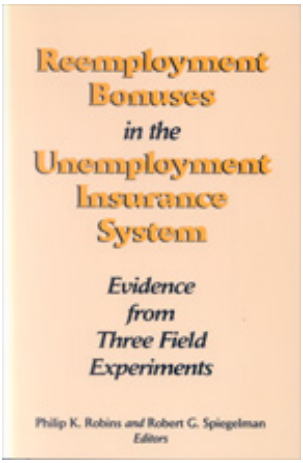
W.E. UPJOHN INSTITUTE FOR EMPLOYMENT RESEARCH

Upjohn Institute Press

Impacts on Employment and Earnings



Paul T. Decker
Mathematica Policy Research

Christopher J. O'Leary
W.E. Upjohn Institute

Stephen A. Woodbury
Michigan State University and
W.E. Upjohn Institute

Chapter 5 (pp. 151-174) in:
Reemployment Bonuses in the Unemployment Insurance System: Evidence from Three Field Experiments
Philip K. Robins, and Robert G. Spiegelman, eds.
Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2001
DOI: 10.17848/9780880994217.ch5

5
Impacts on Employment and Earnings

Paul T. Decker
Christopher J. O'Leary
and
Stephen A. Woodbury

The findings presented in the previous chapter demonstrate that the reemployment bonus offers in the Illinois, Pennsylvania, and Washington bonus experiments generally reduced unemployment insurance (UI) receipt. Presumably, the reductions in UI receipt occurred because the bonus offers induced claimants to return to work more quickly than they would have in the absence of the bonus offer. To receive a bonus, claimants not only needed to stop receiving UI, they also needed to prove that they held a job and that they held that job for a minimum period of time. We therefore expected, given the impacts on UI receipt, to also observe an increase in employment and earnings among claimants who received a bonus offer. In this chapter, we examine employment and earnings during the year following claimants' benefit applications to determine whether this impact occurred.

Although we expected the bonus offers to have positive impacts on average earnings among all claimants, the reemployment incentives generated by the bonus offers may have had potentially negative impacts on the characteristics of new jobs held by claimants who found a job. Because the UI system provides financial assistance to claimants who are looking for work, they can presumably be more selective in taking a new job than they would be in the absence of UI. Hence, UI may lead claimants to spend more time unemployed because they are searching for the best possible match between their skills and available jobs. The reemployment bonus creates an incentive to shorten search time, however, which may cause claimants to be less selective in their search, potentially resulting in a relatively less desirable match between the claimant and the job.

One way in which a less desirable job match might manifest itself is through a lower rate of earnings on the subsequent job. We therefore extend our analysis of employment and earnings to examine the rate of earnings among reemployed claimants and to test whether the bonus offers, by promoting rapid reemployment, induced claimants to accept lower-paying jobs.

Impacts of the bonus on the job match may also manifest themselves through changed rates of attachment to employers or to industries. To speed reemployment, UI claimants who received a bonus offer may have been more inclined to search for and accept jobs with new employers or in different industries. Greater employer or industry switching might imply that job-specific or industry-specific human capital possessed by claimants at their previous jobs was being abandoned to take advantage of the bonus offer. If the specific human capital was still potentially productive, the abandonment of it would represent a loss due to the reemployment bonus offer. On the other hand, if the specific human capital was no longer potentially productive, or if its potential productivity was not large enough to justify longer unemployment spells, employer and industry switching may be a benefit of the reemployment bonus offer. This would be especially true if claimants who switch employers or industries have more stable employment in the long run than if they had not switched. In this chapter we test for the effects of the bonus offers on employer and industry attachment by comparing the rates at which the treatment and control groups returned to their previous employers or industries.

DATA AND METHODOLOGY

Our analysis of the impacts of the bonus offers on employment and earnings is based on two quarterly measures drawn from UI wage records: 1) whether claimants reported earnings and 2) the amount of earnings received. The state UI wage records also contain direct data on employment for the Pennsylvania and Washington experiments. The Pennsylvania wage records report weeks of work in a quarter, and the Washington wage records report hours of work in a quarter. Using these data, we constructed an employment indicator that specifies

whether a claimant had either positive weeks of work in the quarter (Pennsylvania) or positive hours of work (Washington). Because the Illinois records contain no direct employment data, we chose to use the earnings indicator as a proxy for an employment indicator for most of our analysis, so that we could investigate employment probabilities for all three experiments.

