching may be done on a set of characteristics or on a single summary measure of several characteristics (Heckman, LaLonde, and Smith 1999).

While performance monitoring of gross outcomes is a basis for program management, net impact estimation is a basis for policy development. Policy decisions concerning questions of whether to continue, expand, curtail, or cancel government employment programs require information about the return on government spending—the return on investment. Such cost–benefit analysis of programs requires measurement of net impacts.

Net impact evaluations are not without potential problems, even if the evaluation is done under the ideal conditions of a field experiment. The first type of potential pitfall is called *internal validity problems*. In the context of an experiment, internal validity problems include errors in conducting random assignment to treatment and control groups, and inconsistent experimental conditions. The first of these can lead to lack of homogeneity across groups; the second means that the same treatment was not applied in all cases. One problem of this type is called *dropout bias,* wherein a customer believed to be provided an experimental treatment in fact did not receive the service. The converse problem is called *substitution bias,* wherein a control group member actual-

ly receives the treatment, but through an unobserved channel (Heckman et al. 2000).

The second type of evaluation pitfall is called *external validity problems*. These affect the ability to transfer estimates from the evaluation context to the actual policy context. *Time horizon effects* can occur when treatment subjects understand that the experimental service is only temporary rather than permanent. *Learning effects* can take place within a community during the course of an evaluation whereby the first enrollees act differently from those enrolled some time after the evaluation begins. *Entry effects* not observed during an evaluation can emerge when an appealing service becomes generally available to a customer population. *Hawthorne effects* are responses to treatments simply due to the special attention,[3] not to the content of service. *Displacement effects*, which may be the most critical external validity concern, occur, for example, when participants in an evaluation improve their outcome at the expense of others who are not part of the evaluation.[4]

EFFECTIVENESS OF JOB INTERVIEW REFERRALS

The main activity of the public labor exchange in the United States is job interview referrals. In PY 1999, 61.5 percent of customers nationwide receiving an ES service were given a job interview referral. About half of those customers were identified as subsequently entering employment. However, such gross outcome assessments do not indicate the value added by job interview referrals from the ES.

In the past 20 years, three major studies of the ES in the United States have estimated the additional value provided by job interview referrals from the public labor exchange (Johnson et al. 1983; Katz 1991; Jacobson and Petta 2000). A summary of the designs, samples used, and main findings from each of these studies is provided in Table 5.5.

Each of the three studies framed the question of job referral effectiveness differently, but all three used a quasi-experimental approach. Random trial evaluations were ruled out because job interview referrals are a right to all ES applicants and cannot be denied simply to create a control group for experimental measurement. In reviewing these stud-

Table 5.5 Studies on the Effectiveness of Job Interview Referrals

Author/title	Design	Sample	Findings
Johnson et al. (1983) *A National Evaluation of the Impact of the United States Employment Service*	P1: ES job referral P2: Early ES job referrral C: Registered but received no services	National: 30 offices in 27 states July 1980 to May 1981 8,000 ES applicants	P1: 23**% earnings gain for all women, UI claimants, and non-claimants. Nil impacts for men. P2: Large earnings gains for women, modest earnings gains for men. Among men, bigger effects for men over 45 and in urban areas. Comments: Displacement effects possible. Results not affected by selectivity bias correction. Comparison group somewhat advantaged.
Katz (1991) *The Length of Joblessness and the ES: With Special Reference to Philadelphia and Pittsburgh, Pennsylvania 1979–1987.*	P1: ES placements P2: ES job referral C: No ES services	Pennsylvania: 1979–1987 5% sample of UI recipients, 16,470 jobless spells	P1: Reductions in duration of joblessness increased with time delay in applying for ES. Up to –23.7** weeks. P2: Reductions in duration of joblessness increased with time delay in applying for ES. Up to –20.5** weeks. Similar impacts in combination with JSA. Comments: Must control for delay in application, ES as a backstop, JSA most effective early.

| Jacobson and Petta (2000) *Measuring the Effect of Public Labor Exchange (PLX) Referrals and Placements in Washington and Oregon.* | P1: Job placements C1: Job referrals

P2: Job referrals C2: Not referred | Washington: survey of 587 early 1998, administrative data on 328,815 spells, 1987 to mid-1995
Oregon: administrative data on 138,280 spells, during 1995. | Washington survey data: P1: Strong work record –7.2 weeks, weak work record –3.8 weeks
Washington administrative data: P1: –7.7 weeks. P2: –2.1 weeks
Oregon administrative data: P1: –4.6 weeks. P2: –1.1 weeks. |

NOTE: P: participant group; C: comparison group.
** Statistically significant at the 95 percent level in a two-tailed test.

ies and their findings, we see how research has informed employment policy in the United States.

A National Evaluation of the ES in the United States

In the early 1980s, the U.S. Department of Labor sponsored a major nation-wide evaluation of the effectiveness of the ES (Johnson et al. 1983; Johnson, Dickinson, and West 1985). Baseline interviews were conducted with 8,000 new applicants in 30 ES offices nation-wide (in 27 states) between July 1980 and May 1981. To measure outcomes, personal in-home follow-up interviews were conducted six to nine months later.

Because not all ES registrants receive a reportable service, a natural contrast for evaluation existed. Those who received ES services (particularly job referrals) were compared to those who did not receive reportable ES services. The latter group may have perused job vacancy listings or done some other self-service activity. Success was measured on two labor market outcomes: earnings and the time from ES application to first job.

Statistical tests for differences in observable characteristics between service recipients and non-recipients showed the two groups to be quite similar. In fact, those not receiving ES services appeared to be somewhat more job ready than service recipients. The researchers asserted that the slightly more advantaged comparison group imparted a downward bias on estimated ES impacts. Estimates were computed controlling for a long list of observable characteristics commonly measured for ES customers, and three additional variables were constructed from responses to special quizzes administered for the evaluation project. There was also an attempt to apply a Heckman (1976) type selectivity bias correction; however, no suitable ES participation instruments were found. That is, no variables adequately explained ES program use independent of predicting subsequent labor market outcomes. After estimating impacts using a variety of sample definitions and statistical techniques, the authors assert the estimates presented to be robust to a wide range of alternative assumptions.

Overall job interview referrals were found to be effective by increasing earnings and reducing the time until return to work. However, the bulk of these benefits were found to be concentrated among female

users of ES services. A 23 percent increase in earnings was estimated for female service users, who returned to work nearly three weeks sooner than women not using ES services. The impacts for women were similar regardless of whether or not they were UI beneficiaries. The estimated impacts for men were nil.

A finer distinction in the treatment was also investigated. When the job referral is soon after ES application, impacts are still large for women and become somewhat positive for men. For this early ES intervention, two particular subgroups among men had larger impacts: those over 45 and those in urban areas. There were no differences for men who were union or job attached. Subgroup analysis revealed no differential effects between groups of women. About the effects for women, the authors speculate that "[p]art of the reason may be that women have less labor market experience and less access to the traditional network of job finding methods and that an ES referral constitutes more of a service for women" (Johnson, Dickinson, and West 1985 p. 136). In concluding, the study authors cautioned that their analysis focused on only partial equilibrium impact estimates and did not consider possible labor market displacement effects or other general equilibrium aspects of impact estimation.

