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Christopher J. O'Leary

W.E. Upjohn Institute, oleary@upjohn.org

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Profiling for Reemployment Bonus Offers

During the 1980s, field experiments were conducted in four states to evaluate the potential of using cash bonus offers to induce early return to work by unemployment insurance (UI) claimants. The first experiment was initiated by the Illinois Employment Security Department and was designed with the assistance of the W.E. Upjohn Institute for Employment Research. It yielded encouraging results, which led the U.S. Department of Labor to include a somewhat different bonus treatment in a New Jersey reemployment experiment.

Although the evidence from New Jersey was not positive, the Labor Department sponsored multi-treatment experiments in Pennsylvania and Washington in an attempt to refine the findings from Illinois. Funding for the Pennsylvania and Washington experiments came from money that Congress earmarked in 1987 to investigate methods for promoting reemployment of workers dislocated by structural change in the economy. Results from these experiments did not support the idea that the reemployment bonus could be a cost-effective way to promote rapid reemployment, and policy momentum for this bonus idea faded.

In 1994 and 1995, new mechanisms for early identification of UI beneficiaries who are likely to have long jobless spells were implemented in all states as a result of federal law. These mechanisms, called profiling models, are currently being used by states as a means to target early reemployment assistance to dislocated workers. They offer a natural means for also targeting reemployment bonus offers. This article summarizes recent research findings which suggest that such targeting may appreciably improve the cost-effectiveness of the bonus.

The Bonus Experiments

The first reemployment bonus experiment, conducted in Illinois during 1984-85, offered a \$500 reemployment bonus to UI claimants for returning to work within 11 weeks and staying employed at least 4 months. The bonus reduced duration of UI-compensated unemployment by more than a week and saved much more in UI benefit payments than it cost for bonus payments and administration of the bonus offer (Woodbury and Spiegelman 1987).

The reemployment bonus offer in the 1985-86 New Jersey experiment also had a 4-month reemployment requirement, but it had a 12-week qualification period and a bonus amount which decreased as the duration of insured unemployment lengthened. The New Jersey experiment raised questions about the benefits to the UI system from such a bonus offer (Corson et al. 1989).

The states of Pennsylvania and Washington each conducted separate reemployment bonus experiments in 1988-89 involving a total of 11 different treatments (Table 1). These treatments were intended to supplement the information from the Illinois experiment by identifying which bonus amount and qualification period was most effective. Among the five treatments in Pennsylvania and six treatments in Washington, only four were cost-effective from

the perspective of the UI system (Decker and O'Leary 1995).

Table 1 **Impacts on UI payments of
Reemployment Bonus Offers with
and without Profiling (\$ paid per
claimant)**

Treatment (bonus amt., qualif. period)	Full sample	Top 50 percent	Top 25 percent
Pennsylvania			
Low bonus, short period	-103**	35	182
Low bonus, long period	-69**	-211*	-159
High bonus, short period	-99*	5	-99
High bonus, long period	-130**	-261**	-199
Declining bonus	-61	-292**	-231
Washington			
Low bonus, short period	22	-47	-78
Low bonus, long period	-112**	-187**	-142
Medium bonus, short period	-29	-121	-143
Medium bonus, long period	-44	-33	12
High bonus, short period	-117**	-126	-135
High bonus, long period	-136**	-228**	-280**

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

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

Pennsylvania bonus amount: low = 3 x WBA (weekly benefit amount); high = 6 x WBA; declining = half the remaining UI entitlement, with the initial offer good for 2 weeks and then declining by 10 percent per week.

Pennsylvania qualification period: short = 6 weeks; long = 12 weeks.

Washington bonus amount: low = 2 x WBA; medium = 4 x WBA; high = 6 x WBA.

Washington qualification period: short = 0.2 x (potential UI duration) + 1 week; long = 0.4 x (potential UI duration) + 1 week.

How Profiling Works

Profiling now operates in all states as part of the Worker Profiling and Reemployment

Services (WPRS) system and is a two-step process. The first step excludes UI claimants expecting recall by their previous employer and those who are members of full-referral union hiring halls. In the second step, those who are most likely to exhaust UI benefits are identified. Almost all states perform the second step using a statistical model that predicts the probability of benefit exhaustion.

In statistical profiling models, the factors used to help predict exhaustion usually include education, job tenure, change in employment in the prior industry and occupation, and the local unemployment rate. When workers open a new claim for UI benefits, their personal and labor market characteristics are entered into a profiling equation to predict their individual probability of exhausting benefits. State WPRS systems then quickly refer those with a high predicted probability to special reemployment assistance (Wandner 1997).