For all three experiments, we have a full set of wage records data on claimant earnings for the three calendar quarters following the claimants' entry into the UI system.[1] We also examined data for the quarter in which claimants filed their initial UI claims. Although earnings data for this quarter partly reflect claimants' experience with pre-UI employers, random assignment implies that pre-UI earnings during this quarter should not vary significantly across treatment groups within each demonstration. Hence, any significant cross-group differences in earnings in the quarter of benefit application should be attributable to the impact of the treatment on postapplication earnings. We can also control for any remaining cross-group differences in pre-UI earnings by controlling for base period earnings in our regression estimates.

UI wage records were used because these data were available for all three experiments.[2] Although we believe that UI wage records are a useful source of earnings data, they do have some shortcomings for our analysis. One important deficiency is that they are organized by calendar quarter and thus cannot be used to isolate the impacts that occurred immediately after the benefit application date. This inflexibility may be an important constraint, because previous studies of a reemployment bonus in the New Jersey UI Reemployment Demonstration Project showed that the impact of the bonus offer occurred soon after the benefit application date (see Corson et al. 1989; Corson and Decker 1990). In the present analysis, we attempt to address this shortcoming by reporting estimates for the quarter in which claimants applied for benefits, which encompasses the period immediately after the benefit application date.

Another shortcoming is that a variety of factors may have affected the accuracy of the wage records data. For example, the wage records exclude the earnings of claimants who were employed outside the state or outside the UI-covered sectors (such as those who were self-employed). Because our analysis of earnings would include such indi-

viduals as if their earnings were zero, the impact estimates would be biased toward zero. Furthermore, the UI wage records report earnings when they are received, not when they are earned. Claimants may have received severance pay or pension payouts from their pre-UI employer after they applied for UI benefits. These payments could be misinterpreted as earnings from a post-UI job, overstating the earnings received by claimants following their benefit application date.[3]

We attempted to minimize the effect of potential shortcomings of the wage records data by excluding extreme outliers—claimants whose earnings were greater than $100,000 in any quarter of observation. This restriction was intended to exclude high values that are caused by severance payments or pension payouts. The outliers may also be caused by coding errors in the wage records. The restriction on earnings values affected the Washington data much more than the Illinois or Pennsylvania data. In Washington, 66 observations were excluded from the data set because of this earnings restriction, compared with only one observation each in Illinois and Pennsylvania.[4]

EMPLOYMENT AND EARNINGS AMONG CONTROL GROUP MEMBERS

In the absence of the reemployment bonus, the control group claimants in Washington had the highest employment rates after their initial UI claims, followed by the Pennsylvania claimants and then the Illinois claimants. Because we had no direct employment information on the Illinois claimants, we used the presence of individual earnings during a period as a proxy for employment during the period. The use of earnings as a proxy for employment allows us to calculate employment rates for each experiment (Table 5.1). The Washington control group members were employed more than the Pennsylvania control group members, who in turn were employed more than the Illinois control group members throughout the observation period. We also present the direct employment indicators for Washington and Pennsylvania in Table 5.1. They are consistent with the proxy measure in demonstrating that the Washington control group tended to have higher employment rates than the Pennsylvania control group.

Table 5.1 Mean Employment and Earnings among Control Groups[a]

	Period of observation					
		Quarter[b]			Total (all four quarters)	Sample size
	of initial UI claim	1	2	3		
Claimants with reported employment (%)						
Illinois	ND[c]	ND	ND	ND		ND
Pennsylvania	84.1	59.0	67.3	70.6		3,353
Washington	81.7	65.9	70.5	72.0		3,082
Claimants with reported earnings (%)						
Illinois	86.0	53.7	56.0	61.9		3,866
Pennsylvania	88.1	63.4	71.1	74.4		3,392
Washington	88.6	71.5	76.2	77.3		3,064
Earnings ($)[d]						
Illinois	2,446	1,231	1,676	2,070	7,422	3,866
Pennsylvania	2,648	1,711	2,357	2,606	9,322	3,392
Washington	3,057	2,613	3,120	3,269	12,059	3,064

SOURCE: State UI wage records.

[a] The sample means presented in this table are not regression adjusted.

[b] Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after the UI claim.

[c] ND = no data available.

[d] Excludes observations with earnings greater than $100,000 in any quarter.

The Washington control group members also had higher earnings than the Illinois and Pennsylvania control group members. Over the four-quarter observation period, Washington control group members earned an average of about $12,000, compared with $9,300 earned by the Pennsylvania control group members and $7,400 earned by the Illinois control group members.