Effectiveness of the ES for Dislocated Workers in Pennsylvania

The National Commission for Employment Policy sponsored research that exploited an uncommon feature of UI to estimate the effectiveness of ES for dislocated workers in Pennsylvania (Katz 1991). The study used data on UI recipients in Pennsylvania during the period 1979–1987. In those years Pennsylvania claimants were not required to register for job search with the ES. Most states require ES registration of UI claimants as part of their work test to reduce moral hazard (Blaustein, O'Leary, and Wandner 1997, pp. 28–29).

Program effects were estimated by comparing labor market outcomes of ES users against nonusers of ES. ES users had lower prior earnings and longer periods of joblessness but were otherwise observationally similar to nonusers of ES services. A 5 percent random sample of Pennsylvania UI recipients during years 1979–1987 yielded quarterly data on 16,470 jobless spells nearly equally split between the two largest cities in the state (8,198 Philadelphia; 8,272 Pittsburgh). De-

scriptive characteristics of claimants in the samples were similar across cities.

By using a sample of UI claimants, the study contributed to deliberations on policy for dislocated workers who emerged as an important program target group in the wake of the 1980s restructuring wave. UI beneficiaries tend to have higher recent earnings and a stronger labor force attachment than the average ES customer seeking work. This evidence was viewed as a supplement to the national ES evaluation that covered the entire pool of ES job seekers (Johnson et al. 1983; Johnson, Dickinson, and West 1985).

In addition to studying job interview referrals, the Pennsylvania study also examined job search assistance (resume assistance, job search workshops, job finding clubs, labor market information, and job search planning) and job placements. Methods for measuring effects of the latter must be clearly stated, as a job placement can be considered an outcome by itself. The effects of ES services given in a particular quarter were checked in subsequent quarters. Essentially, the durability of an ES job placement was measured against that resulting from other avenues of job finding. Katz (1991, p. 22) states that "[i]t is important to note that an ES placement does not automatically imply an end to joblessness as defined for this study. If an applicant was placed in any given quarter, he/she would need to remain employed in the subsequent quarter to be re-employed."

Net impact estimates were computed in regression models controlling for differences in observable characteristics. Investigation of the timing of using ES services revealed distinct patterns in effects. Job search assistance was most effective right after the start of a spell of joblessness. It was estimated to save up to 8.4 weeks of joblessness if used within the first calendar quarter following job separation.

Both job placements and referrals were found to be most effective two or three calendar quarters after commencement of joblessness. For users after two quarters, placements shortened jobless durations by an estimated 14.8 to 20.7 weeks, while referrals shortened durations by an estimated 10.5 and 13.2 weeks. For users after three quarters, placement impact estimates were as large as –23.7 weeks, and with impact estimates for job referrals between –14.8 and –20.5 weeks. Given their huge magnitude, all the estimates were statistically significant. Placements or referrals combined with JSA were estimated to have similar

effects. The direction of impact estimates for ES services is consistent with other research, but the estimated magnitude of impacts is much larger than anything else reported in the literature.

The key insight gained from this study regards the response to interventions at differing times in the jobless spell. The pattern that emerged led the study author to describe the ES as a "backstop," or a job-finding path followed when others have yielded no appealing prospects. "The effectiveness of the ES appeared to be much less a function of the characteristics of individual workers than the overall length of their joblessness" (Katz 1991, p. 21).

While results of this study are qualitatively consistent with other ES evaluations, the size of the impact estimates are astounding, being nearly three times as large as the ES impact estimate for women produced by Johnson et al. (1983) and Johnson, Dickinson, and West (1985). Any government program producing such success would likely be swamped with applicants and government funding.

Effectiveness of Referrals and Placements in Washington and Oregon

During the 1990s, the U.S. Department of Labor sponsored research to estimate the benefits derived from matching job seekers to openings listed by employers with the public labor exchange in Washington and Oregon. The study comprised investigations using three data sets, two from Washington and one from Oregon. The data for Washington consisted of survey data on 587 job seekers who used the public labor exchange in the first half of 1998, plus administrative data on 328,815 jobless spells that occurred between 1987 and the middle of 1995. The Oregon data were based on administrative records for 138,280 jobless spells in 1995.

Analysis of job placements using the Washington survey data revealed differences in impacts across ES customers depending on their recent patterns of job attachment. For job seekers characterized as having a spotty work record, the impact of a job placement was estimated to be –3.8 weeks, while the impact estimate was –7.2 weeks for those with a strong work record.

Impact estimation based on the administrative data did not distinguish between job seekers with spotty or strong work records. The im-

pact of job placements based on the Washington data was estimated to be –7.7 weeks, and the estimate based on Oregon data was –4.6 weeks. These estimates of job placement impacts based on administrative data were viewed as broadly consistent with those from the Washington survey data.

The impact of job referrals based on the Washington administrative data was estimated to be –2.1 weeks, and the estimate based on Oregon data was –1.1 weeks. An ES job placement can be distinguished from a job referral by the resources required to deliver the service. Nonetheless, the estimated cost of delivering either referrals or placements was low relative to impact estimates so that benefit–cost ratios were computed to exceed one for both interventions. The authors assert this to be sufficient justification for further public investment in ES activities.

Concern about the degree to which the Washington and Oregon ES evaluations were externally valid regarding displacement led to a related study. Davidson and Woodbury (2000) used a computerized simulation model of the labor market called a general equilibrium search and matching model (Davidson and Woodbury 1993). They calibrated the model with labor market data from Washington State and with impact estimates of Washington public labor exchange (PLX) services (Jacobson and Petta 2000). "The crowding-out effects of PLX referral and placement activities are small both absolutely and relative to the increases in employment that result from PLX activities . . . the benefits generated by PLX referral and placement activities outweigh the costs. The benefits again are twofold: shorter unemployment spells for PLX users and general improvements in the labor market that result from PLX activities" (Davidson and Woodbury 2000, pp. 19–20).

EFFECTIVENESS OF JOB SEARCH ASSISTANCE

Job search assistance comprises a bundle of services available from the public labor exchange which may include resume preparation assistance, job-finding clubs, provision of specific labor market information, development of a job search plan, and orientation to self-service resources (job vacancy listings, resume preparation, word processor competency testing, and telephones for contacting employers). In evalua-

tions of JSA, job search workshops (JSW) are treated as a distinct service.

Three specific evaluations of JSA performed in the past 20 years have been particularly influential in shaping public labor exchange policy. The designs, samples, and findings from these studies are given in Table 5.6. All three evaluations were done as field experiments involving random assignment. As mentioned above, evaluations of job referrals and placements have not applied an experimental design due to the untenable design requirement of withholding from the control group basic services having universal entitlement. Consequently, JSA evaluations have focused on UI claimants and have usually involved providing additional services.

It is well documented that in performing its income replacement function, UI acts as a disincentive to rapid return to work (Decker 1997). The work test that links the UI and ES programs in the United States is an institutional mechanism for monitoring whether UI beneficiaries are available and actively seeking work. The JSA evaluations have investigated various approaches to improving the effectiveness of the work test for UI.

Charleston Claimant Placement and Work Test Experiment

The first field experiment addressing aspects of the UI work test in the United States began enrollment in February 1983 in Charleston, South Carolina. Random assignment of 5,675 new initial UI claimants to three treatment groups and a control group was completed in December 1983. The experiment was designed to evaluate new procedures intended to improve the UI work test and enhance ES practices. The three treatments tested represented successively larger bundles of services. This design permitted contrasts against each other as well as against the single control group.