Profiling the Bonus

A recent study (O'Leary, Decker, and Wandner 1998) has investigated the effects of targeting reemployment bonus offers using profiling models and data from the Pennsylvania and Washington experiments. Simulations were performed using 1) the actual profiling models used in Pennsylvania and Washington since 1994 and 2) new models for each state estimated on the control group data from the experiments using approximately the same prediction factors that are currently used by the states. Target groups were defined by varying the threshold for making a bonus offer between the 10th and 90th percentile in the distribution of predicted probability of benefit exhaustion, and the effect on bonus impacts for different target groups was computed.

The findings suggest that targeting a reemployment bonus to claimants with high exhaustion probabilities can yield larger reduction in UI payments than a nontargeted bonus, but that targeting does not guarantee larger reductions. Furthermore, the use of a higher probability threshold for targeting does not necessarily translate into larger UI reductions. Tables 1 and 2 summarize these results, which are based on profiling models estimated on data from the two experiments and were somewhat stronger than, but similar in magnitude and direction to, those estimated using the actual state models. In our estimates, the lower threshold (bonus offers to the top 50 percent of beneficiaries, who are predicted as most likely to exhaust benefits) generally yielded larger impacts on payments than targeting bonus offers to the top 25 percent (Table 1). Hence, targeting with a modest probability threshold may maximize the impact of a bonus offer on UI payments.

Cost-effectiveness

Previous examination of net benefits for reemployment bonus offers found more favorable results as the perspective broadened from the UI system, to all government, to society as a whole. The net benefits to the UI system of a reemployment bonus offer are the reduction in UI benefit payments, minus the cost of bonus payments, minus any additional costs of administering the bonus. Untargeted bonus offers have generally not been found to be cost-effective from the crucial UI system perspective.

Table 2 Net Benefits to the UI System of Reemployment Bonus Offers with and without Profiling (\$ saved per claimant)

Treatment (bonus amt., qualif. period)	Full sample	Top 50 percent	Top 25 percent
Pennsylvania			
Low bonus, short period	40	-119	-265
Low bonus, long period	24	108	49
High bonus, short period	-56	-138	-42
High bonus, long period	-28	68	13
Declining bonus	23	164	106
Washington			
Low bonus, short period	-62	-2	17
Low bonus, long period	9	110	55
Medium bonus, short period	-88	6	14
Medium bonus, long period	-129	-141	-203
High bonus, short period	-76	-97	-96
High bonus, long period	-132	-94	-136

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

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

Pennsylvania bonus amount: low = 3 x WBA (weekly benefit amount); high = 6 x WBA; declining = half the remaining UI entitlement, with the initial offer good for 2 weeks and then declining by 10 percent per week.

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Some bonus designs appear to consistently yield positive net benefits when targeted to

the 50 percent group; in particular, the targeted, long-qualification-period offers in Pennsylvania are all estimated to be cost-effective (Table 2). For Washington, the treatment with the strongest cost-effective results also had a long qualification period.

Targeting bonus offers to the top 25 percent most likely to exhaust benefits yielded the same general pattern of results. However, narrowing the targeted group reduces the statistical significance of impact estimates because sample sizes decline. Such narrowing also reduces the net savings on UI payments in four out of five Pennsylvania treatments and in half of the Washington treatments.

A reemployment bonus targeted to UI claimants who are permanently separated from their prior employer and likely to exhaust their benefits is practical as a cost-effective early intervention to promote reemployment. Results from the Pennsylvania and Washington experiments suggest that a low bonus amount combined with a long qualification period targeted to the 50 percent most likely to exhaust UI benefits is the best policy action.

Caveats

Targeting with profiling models improves the appeal of the reemployment bonus program. However, two potential behavioral effects might reduce cost-effectiveness in an operational program (Meyer 1996). First, an actual bonus program could have a *displacement effect*. Displacement occurs if UI claimants offered a bonus increase their rate of reemployment at the expense of other job seekers not offered a bonus. Second, there is the risk that a bonus program could induce an *entry effect*, that is, the availability of a reemployment bonus might result in a larger proportion of unemployed job seekers filing for UI.

If the entry and displacement effects are sizable, actual program cost-effectiveness will be lowered. However, since only some UI claimants would receive the bonus offer, targeting the offers by profiling would introduce uncertainty about the offer, thereby reducing the chance of a large entry effect. Targeting should also lower the potential for displacement by reducing the share of UI claimants offered a bonus.

Suggestions for further reading

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