Two factors help to explain the differential earnings of the control groups in the three demonstrations. First, on average, the Washington claimants were more highly paid than the Pennsylvania claimants prior to their respective layoffs, and the Pennsylvania claimants were more highly paid than the Illinois claimants (Table 2.5 in Chapter 2).[5] We

would expect that this difference in earnings would continue to exist as claimants become reemployed, since the difference in base period earnings at least partly reflects inherent differences in characteristics (such as differences in skill levels) between the claimants in the different states. Second, Washington claimants appear to have become reemployed more quickly than the Pennsylvania or Illinois claimants. As shown in Table 5.1, the rate of employment for the three quarters following the initial claim was highest for Washington claimants and lowest for Illinois claimants.[6] Since unemployed claimants received zero earnings, the relatively low employment rates for the Pennsylvania and Illinois claimants contributed to the relatively low earnings levels experienced by these claimants.

ESTIMATED IMPACTS ON EMPLOYMENT AND EARNINGS

Estimates based on data from the UI wage records provide only weak evidence that the bonus offers enhanced the employment of claimants following their initial claim. The clearest evidence of positive employment impacts can be seen for Illinois (Table 5.2). The estimated impact of the Illinois bonus offer on the probability of employment is positive in each of the four quarters of observation. The impact is largest and statistically significant in quarter 2 (the second full calendar quarter after the initial claim)—the bonus offer increased the probability of employment by 3.9 percentage points, or by 7.0 percent of the control group employment rate (56 percent) shown in Table 5.1. The finding that the Illinois experiment had the clearest and largest employment impacts is consistent with the findings on UI receipt presented in the previous chapter, which showed that the Illinois experiment had the largest impact on UI receipt.

The estimated impacts of the Pennsylvania and Washington bonus offers on employment provide no strong evidence that the bonus offers increased the probability of employment in those two states. In Pennsylvania, only about half of the estimated impacts on the probability of employment have a positive sign, and none of the impacts is significantly greater than zero. The combined impacts of the Pennsylvania

Table 5.2 Estimated Impacts of the Bonus Offers on Probability of Employment[a,b] (percentage points)

Treatment	Bonus amt./ duration	Quarter[c] of initial UI claim	1	2	3
Illinois					
IT	$500/11 weeks	0.8	1.6	3.9***	2.1
		(0.7)	(1.1)	(1.1)	(1.1)
Impact (as % of control group mean)[d]		0.9	3.0	7.0	3.4
Pennsylvania					
PT1	3 × WBA[e]/ 6 weeks	–1.2	–2.2	–1.4	–3.8***
		(1.0)	(1.5)	(1.4)	(1.4)
PT2	6 × WBA/ 6 weeks	–0.4	1.0	0.7	0.7
		(0.9)	(1.4)	(1.3)	(1.2)
PT3	3 × WBA/ 12 weeks	0.5	1.0	–0.7	–2.4**
		(0.9)	(1.3)	(1.2)	(1.1)
PT4	6 × WBA/ 12 weeks	–0.9	0.6	0.6	–0.7
		(0.8)	(1.2)	(1.1)	(1.1)
Combined treatments		–0.4	0.4	0.0	–1.4
		(0.7)	(1.0)	(0.9)	(0.9)
Impact of combined treatments (as % of control group mean)[d]		–0.5	0.6	0.0	–1.9
Washington					
WT1	2 × WBA/ (0.2 × UI duration) + 1 week	–0.9	–0.9	–2.9**	–0.7
		(0.9)	(1.2)	(1.2)	(1.1)
WT2	4 × WBA/ (0.2 × UI duration) + 1 week	–1.3	–1.5	–2.0*	–0.9
		(0.9)	(1.2)	(1.2)	(1.1)
WT3	6 × WBA/ (0.2 × UI duration) + 1 week	–0.5	0.2	–1.1	2.0
		(1.0)	(1.4)	(1.3)	(1.3)
WT4	2 × WBA/ (0.4 × UI duration) + 1 week	–0.6	0.3	–0.9	–0.4
		(0.9)	(1.2)	(1.2)	(1.1)

(continued)

Table 5.2 (continued)

Treatment	Bonus amt./ duration	Quarter[c] of initial UI claim	1	2	3
WT5	4 × WBA/ (0.4 × UI duration) + 1 week	–0.3 (0.9)	0.2 (1.2)	–0.2 (1.2)	0.1 (1.1)
WT6	6 × WBA/ (0.4 × UI duration) + 1 week	–0.7 (1.0)	1.9 (1.4)	0.6 (1.3)	1.1 (1.3)
Combined treatments		–0.7 (0.6)	–0.1 (0.9)	–0.9 (0.8)	0.0 (0.8)
Impact of combined treatments (as % of control group mean)[d]		–0.8	–0.1	–1.2	0.0

SOURCE: State UI wage records.