Claimants assigned to the control group were given the customary work test, which involved informing claimants that ES registration was required but involved no systematic monitoring of this requirement. The three treatments in Charleston were:

1) A strengthened work test. This test required that an ES registration notice be sent after the first UI benefit check was paid,

Table 5.6 Studies on the Effectiveness of Job Search Assistance

Author/title	Design	Sample	Findings
Corson, Long, and Nicholson (1985) *Evaluation of the Charleston Claimant Placement and Work Test Demonstration*	T1: Stronger work test T2: T1 plus enhanced placement services T3: T2 plus JSW C: Customary work test	Charleston, SC February to December, 1983 T: 4,247 C: 1,428	T1: –0.55* weeks UI T2: –0.61** weeks UI T3: –0.76** weeks UI Impacts greater on men and construction workers.
Johnson and Klepinger (1991) *Evaluation of the Impacts of the Washington Alternative Work Search Experiment*	T1: Exception reporting T2: New work search policy T3: Intensive services C: Existing work search policy	Tacoma, WA July 1986 to August 1987 T: 6,763 C: 2,871	T1: +3.34** weeks UI T2: +0.17 weeks UI T3: –0.47* weeks UI Exits increased preceding required service participation.

Klepinger et al. (1998) *Evaluation of the Maryland Unemployment Insurance Work Search Demonstration*	T1: Report four employer contacts weekly T2: Two contacts required weekly, but no reporting T3: Report two contacts weekly plus a four day JSW T4: Report two contacts weekly and both verified C1: Standard policy: report two contacts weekly but contacts not verified C2: Standard policy, but told data was to be used in an evaluation study	Maryland Six offices January 1, 1994 to December 31, 1994 Combined sample 23,758 monetarily eligible new initial UI claimants.	T1: –0.7** weeks UI T2: +0.4* weeks UI T3: –0.6** weeks UI T4: –0.9** weeks UI Impacts identical against either control group, suggesting no Hawthorne effect present. Treatments 1, 3 and 4 had no earnings impacts. Treatment 2 raised earnings by 4** percent.

NOTE: T: experimental treatment group; C: experimental control group; JSW: job search workshop.

* Statistically significant at the 90 percent confidence level in a two-tailed test; ** statistically significant at the 95 percent level in a two-tailed test.

with payment of the second check suspended for failure to register with the ES. This required establishment of improved data sharing systems between UI and ES.

2) A strengthened work test plus enhanced placement services; such as a personal placement interview within one week of the first UI check, a job referral or an outreach attempt to contact a prospective employer (job development), and training in using the job vacancy listings. Treatment assigned claimants were also told they would be called for special services again once they drew nine weeks of benefits.

3) A strengthened work test, enhanced placement services, a three-hour JSW, and, after four weeks of UI benefits, a JSW on labor market information.

The strengthened work test had the greatest impact. It alone shortened the duration of compensated joblessness by more than half a week; the impact estimate was –0.55 weeks of UI benefits. This effect was statistically significant, but not significantly different from the estimated effect of the second treatment. The addition of enhanced placement services resulted in an impact estimate of –0.61 weeks, or an insignificant increase over the strengthened work test alone. The impact estimate for the third treatment, which added JSWs, was –0.76 weeks of UI benefits, a modest incremental effect over either of the other treatments.

Impacts of the treatments were concentrated among men who averaged impacts of greater than –1.0 weeks for all treatments, and among workers in the construction industry, who had impacts of over –4.0 weeks. The relatively low cost of treatments resulted in jaw-dropping benefit–cost ratios in excess of 4. That is, more than $4.00 in UI benefit payments were saved for every dollar spent on the work test, JSA, and JSW services. The third treatment, which involved the largest number of components, had an average cost of only $17.58 in 1983 dollars.

In 1969 the UI trust fund was added to the federal unified budget. Conservation of UI funds consequently improves the overall budget picture. In the 1980s political environment of huge federal deficits, the Charleston Claimant Placement and Work Test Experiment drew attention to the strengthened work test, JSA, and JSW as appealing policy tools. These instruments offered the potential of providing positive services while conserving UI trust fund dollars.

Washington Alternative Work Search Experiment

Effects of the UI work test and related services of the public labor exchange were further investigated by a field experiment with random assignment between July 1986 and August 1987 in Tacoma, Washington, job service centers. A total of 6,763 UI claimants were assigned to one of three treatments, and 2,871 claimants were assigned to the control group, which followed the existing Washington State work search policy.

The standard work search rule required three employer contacts per week plus an eligibility review interview (ERI) 13–15 weeks after the initial claim was filed. This ERI involved a one-hour group session followed by a 15-minute individual interview. The focus of both sessions was on UI eligibility. The three treatments in Tacoma were:

1) Exception reporting—a complete relaxation of the work test. Claimants were not required to file the standard biweekly continued UI claim form, and were told that UI payments would continue until the claimant reported a change in circumstances, such as return to work or an increased level of earnings.
2) New work search policy—individualized work search requirements, including a group ERI followed by an intensive one-on-one follow-up interview.
3) Intensive services—individualized work search requirements (treatment 2), plus a two-day JSW after 4 weeks (two days of classroom instruction plus 10 hours of phone canvassing), plus a group ERI after 12 weeks with a focus on employability development, plus individual follow-up.

Suspension of enrollment into the first treatment was done earlier than planned because the larger than expected response could easily be detected with a sample much smaller than designed. Claimants were relieved of the work test, and continued claim filing increased their weeks of UI benefits drawn by a statistically significant 3.34 weeks. This impact was bigger for women with children and men without children, and for married women and unmarried men.

The new work search policy providing custom-tailored services and schedules had an effect on UI benefit receipt of +0.17 weeks, and

was statistically indistinguishable from the existing standard work search rule applied uniformly to all claimants.

Treatment number three, which was customized and had a JSW after 4 weeks and an ERI after 12 weeks, had a statistically significant impact of –0.47 weeks. Impacts were bigger for women without children and unmarried women. An analysis of the timing of the treatment and claimant response (at 4 and 12 weeks), compared to the standard treatment given the control group (at 13–15 weeks) provided new insight into claimant behavior. Researchers observed suspension of UI benefit receipt to be more common immediately before a scheduled intervention rather than after the service was provided. Such a response might be termed an "invitation effect."

This led to the conclusion that the timed elements of the work test— JSW and ERI—acted more like a stick-prodding return to work than a carrot providing nourishment for achieving that end. The researchers speculated that the response to treatment 2 had no identifiable peaks in the timing of exit from UI receipt because the individually customized schedule attenuated the observed response to an ERI invitation.

Needless to say, exception reporting was estimated to be very costly. Individualized requirements generated no differential impact. An invitation to attend either an ERI or JSW shortens duration, with the latter having a bigger effect. Exit rates are lower during and after the ERI and JSW, suggesting it is the requirement to attend rather than the value of the session which shortens duration.

Maryland UI Work Search Experiment

Enrollment into the Maryland UI work search experiment was conducted in six public labor exchange offices around the state throughout the entire calendar year of 1994. A combined sample of 23,758 new monetarily eligible UI claimants were enrolled in the experiment.

The standard work search policy was given to the control group. This required two job search contacts per week, which must be reported on the biweekly UI continued claim form but are not verified. The four alternative treatments tested were:

1) Report four weekly employer contacts, which are not verified.
2) Contact two employers per week but need not report the two contacted.

3) Report two weekly employer contacts, which are not verified, plus attend a four-day JSW early in the unemployment spell.
4) Report two weekly employer contacts; claimants are told contacts would be verified.

Requiring four employer contacts per week yielded a statistically significant impact of –0.7 weeks of UI benefits. This reduction in duration resulted even in the absence of any verification of the offers. Requiring two employer contacts per week but removing the requirement to report them resulted in a statistically significant increase in UI benefit durations of +0.4 weeks. The impact of requiring two employer contacts per week, which were not verified, plus attendance at a four-day JSW early in the unemployment spell was –0.6 weeks of UI. Like the Tacoma experiment, this impact was due to raising the hassle associated with staying on UI, not due to increasing claimants' job search skills. Notable for employers, this third treatment also reduced the probability of returning to the prior employer.

Requiring two employer contacts to be reported and telling claimants that their two contacts would be verified impacted UI benefits by –0.9 weeks. The verification rate of 10 percent appeared to be an adequate threat. Notably, the impact of this fourth treatment occurred during the first spell of joblessness. Similarly, the first treatment generated the bulk of its response during the first spell of joblessness in the benefit year.

The effects of treatments 1, 3, and 4 were not associated with lower reemployment earnings. However, eliminating the work search reporting requirement, as in treatment two, raises reemployment earnings by a statistically significant 4 percent.

A second control group facing the standard work test was also tracked, but claimants assigned to this group were told that their behavior was being tracked as part of an experiment. This was done to permit testing for the presence of a Hawthorne effect. This is relevant in ensuring external validity of the evaluation. If part of the treatment response to a new work test is simply due to added attention on the work test, then such an effect could quickly dissipate after actual implementation. Impact estimates computed as a contrast between the participant group and each of the two control groups were virtually identical, suggesting the absence of any Hawthorne effect.

EFFECTIVENESS OF TARGETED JOB SEARCH ASSISTANCE

Targeting of JSA surfaced as a policy option during the 1990s following the massive economic restructuring and worker dislocation of the previous decade. Earlier research had identified JSA as a cost-effective tool for promoting return to work. The question of whether JSA would be effective for those at risk of long-term unemployment was evaluated in the context of a major field experiment in New Jersey (Corson et al. 1989). Together with earlier evidence on JSA cost effectiveness, results from the New Jersey experiment supported establishment of the Worker Profiling and Reemployment Services (WPRS) system, which required targeted JSA (Wandner 1994).

Three subsequent studies have evaluated the effectiveness of targeted JSA. The first was undertaken around the time of WPRS start-up with special accommodations made to ensure experimental integrity (Decker et al. 2000). The other two evaluations were done in the context of WPRS (Dickinson et al. 1999, 2002; Black et al. 2003). In this section, we briefly review the design and findings of these studies.

New Jersey UI Reemployment Experiment

Enrollment into the New Jersey UI Reemployment Experiment was done between July 1986 and June 1987 (Corson et al. 1989). The sampling frame for random assignment was set to target the evaluation to dislocated workers claiming UI benefits. Characteristics screens were set to construct the sampling frame.

These conditions required that a claimant must receive a first UI payment and that payment must be within five weeks of applying for benefits, must be at least 25 years of age, must have worked for the pre-UI claim employer for at least three years, may not be on standby awaiting return to the previous job with a specific recall date, and may not be a union hiring hall member.

The first three of these eligibility conditions permitted the offer of an intervention early in the jobless spell; the second two ensured that subjects of the experiment were well-established labor force members separated from a long job attachment; the last two conditions pro-

vided the potential for interventions to affect job search plans. Claimants who are awaiting recall to their prior job and members of union hiring halls are not required by the UI system to engage in active job search.

Random assignment sent 2,385 claimants to the control group and 8,675 to one of three treatment groups. All three treatments included JSA, the first being JSA alone. The second treatment added job training to JSA.[5] The third treatment added a cash reemployment bonus to JSA. The bonus was for reemployment within 11 weeks of the claim and was a cash payment of half the remaining UI entitlement, with the initial offer good for two weeks and then declining by 10 percent per week. The bonus was not paid if return to work was a recall, or if the job was temporary, seasonal, part time, or with a relative. For all three treatments, at five weeks into the claim all were given JSA orientation, skills and aptitude testing, JSA workshop, and an assessment or counseling interview.

During the benefit year, the impacts on weeks of UI benefit receipt were –0.47, –0.48, and –0.97 for the three treatments, respectively. All of these impacts were estimated with statistical significance. The cumulative impacts on weeks of UI benefit receipt over the six years after the initial benefit claim were –0.76, –0.93, and –1.72 for the three treatments, respectively, with the impact from the third treatment estimated with statistical significance (Corson and Haimson 1996).

The New Jersey UI Reemployment Experiment demonstrated that JSA targeted to claimants likely to be long-term unemployed had the same cost-effective impact as that found for other groups of UI claimants—about a half-week shorter UI receipt. The encouraging results for the bonus treatment led the U.S. Department of Labor to further investigate the ideal design for a reemployment bonus offer (Decker and O'Leary 1995).

Job Search Assistance Experiment

The Emergency Unemployment Compensation Act of 1991 authorized the U.S. Department of Labor to conduct the "Job Search Assistance Experiment." The experiment was designed to evaluate whether providing early JSA to claimants identified by statistical models as likely to exhaust their UI benefit entitlements would be cost effective

(Decker et al. 2000). During the planning stages of the evaluation to be run in the District of Columbia and Florida, federal legislation leapfrogged public policy analysis.

In 1993 President Clinton signed Public Law 103-152, which required state employment security agencies to establish and use a system of profiling all new claimants for regular UI benefits. The Worker Profiling and Reemployment Services (WPRS) system was intended to identify UI claimants most likely to exhaust their regular benefits so that they may be provided early reemployment services to make a faster transition to new employment.

The WPRS established a two-stage process. First, UI recipients who are expecting recall or who are members of a union hall are dropped. These groups are excluded because they are not expected to undertake an active independent job search. Second, remaining UI recipients are ranked by their likelihood of exhausting regular unemployment insurance benefits. Beneficiaries are then referred to early reemployment services in order of their ranking until the capacity of local agencies to serve them is exhausted. The early assistance is comprised of at least eight hours of job search assistance, which usually includes an orientation to self-help facilities available at the public labor exchange and a JSW.

The JSA experiment proceeded with enrollment in Florida between March 1995 and March 1996 in 10 sites around the state where regular WPRS operations were temporarily delayed. Random assignment in Florida involved 8,071 claimants. In the District of Columbia, the experiment counted as the federal district's WPRS implementation. Random-assignment enrollment to the JSA experiment was done in all public labor exchange offices throughout the District between June 1995 and June 1996, and involved 12,042 claimants.