[a] Individuals are treated as being employed in a quarter if the wage records contain earnings data in that quarter. The estimates are based on regressions that include treatment indicators and other explanatory variables to control for claimant characteristics, UI benefit parameters, and local factors.

[b] Standard errors in parentheses. * = 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; *** = statistically significant at the 99 percent confidence level in a two-tailed test.

[c] Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after the initial UI claim.

[d] See Table 5.1.

[e] WBA = weekly UI benefit amount.

treatments demonstrate that the treatment group members had about the same probability of employment as did the control group members in each of the quarters. In Washington, the majority of the estimated impacts are negative, and none is significantly greater than zero. The combined impacts of the Washington treatments show that treatment group members and control group members had similar average earnings in each of the quarters.

The evidence on whether the bonus offers increased earnings is also mixed (Table 5.3). In Illinois, the bonus offer clearly caused a short-term increase in earnings. Over the full four-quarter observation

Table 5.3 Estimated Impacts of the Bonus Offers on Earnings[a,b] ($)

Treatment	Bonus amt./ duration	Quarter[c] of initial UI claim	1	2	3	Total, all four quarters
Illinois						
IT	$500/ 11 weeks	–6 (57)	132*** (48)	120** (49)	5 (55)	250* (148)
Impact (as % of control group mean)[d]		–0.2	10.7	7.2	0.2	3.4
Pennsylvania						
PT1	3 × WBA/ 6 weeks	–11 (100)	8 (84)	–77 (78)	–188** (82)	–269 (235)
PT2	6 × WBA/ 6 weeks	–14 (89)	113 (75)	–18 (70)	52 (73)	133 (211)
PT3	3 × WBA/ 12 weeks	105 (83)	81 (70)	–15 (65)	–5 (68)	166 (195)
PT4	6 × WBA/ 12 weeks	–28 (78)	73 (66)	77 (62)	53 (64)	175 (185)
Combined treatments		15 (63)	74 (53)	6 (50)	–2 (52)	93 (149)
Impact of combined treatments (as % of control group mean)[d]		0.6	4.3	0.2	–0.1	1.0
Washington						
WT1	2 × WBA/ (0.2 × UI duration) + 1 week	19 (91)	–213** (95)	–58 (93)	13 (93)	–239 (257)
WT2	4 × WBA/ (0.2 × UI duration) + 1 week	–25 (90)	–93 (94)	–133 (92)	110 (92)	–141 (254)

(continued)

Table 5.3 (continued)

Treatment	Bonus amt./ duration	Quarter[c] of initial UI claim	1	2	3	Total, all four quarters
WT3	6 × WBA/ (0.2 × UI duration) + 1 week	–35 (101)	23 (106)	–18 (104)	184* (104)	155 (287)
WT4	2 × WBA/ (0.4 × UI duration) + 1 week	–73 (89)	4 (93)	–132 (92)	4 (92)	–197 (253)
WT5	4 × WBA/ (0.4 × UI duration) + 1 week	–80 (90)	–82 (94)	–66 (92)	36 (92)	–193 (254)
WT6	6 × WBA/ (0.4 × UI duration) + 1 week	–124 (102)	57 (107)	165 (105)	199* (105)	296 (290)
Combined treatments		–50 (66)	–61 (69)	–55 (68)	79 (68)	–88 (187)
Impact of combined treatments (as % of control group mean)[d]		1.6	–2.3	–1.7	2.4	–0.7

SOURCE: State UI wage records.

[a] The estimates are based on regressions that include treatment indicators and other explanatory variables to control for claimant characteristics, UI benefit parameters, and local factors. We excluded observations with earnings greater than $100,000 in any quarter.

[b] Standard errors in parentheses. * = 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; *** = statistically significant at the 99 percent confidence level in a two-tailed test.

[c] Quarters, 1, 2, and 3 are the first, second, and third full calendar quarters after the initial UI claim.

[d] See Table 5.1.

[e] WBA = Weekly UI benefit amount.

period, the treatment group members earned $250, or 3.4 percent, more than control group members. This difference is statistically significant at the 90 percent confidence level. The increase in earnings occurred primarily in quarters 1 and 2. The quarterly impact estimates represent an 11 percent increase in earnings in quarter 1 and a 7 percent increase in quarter 2. Both of these quarterly estimates are significant at the 95 percent confidence level.

The magnitude and timing of the estimated earnings impacts in Illinois are consistent with the findings on UI receipt from the Illinois experiment. With respect to the magnitude of the impacts, we demonstrated in Chapter 4 (Table 4.2) that the Illinois bonus offer reduced average UI receipt by 1.04 weeks. If we use this impact to derive an expected impact on earnings based on the assumption that the 1.04-week reduction in UI receipt translates directly into a 1.04-week increase in employment, we find an expected impact on earnings of $258.[7] Our estimated impact for the full four-quarter observation period, $250, is similar to this expected impact. With respect to the timing of the impacts, the large and significant earnings impact in the second quarter after the initial UI claim implies that the bonus reduced unemployment among sample members who would have otherwise stayed unemployed into the second quarter. Hence, the Illinois bonus had at least some effect on claimants who faced substantial (up to 6 months) unemployment spells. This finding is consistent with the significant reduction in the rate of benefit exhaustion caused by the Illinois bonus offer, as demonstrated in Chapter 4.[8]

The estimates for the Pennsylvania experiment are more modest than the Illinois estimates and are not statistically significant in most cases. All but one of the Pennsylvania bonus offers (the low bonus/short qualification treatment) have a positive estimated impact on earnings over the four-quarter observation period, but none of the estimates is statistically significant. The estimated impact of all of the treatments combined was to increase earnings by an average of $93, or 1.0 percent, per claimant, but this combined effect is also not statistically significant.

Despite the lack of consistently significant findings for earnings impacts, the estimated Pennsylvania impacts are consistent with the estimated impacts of the Pennsylvania treatments on UI receipt that were discussed in Chapter 4. Specifically, the magnitude of the esti-

mated earnings impacts are similar to what one would expect based on the magnitude of the estimated UI impacts. For example, assuming that the 0.58-week reduction in UI receipt for the combined Pennsylvania treatments translates directly into a 0.58-week increase in employment, the expected impact of the combined treatments on earnings is $158 (0.58 times average pre-UI weekly earnings for the control group of $272). This expected impact is within the 95 percent confidence interval (approximately –$199 to $385) of the estimated combined treatment impact for Pennsylvania discussed above.

The comparison of the estimated UI impacts and the estimated earnings impacts demonstrates the difficulty in estimating earnings impacts for the bonus experiments. Although the Pennsylvania sample was large and the estimates relatively precise, the estimates are not precise enough to detect the modest earnings impact that would be consistent with the UI impacts. Given the standard errors in Table 5.3, the impact of the combined Pennsylvania treatments would need to be equal to about $250 per claimant to be statistically significant at the 90 percent confidence level, considerably higher than the $158 impact that is predicted based on the estimated UI impact as described above.

The Washington findings provide no evidence that the Washington bonus offers increased the earnings of claimants. Over the entire observation period, the treatment group members in Washington earned $88 less than did the control group members, as shown in Table 5.3. The estimated impacts of individual treatments on earnings were generally modest, both in each quarter and over the entire observation period, and many of these estimated impacts were negative rather than positive. The impacts of the most generous bonus offers on earnings are more positive than the impacts of the less generous bonus offers, which is consistent with the estimated impacts on UI receipt. However, none of the estimated impacts of the individual treatments on earnings is statistically significant.

The lack of consistently positive impacts on earnings of the Washington treatments is probably not surprising given that the estimated impacts of the Washington treatments on UI receipt are small, as discussed in Chapter 4. As in the case of the Pennsylvania estimates, even though the Washington sample is large and our earnings estimates are relatively precise, the estimates shown in Table 5.3 are not precise enough to detect the small earnings impacts that would be consistent

with the small estimated UI impacts. If we generated expected earnings impacts based on the estimated UI impacts, these expected impacts would fall within the 95 percent confidence intervals around the actual impact estimates. For example, using the same method as we used for Pennsylvania, we generate an expected earnings impact for the combined Washington treatments of $119.[9] This expected impact is well within the 95 percent confidence interval (approximately –$455 to $279) of the estimated combined treatment impact on earnings in Washington (the –$88 impact described in the previous paragraph). The presence of errors in the Washington data, as demonstrated by the large number of extreme outliers, also makes it difficult to use the wage records data to detect impacts on earnings.