The JSA experiment established an eligible pool of claimants using a two-stage process: exclude job attached and union hiring hall members, then evaluate the probability of exhausting UI entitlement and target those with highest probabilities for the evaluation. These claimants were randomly assigned to control or one of three treatments. The treatments were:

1) Structured job search assistance (SJSA): orientation, testing, JSW, one-on-one assessment interview. Failure to participate

could result in denial of UI benefits. Two additional visits with staff to report job search progress.

2) Individualized job search assistance (IJSA): orientation and one-on-one assessment interview. Individual plan developed which may include additional mandatory services.

3) Individualized job search assistance with training (IJSA+): identical to IJSA plus a coordinated effort with Economic Dislocation and Worker Adjustment Assistance Act (EDWAA) staff to enroll the customer in training.

The impacts of the three treatments on weeks of UI compensation in the benefit year in D.C. were –1.13, –0.47, and –0.61, respectively; all estimated with statistical significance. Estimates of the same parameters in Florida were –0.41, –0.59, and –0.52, all of which were statistically significant. Both evaluations indicated that reemployment occurred at wage rates similar to prior levels. The treatments had generally positive and significant effects on earnings in DC, but no impact on participant earnings in Florida.

Structured JSA emerged as the most cost-effective intervention examined. The authors of the evaluation report attributed the generally larger impacts observed in DC to stricter enforcement of JSA participation requirements. They recommend making particular JSA services mandatory and maintaining clear linkages between UI and ES in the new one-stop environment under the Workforce Investment Act (WIA).

Evaluation of Worker Profiling and Reemployment Services

The first national evaluation of WPRS was based on data from two sources: surveys in 1996 and 1997 of administrators in all states about the implementation and operations of their WPRS systems, and claimant-level data from a sample of states (Dickinson et al. 1999, 2002).

Surveys were administered to officials in all states responsible for UI, ES, and EDWAA programs, and state WPRS operations. These surveys found that "by and large, states have met the legislated requirements for implementing WPRS systems and have generally followed ETA guidance as well. Most of the major components of a WPRS system are in place in all states" (Dickinson et al. 1999. pp. II-36). Furthermore, it was found that over time states have refined WPRS systems

by adding variables in statistical referral models and by increasing the timeliness of referrals to services.

For the claimant level data, states were chosen to represent variation in the intensity of reemployment services provided under WPRS. The evaluation was performed using data drawn in six states: Connecticut, Illinois, Kentucky, Maine, New Jersey, and South Carolina.[6] For each of these states, data were compiled from administrative records on all UI claimants starting new benefit years between July 1995 and December 1996 who were eligible for referral to mandatory WPRS JSA. That is, those with either a definite recall date or union hiring hall membership were removed from the sampling frame. The combined samples included 92,401 profiled and referred claimants, and 295,920 claimants who were profiled but not referred to WPRS JSA.

The quasi-experimental evaluation of WPRS impacts in each state contrasted those profiled and referred to WPRS JSA against those profiled but not referred. The mean impact estimate for each of the six states on weeks of UI benefits drawn is reported in Table 5.7. These results suggest that WPRS modestly shortened the duration of UI benefit receipt in five of the states examined. The impact estimates were statistically significant in all states except South Carolina, where the impact was not significantly different from zero. The largest impact was –0.98 weeks in Maine, with the other impacts ranging from –0.21 to –0.41 weeks of UI benefits. Furthermore, in the states studied, those referred to mandatory WPRS had reemployment earnings on a par with those profiled but not referred to services.

Evaluation of the WPRS in Kentucky

While Kentucky was included among the states studied in the national evaluation of WPRS, an independent assessment of WPRS in Kentucky based on an experimental design arrived at a much different conclusion. The profiling model used in Kentucky was developed by economists at the Center for Business and Economic Research at the University of Kentucky (Berger et al. 1997). In working with the Kentucky Department for Employment Services on the WPRS system, the economists advocated a methodology for assignment to WPRS, which provided ready data for an experimental evaluation of WPRS effectiveness.

Kentucky divides the predicted UI exhaustion distribution into 20 groups spanning 5 percentile points each. Every week the local WPRS capacity is hit within one of the 20 groups. That group is referred to as a profiling tie group (PTG). In Kentucky, profiled WPRS customers within PTGs are randomly assigned to WPRS, or not. This is viewed as an appropriate rule for referral to WPRS from a group of UI claimants having scores that are not statistically significantly different. It also provides the basis for evaluation of WPRS based on random trials.

From the PTGs, experimental and control groups were formed by the random trials to conduct an evaluation of the WPRS in Kentucky (Black et al. 2003). Data were collected at the very beginning of WPRS implementation in Kentucky from October 1994 through June 1996. The PTGs yielded a total sample of 1,981 claimants, with 1,236 of these assigned to mandatory WPRS JSA. Compared to the total population of 48,002 profiled and referred Kentucky claimants in that period, means of observable characteristics (age, schooling, gender, race, prior earnings, weekly benefit amount) for the experimental treatment group were not statistically significantly different from those in the control group.

The impact estimates for WPRS in Kentucky were dramatic. On three outcomes of interest, the estimated impacts were: –2.2 weeks of UI, –$143 UI benefits, and a $1,054 increase in earnings during the UI benefit year. The difference in these estimates from the national WPRS evaluation were most likely due to the fact that Black et al. (2003) essentially confined their contrasts within PTGs, thereby achieving a closer counterfactual. Dickinson et al. (1999, 2002) compared those assigned to WPRS who had the highest probability of benefit exhaustion against all those profiled but not referred, including many with very low exhaustion probabilities. As a result, the comparison group in the national evaluation was likely to have a shorter mean benefit duration than program participants, even in the absence of WPRS services.

The extraordinary foresight of the Kentucky Department of Employment Services to include randomization in assignment to WPRS should be a model for all state and local employment service delivery agencies. In setting up WPRS administrative rules, the Kentucky agency realized the value of evaluation research and used that orientation to help resolve the resource allocation problem. When resources are limited, randomization in program assignment can always be

Table 5.7 Studies on the Effectiveness of Targeted Job Search Assistance

Author/title	Design	Sample	Findings
Corson et al. (1989) *New Jersey Unemployment Insurance Reemployment Demonstration Project*	T1: JSA T2: JSA plus training or relocation assistance T3: JSA plus a cash bonus C: Eligibility: first UI payment, age, tenure, temporary layoffs, union	New Jersey July 1986 to June 1987 T: 8,675 C: 2,385	T1: –0.47** weeks of UI T2: –0.48** weeks of UI T3: –0.97** weeks of UI 6 Year T1: –0.76 weeks of UI 6 Year T2: –0.93 weeks of UI 6 Year T3: –1.72** weeks of UI
Decker et al. (2000) *Assisting Unemployment Insurance Claimants: The Long-Term Impact of the Job Search Assistance Demonstration*	T1: Structured JSA T2: Individualized JSA T3: T2 plus training C: Not on standby or a union hiring hall member, and predicted likely to exhaust UI entitlement.	DC and Florida DC: June 1995 to June 1996 8,071 claimants FL: March 1995 to March 1996 12,042 claimants	DC T1: –1.13** weeks of UI DC T2: –0.47** weeks of UI DC T3: –0.61** weeks of UI FL T1: –0.41** weeks of UI FL T2: –0.59** weeks of UI FL T3: –0.52** weeks of UI

Dickinson et al. (1999) *Evaluation of Worker Profiling and Reemployment Services: Final Report*	P: WPRS profiled and referred to early JSA. C: Profiled but not referred (not on standby or a union hiring hall member)	CT, IL, KY, ME, NJ, SC July 1995 and December 1996. P: 92,401 C: 295,920	CT: –0.25** weeks of UI IL: –0.41** weeks of UI KY: –0.21* weeks of UI ME: –0.98** weeks of UI NJ: –0.29** weeks of UI SC: 0.02 weeks of UI
Black et al. (2001) *Is the Threat of Reemployment Services More Effective than the Services Themselves? Experimental Evidence from the UI System*	T: WPRS profiled and referred to early JSA. reemployment services C: Profiled and in the same predicted UI exhaustion cohort as T, but not referred to JSA.	Kentucky October 1994 to June 1996 T: 1,236 C: 745	In the benefit year T: –2.2 weeks of UI, T: –$143 UI benefits T: $1,054 earnings

NOTE: T: experimental treatment group; P: participant group; C: experimental control group or comparison group; JSW: job search workshop.

* Statistically significant at the 90 percent confidence level in a two-tailed test; ** statistically significant at the 95 percent confidence level in a two-tailed test.

viewed as an equitable mechanism. It has the added benefit of providing for very strong evaluation evidence.

SUMMARY AND CONCLUSIONS

The ES is the public labor exchange in the United States. Its main functions are job brokering and administration of the work test for UI claimants. The work test requires UI claimants to make an active search for a job, which may involve use of labor exchange services such as assessment services, job search assistance, job interview referrals, and job training referrals. As a job broker, the ES serves both sides of the job market: job seekers looking for work and employers looking to hire.

The job seekers served by the ES are similar to the universe of unemployed in terms of gender and race. However, compared to their share of all unemployed, youth are a smaller share of ES customers, while the less educated are a greater share of job-seeking customers. Among those registered with the ES, job seekers not eligible for UI tend to use ES services more than UI beneficiaries.

Employer services include public listing of job vacancies and screening and referral of job candidates. Among U.S. employers, three industry groups tend to have larger shares of job listings than employment: 1) agriculture, forestry and fisheries; 2) services; and 3) public administration. Public administration jobs are listed at a high rate because of government requirements for publicly posting job vacancies. High listing rates for agriculture and services may be partly explained by high employee turnover rates, but much of the difference across industries may be attributable to the occupational mix of employment within industries. Job listings span the range of occupations; however, the ES fill rates differ across occupations. The ES was successful in filling more than 40 percent of job vacancy listings in three occupational groups: domestic services, processing, and materials handling.

Comparison group design evaluations of ES activities have focused on three topics: 1) job interview referrals; 2) job search assistance; 3) and targeted job search assistance.[7] Each of the studies reviewed in this chapter used a distinct research design, and some satisfied higher methodological standards than others. Impact estimates differ across

the studies because of methodology and also because the samples and time frames for analysis differed. Nonetheless, each of the studies reviewed adds to our understanding of labor exchange services in the United States; taken together, evidence from these studies has helped shape the direction of public labor exchange policy. Research has guided development of programs for dislocated workers, targeted job search assistance, and institutions for coordination of services, such as WPRS, establishment of one-stop career centers, and state ERI programs as part of the ES administered UI work test.

Following is a list of key findings from ES evaluation studies:

- The first national evaluation of the ES in the United States found that job referrals are most effective for women and are also effective for men over 45 years of age, and men in urban areas—evidence for services to middle-aged dislocated workers (Johnson et al. 1983; Johnson, Dickinson, and West 1985).

- A study of ES effectiveness for dislocated workers in Pennsylvania found JSA to be most effective early in a spell of joblessness, and that ES job referrals act as a back stop once job seekers exhaust other avenues of search—evidence for early JSA intervention (Katz 1991).

- An evaluation in Washington and Oregon found ES job placements most effective for those with a strong record of job attachment, providing evidence for JSA as an intervention for dislocated workers (Jacobson and Petta 2000).

- Evaluation studies in South Carolina and Maryland found that a stronger UI work test achieved by requiring reporting of job search contacts and validation of contacts through cooperation between UI and ES leads to significantly shorter periods of compensated joblessness, providing evidence for the importance of interagency cooperation (Corson, Long, and Nicholson 1985; Klepinger et al. 1998). Such cooperation can be facilitated in the one-stop career centers required by WIA in all local areas.

- A field experiment in Washington found that eliminating both continued claim filing and the work test leads to dramatically longer spells of compensated joblessness, providing further evidence of the importance of UI and ES cooperation in requiring and monitoring job search activity (Johnson and Klepinger 1991; 1994).

- Evidence from evaluations in Maryland, Washington, DC, and Florida demonstrated that standardized ERI and JSW are inexpensive to administer and have a sizeable effect on reducing periods of compensated joblessness—evidence in support of WPRS and state-adopted ERI programs (Klepinger et al. 1998; Johnson and Klepinger 1991; Decker et al. 2000).[8]
- Evidence from the New Jersey UI Reemployment Experiment showed that JSA targeted to dislocated workers at risk of long-term employment can be a cost-effective intervention and can be very simple and structured. These results led directly to WPRS implementation (Corson et al. 1989).
- Statistical targeting of JSA to those at risk of long-term joblessness tested in DC and Florida through field experiments, providing further evidence supporting the cost effectiveness of targeted JSA (Decker et al. 2000).
- Recent evaluations of WPRS indicated shorter jobless duration for program participants. An evaluation of WPRS in Kentucky, applying an experimental design, found that WPRS shortens UI duration by more than two weeks (Dickinson et al. 1999; Black et al. 2003).

All studies evaluating the effectiveness of ES interventions consistently report very low costs per customer served by the public labor exchange. This fact is key to the cost-effectiveness of ES interventions. Even services resulting in a modest reduction in jobless duration show a significant return on public investment when costs are low. State and local ES agencies should keep clear and reliable cost records to support effective management, administration, and evaluation.

Legislation authorizing employment and training initiatives nearly always include both a requirement for program evaluation and a sunset clause (O'Leary and Straits 2003). Employment policy makers at all levels of government have an interest in knowing "what works." Research evaluating the ES has helped to affirm some ideas and discard others. Public employment agencies benefit from evaluation research and would be wise to keep such activity central to their operations. Focusing on results can improve professionalism among the staff and increase customer satisfaction. The case of Kentucky using research principles to set administrative rules in WPRS demonstrates exemplary foresight.

A recent U.S. General Accounting Office (2003) report identified the ES as the employment and training program serving the largest number of customers. In fiscal year 2002, the ES served more than 19 million customers, a total more than seven times the next largest program. In that same year, the ES budget ranked eighth among federally funded employment and training programs. The evaluation studies reviewed in this chapter suggest that many services of the ES are cost effective; however, numerous other activities of the public labor exchange remain to be studied.

The main evaluations to date have examined interventions directed to job seekers. Policy and management of the public labor exchange in the United States would benefit from research into the effectiveness of services provided to employers as well. A variety of in-person services provided by the ES have been found to be cost effective; however, public labor exchange services are becoming increasingly automated. While these services have received a steadily rising share of public labor exchange funding, the effectiveness of automated and self-serve assistance provided by the ES is not well known and should be evaluated. Improved data systems for tracking customers and services would greatly facilitate proper evaluation of both employer and automated services.