IMPACTS ON WAGES

Claimants may respond to a reemployment bonus offer by intensifying their job search so that they find a new job quickly enough to receive the bonus. Alternatively, a claimant may attempt to speed reemployment not by intensifying the job search but by relaxing standards for acceptable job offers. That is, claimants may, in an effort to receive a bonus, accept jobs that do not quite match their skills or do not offer the wages or benefits that they would command in the absence of the bonus offer. If such an effect were to occur, it should be considered a potential cost of the bonus offer since claimants would be matched to jobs in which they are potentially less productive.

Consider the possibility that claimants sacrifice wages in order to hasten reemployment and qualify for the bonus. Such an effect would have negative long-run consequences if it led to a decrease in lifetime earnings compared to what would occur in the absence of the bonus. In this section, we attempt to determine whether the bonus offers decreased wages at reemployment. We examine the sample of all claimants who reported earnings in two consecutive calendar quarters after their initial UI claim. This approach is intended to focus our analysis on a sample of claimants who found reemployment. We used this sample of reemployed claimants to estimate the impacts of the treat-

ments on quarterly wages in the second quarter, or first full quarter, of employment after the initial UI claim.

In all three experiments, the reemployed treatment group members had quarterly wages that were similar to the earnings of reemployed control group members, suggesting that claimants who received a bonus offer did not sacrifice wages to become reemployed quickly. The estimated impacts of the combined treatments on wages based on the differences of means (model 1 in Table 5.4) are modestly positive but not statistically significant in the Pennsylvania and Washington experiments. The estimate for the Illinois experiment is negative, but it is also small and statistically insignificant.

Because the reemployed claimants are not a random sample of all claimants, the differences in wages between the reemployed treatment group members and the reemployed control group members do not necessarily provide an unbiased estimate of the effect of the bonus offers on wages. The impact estimates in model 1 of Table 5.4 may therefore be subject to selection bias because the wage equations can be estimated only with reemployed claimants. Selection bias occurs in the treatment/control comparisons if the reemployed claimants in the treatment group were either a more or less "select" group than the reemployed claimants in the control group, who became reemployed in the absence of the bonus offer. If the bonus offers induced relatively high-wage workers to become reemployed more quickly, the difference in wages between the treatment and control groups would represent an upwardly biased estimate of the impact of the treatments on wages. On the other hand, if the bonus offers induced relatively low-wage workers to become reemployed more quickly, the difference in wages between the groups would represent a downward biased estimate of the impact of the treatments on wages.

To control for the inherent differences between the reemployed treatment group members and the reemployed control group members, we estimated two additional wage models. The first of these models (model 2 in Table 5.4) includes additional explanatory variables to control for race, gender, age, weekly benefit amount (WBA), and base period earnings. The second of these models (model 3 in Table 5.4) is similar to model 2, but the dependent variable is defined as the difference between post- and pre-layoff quarterly earnings.

Table 5.4 Estimated Impacts of the Bonus Offers on Earnings among Reemployed Claimants[a] ($)

Treatment	Bonus amt./ duration	Model[b] 1	2	3
Illinois				
IT	$500/11 weeks	–18.0 (73.0)	8.0 (65.0)	37.0 (65.0)
Control group mean of depend. variable		3,326	3,326	69
Sample size		4,441	4,441	4,441
Pennsylvania				
PT1	3 × WBA[c]/6 weeks	7.0 (104.0)	–39.0 (81.0)	–43.0 (86.0)
PT2	6 × WBA/6 weeks	28.0 (92.0)	–40.0 (72.0)	–7.0 (76.0)
PT3	3 × WBA/12 weeks	130.0 (86.0)	28.0 (67.0)	–9.0 (71.0)
PT4	6 × WBA/12 weeks	162.0**[b] (80.0	52.0 (63.0)	40.0 (66.0)
Combined treatments		100.0 (66.0)	11.0 (51.0)	3.0 (54.0)
Control group mean		3,560	3,560	114
Sample size		8,442	8,442	8,442
Washington				
WT1	2 × WBA/ (0.2 × UI duration) + 1 week	109.0 (119.0)	71.0 (100.0)	48.0 (104.0)
WT2	4 × WBA/ (0.2 × UI duration) + 1 week	66.0 (117.0)	8.0 (99.0)	–6.0 (102.0)
WT3	6 × WBA/ (0.2 × UI duration) + 1 week	–33.0 (131.0)	–6.0 (110.0)	23.0 (114.0)
WT4	2 × WBA/ (0.4 × UI duration) + 1 week	–8.0 (116.0)	–114.0 (98.0)	–107.0 (101.0)
WT5	4 × WBA/ (0.4 × UI duration) + 1 week	–39.0 (116.0)	–95.0 (98.0)	–116.0 (106.0)
WT6	6 × WBA/ (0.4 × UI duration) + 1 week	221.0* (132.0)	90.0 (111.0)	73.0 (115.0)