Evaluation research over the past 20 years on ES activities has contributed greatly to the direction of public employment policy. It is now standard practice for the Employment and Training Administration of the U.S. Department of Labor to cite evaluation research findings when providing policy guidance to states (DeRocco 2002).

Notes

I thank David Balducchi, John Palmer, Helen Parker and Jeffrey Smith for valuable comments on an earlier version. Opinions expressed are those of neither the W.E. Upjohn Institute nor the U.S. Department of Labor, but are my own. Errors and omissions are mine as well.

1. Excellent previous summaries of ES evaluation research have been provided by Jacobson (1991, 1995); Kulik (1995); Meyer (1995); Balducchi, Johnson, and Gritz (1997); Fay and Lippoldt (1999); Grubb, Benes, and Lippoldt (2000); and Thuy, Hansen and Price (2001).
2. Heckman, LaLonde, and Smith (1999) enumerate the assumptions implicit in such a view of random assignment field experiments as a means for model-free impact estimation.

3. A Hawthorne effect is the initial improvement in a process of production caused by the obtrusive observation of that process. The effect was first noticed in the Hawthorne plant of the Western Electric Company during studies of workplace behavior in the 1920s and 1930s. Production increased not as a consequence of actual changes in working conditions introduced by the plant's management, but because management demonstrated interest in such improvements. A recent reexamination of the Hawthorne data has called into question whether such an effect actually occurred during the original studies (Jones 1992).

4. This discussion of impact estimation and most of the studies reviewed here focus on partial equilibrium effects of interventions. That is, they assume away any external validity issues. Among external validity issues, entry and displacement effects must clearly be accounted for in estimating general equilibrium effects of interventions. Some ES evaluations have directly accounted for such considerations (Davidson and Woodbury 2000).

5. A relocation allowance was also available in treatment 2, but it was rarely used.

6. Data from 6 additional states were deemed inadequate for evaluation. Samples were originally drawn in 12 states. "Two of these 12 states made errors in implementing their profiling procedures. One inadvertently matched the wrong profiling score to individual claimants' records; the other incorrectly identified which claimants had the highest scores. Further, in three additional states we found that a substantial number of local offices did not systematically refer claimants with the highest scores to services. None of these states were aware of their implementation problems" (Dickinson, Decker, and Kreutzer 2002, p. 65).

7. Two early studies evaluated the effectiveness of counseling provided by the ES (Benus et al. 1977 and Johnson et al. 1981). Both studies found "no significant impact of counseling on duration of unemployment, earnings or job satisfaction" (Balducchi, Johnson, and Gritz 1997, p. 485).

8. In an interstate study of UI recipiency Vroman (2002, p. ii) finds that states with established ERI programs have shorter durations of compensated unemployment. On the technical support Web site for the U.S. Department of Labor, Employment and Training Administration, links to ERI programs in four states—Florida, Michigan, Tennessee, West Virgina—are provided under the heading "Best practices." <http://www.itsc.state.md.us/Best_ Practices/Eligibility_Review_ Program.htm> (Accessed: July 9, 2003) The states of Georgia and Missouri also operate ERI programs.

References

Balducchi, David E., Terry R. Johnson, and R. Mark Gritz. 1997. "The Role of the Employment Service." In *Unemployment Insurance in the United States: Analysis of Policy Issues,* Christopher J. O'Leary and Stephen A. Wandner, eds. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 457–503.

Benus, Jacob, Arden Hall, Patty Gwartney-Gibbs, Marilyn Coon, Caren Cole, Diane Leeds, and Doug Brent. 1977. "The Effectiveness of Counseling in the U.S. Employment Service: A Pilot Study." Report prepared by Stanford Research Institute (SRI) under contract no. 20-06-75-48 for the Employment and Training Administration, U.S. Department of Labor, August.

Berger, Mark C., Dan A. Black, Amitabh Chandra, and Steven N. Allen. 1997. "Profiling Workers for Unemployment Insurance in Kentucky." *The Kentucky Journal of Business and Economics* 16: 1–18.

Black, Dan, Jeffrey Smith, Mark Berger, and Brett Noel. 2003. "Is the Threat of Reemployment Services More Effective than the Services Themselves? Experimental Evidence from the UI System." *American Economic Review* 93(4): 1317–1327.

Blaustein, Saul J., Christopher J. O'Leary, and Stephen A. Wandner. 1997. "Policy Issues." In *Unemployment Insurance in the United States: Analysis of Policy Issues,* Christopher J. O'Leary and Stephen A. Wandner, eds. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 1–49.

Corson, Walter, Paul T. Decker, Sherri M. Dunstan, Anne R. Gordon, Patricia Anderson, and John Homrighausen. 1989. "New Jersey Unemployment Insurance Reemployment Demonstration Project." Unemployment Insurance Occasional Paper No. 89-3. Washington, DC: U.S. Department of Labor, Employment and Training Administration.

Corson, Walter and Joshua Haimson. 1996. "New Jersey Unemployment Insurance Reemployment Demonstration Project: Six Year Follow-up and Summary Report Revised Edition." Unemployment Insurance Occasional Paper No. 96-2. Washington, DC: U.S. Department of Labor, Employment and Training Administration.

Corson, Walter, David Long, and Walter Nicholson. 1985. "Evaluation of the Charleston Claimant Placement and Work Test Demonstration." Unemployment Insurance Occasional Paper No. 85-2. Washington, DC: U.S. Department of Labor, Employment and Training Administration.

Davidson, Carl, and Stephen A. Woodbury. 1993. "The Displacement Effect of Reemployment Bonus Programs." *Journal of Labor Economics* 11(4): 575–605.

———. 2000. "Crowding-Out Effects of the Public Labor Exchange in Washington State." In *Measuring the Effect of Public Labor Exchange (PLX) Referrals and Placements in Washington and Oregon,* Jacobson, Louis, and Ian Petta, eds. OWS Occasional Paper 2000-06. Washington, DC: Office of Workforce Security, Employment and Training Administration, U.S. Department of Labor.

Decker, Paul T. 1997. "Worker Incentives and Disincentives." In *Unemployment Insurance in the United States: Analysis of Policy Issues,* Christopher J. O'Leary and Stephen A. Wandner, eds. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 285–315.

Decker, Paul T., and Christopher J. O'Leary. 1995. "Evaluating Pooled Evidence from the Reemployment Bonus Experiments." *Journal of Human Resources*, 30(3): 534–550.

Decker, Paul T., Robert B. Olson, Lance Freeman, and Daniel H. Klepinger. 2000. "Assisting Unemployment Insurance Claimants: The Long-Term Impact of the Job Search Assistance Demonstration." OWS Occasional Paper 2000-02. Washington, DC: U.S. Department of Labor, Office of Workforce Security, Employment and Training Administration.

DeRocco, Emily Stover. 2002. "Training and Employment Guidance Letter No. 3-02: Attachment A: Activities and Resources for Improving Reemployment Services." Washington, DC: U.S. Department of Labor, Employment and Training Administration.

Dickinson, Katherine P., Paul T. Decker, Suzanne D. Kreutzer, and Richard W. West. 1999. "Evaluation of Worker Profiling and Reemployment Services: Final Report." Research and Evaluation Report Series 99-D. Washington, DC: U.S. Department of Labor, Employment and Training Administration, Office of Policy and Research.

Dickinson, Katherine P., Paul T. Decker, and Suzanne D. Kreutzer. 2002. "Evaluation of WPRS Systems." In *Targeting Employment Services*, Randall W. Eberts, Christopher J. O'Leary, and Stephen A. Wandner, eds. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, pp. 61–81.

Fay, Robert, and Douglas Lippoldt. 1999. *The Public Employment Service in the United States.* Paris: OECD.

Grubb, David, Stanislav Benes, and Douglas Lippoldt, eds. 2000. *Labour Market Policies and the Public Employment Service.* Paris: Organisation for Economic Co-operation and Development.

Heckman, James J. 1976. "The Common Structure of Statistical Models of Truncation, Sample Selection, and Limited Dependent Variables and a Simple Estimator for Such Models." *Annals of Economic and Social Measurement* 5(4): 475–492.

Heckman, James J., Neil Hohmann, and Jeffrey Smith, with Michael Khoo. 2000. "Substitution and Dropout Bias in Social Experiments: A Study of an Influential Social Experiment." *Quarterly Journal of Economics* CXV(2): 651–694.

Heckman, James J., Robert J. LaLonde and Jeffrey A. Smith. 1999. "The Economics and Econometrics of Active Labor Market Programs." In *Handbook of Labor Economics, Volume 3A*, Orley Ashenfelter and David Card, eds. Amsterdam: Elsevier, pp. 1865—2097.

Holzer, Harry. 1998. "Search Methods Used by Employers and Employees: A Survey." Rockville, MD: Westat, Inc.

Jacobson, Louis. 1991. "Congressional Testimony on the Effectiveness of the Employment Service in Aiding UI Claimants." Staff Working Paper 91-08. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

———. 1995. "The Effectiveness of the U.S. Employment Service." In *Advisory Council on Unemployment Compensation: Background Papers, Volume II*. Washington, DC: Advisory Council on Unemployment Compensation, pp. V-1 to V-53.

Jacobson, Louis, and Ian Petta. 2000. "Measuring the Effect of Public Labor Exchange (PLX) Referrals and Placements in Washington and Oregon." OWS Occasional Paper 2000-06. Washington, DC: U.S. Department of Labor, Office of Workforce Security, Employment and Training Administration.

Johnson, Terry R., Katherine P. Dickinson, and Richard W. West. 1985. "An Evaluation of the Impact of ES Referrals on Applicant Earnings." *The Journal of Human Resources*, XX (1): 117–137.

Johnson, Terry R., Katherine P. Dickinson, Richard W. West, Susan E. McNicoll, Jennifer M. Pfiester, Alex L. Stagner, and Betty J. Harris. 1983. "A National Evaluation of the Impact of the United States Employment Service." Final report prepared by SRI International under Contract No. 23-06-79-04 for the Employment and Training Administration, U.S. Department of Labor, June.

Johnson, Terry R., and Daniel H. Klepinger. 1991. "Evaluation of the Impacts of the Washington Alternative Work Search Experiment." Unemployment Insurance Occasional Paper 91-4. Washington, DC: U.S. Department of Labor, Employment and Training Administration.

———. 1994. "Experimental Evidence on Unemployment Insurance Work-Search Policies." *The Journal of Human Resources*, 29(3): 695–717.

Johnson, Terry R., C. Eric Munson, Samuel Weiner, Asi Cohen, Marilyn L. Coon, and Susan E. McNicoll. 1981. "Findings from a Survey of the U.S. Employment Service Counseling Program." Menlo Park, CA: SRI International, March.

Jones, Stephen R.G. 1992. "Was There a Hawthorne Effect?" *American Journal of Sociology.* 98(3): 451–468.

Katz, Arnold. 1991. "The Length of Joblessness and the Employment Service with Special Reference to Philadelphia and Pittsburgh, Pennsylvania, 1979–1987." In *The Potential Effectiveness of the Employment Service in Serving Dislocated Workers under EDWAA: Evidence from the 1980s,* Carol J. Romero, Donald Cox, and Arnold Katz, eds. Washington, DC: National Commission for Employment Policy, pp. 7–47.

Klepinger, Daniel H., Terry R. Johnson, Jutta. M. Joesch, and Jacob M. Benus. 1998. "Evaluation of the Maryland Unemployment Insurance Work Search Demonstration." Unemployment Insurance Occasional Paper No. 98-2. Washington, DC: U.S. Department of Labor, Employment and Training Administration.

Kulik, Jane. 1995. "The U.S. Employment Service: A Review of Evidence Concerning Its Operations and Effectiveness," in *Advisory Council on Unemployment Compensation: Background Papers, Volume II.* Washington, DC: Advisory Council on Unemployment Compensation, pp. U-1 to U-62.

Martin, John P., and David Grubb. 2001. "What Works and for Whom?: A Review of OECD Countries' Experiences with Active Labor Market Policies." Office of Labour Market Policy Evaluation Working Paper 2001:14. Paris: Organisation for Economic Co-operation and Development.

Meyer, Bruce D. 1995. "Lessons from the U.S. Unemployment Insurance Experiments." *The Journal of Economic Literature* 33(1): 91–131.

O'Leary, Christopher J., and Robert A. Straits. 2003. "Intergovernmental Relations in Employment Policy: The United States Experience." In *Labour Market Policy and Federalism: A Comparative Perspective*, Alain Noël, ed. Montreal and Kingston: McGill-Queen's University Press.

Schwanse, Peter. 2001. "Summary and Conclusions by the Rapporteur." In *Labour Market Policies and the Public Employment Service*, David Grubb, Stanislav Benes, and Douglas Lippoldt, eds. Paris: Organisation for Economic Co-operation and Development, pp. 17–33.

Thuy, Phan, Ellen Hansen, and David Price. 2001. *The Public Employment Service in a Changing Labour Market.* Geneva: International Labour Office.

U.S. Employment Service. 2001. *Employment Service Program Highlights: Program Year 1999 Program Report Data.* Washington DC: U.S. Department of Labor, Employment and Training Administration, Office of Workforce Security.

U.S. General Accounting Office. 2003. *Multiple Employment and Training Programs: Funding and Performance Measures for Major Programs.* GAO-03-589. Washington DC: U.S. General Accounting Office.

Vroman, Wayne. 2002. "Low Benefit Recipiency in State Unemployment Insurance Programs." Office of Workforce Security Occasional Paper 2002-02. Washington, DC: Department of Labor, Employment and Training Administration, UI Service.

Wandner, Stephen A., ed. 1994. "The Worker Profiling and Reemployment Services System: Legislation, Implementation Process and Research Findings." Unemployment Insurance Occasional Paper No. 94-4. Washington DC: U.S. Department of Labor, Employment and Training Administration, UI Service.

Labor Exchange Policy in the United States

David E. Balducchi
Randall W. Eberts
Christopher J. O'Leary
Editors

2004

W.E. Upjohn Institute for Employment Research
Kalamazoo, Michigan

The facts presented in this study and the observations and viewpoints expressed are the sole responsibility of the authors. They do not necessarily represent positions of the W.E. Upjohn Institute for Employment Research.