(continued)

Table 5.4 (continued)

Treatment	Bonus amt./ duration	Model[b] 1	2	3
Combined treatments		46.0	–15.0	–23.0
		(86.0)	(72.0)	(75.0)
Control group mean		4,281	4,281	454
Sample size		11,454	11,454	11,454

SOURCE: State UI wage records.

[a] Standard errors in parentheses. * = 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.

[b] Model 1 uses earnings in the second quarter of earnings after the initial UI claim as the dependent variable and treatment indicators as explanatory variables. Model 2 is identical to model 1, but adds additional explanatory variables to control for race, gender, age, base period earnings, and WBA. Model 3 uses the change in quarterly earnings between the base period before the layoff and the second quarter of earnings receipt after the layoff as the dependent variable.

[c] WBA = Weekly UI benefit amount.

Based on these alternative models, it appears that claimants who received a bonus offer did not accept lower wages, on average, to become reemployed more quickly. The estimated impacts of the combined treatments are negative in Pennsylvania and Washington, but the estimates are small and statistically insignificant. The estimated impact of the combined Pennsylvania treatments is either positive or negative, depending on the model, but the estimates are consistently small and statistically insignificant.

IMPACTS ON EMPLOYER AND INDUSTRY ATTACHMENT

The bonus offers may have affected the probability that claimants returned to their previous employer. Claimants who had the opportunity to receive a reemployment bonus may have foregone the chance of returning to their previous employer in an effort to become reemployed within the qualification period. In addition, the Washington and Pennsylvania experiments paid bonuses only to reemployed claimants who

were not recalled to their old jobs.[10] This restriction provided an additional incentive to break any existing employer attachment.

Evidence from the experiments suggests that the bonus offers generally reduced the probability of returning to the previous employer.[11] Table 5.5 contains the estimated impacts on probability of recall based on two alternative models: model 1 is based on simple comparisons of reemployed treatment and control group members, while model 2 controls for other factors, including race, gender, age, previous industry, base period earnings, WBA, potential benefit duration, recall expectations, and local office. Approximately 40 percent of reemployed claimants in the control group in any of the states had returned to their previous employer. Surprisingly, the findings presented in Table 5.5 suggest that the Illinois bonus offer had a larger impact on the probability of returning to the previous employer than the combined Washington or Pennsylvania bonus offers. This finding is surprising because the Illinois experiment was the only one of the three experiments that did not have an explicit restriction on bonus payments to claimants who returned to their previous job.[12] Despite this factor, the estimated impact of the Illinois bonus was to decrease the probability of recall by an estimated 3 or 4 percentage points, significant at the 95 percent confidence level (model 2 in Table 5.5).

The estimated impact in Pennsylvania was smaller—the combined treatments reduced the probability of returning to the previous employer by 1.6 percentage points—and not statistically significant. Among the individual Pennsylvania treatments, the high bonus (6 × WBA) treatments had the largest estimated impacts on employer attachment (all significant at the 90 or 95 percent confidence level). Hence, in Pennsylvania the more generous bonus offers appear to have induced some claimants to take new jobs rather than wait to be recalled to their previous employer. The estimated impact of the combined treatments in Washington was similar to the Pennsylvania impact and was statistically insignificant in both models.[13,14]

The bonus offers may induce claimants to not only find jobs with new employers but also find jobs in new industries. Such an impact would occur if the financial incentive inherent in the bonus offer led claimants to search for jobs in other industries more intensively or accept jobs in other industries more readily than they would in the absence of the bonus offer. Industry codes were available to investigate

Table 5.5 Estimated Impacts on the Probability of Return to Previous Employer[a] (percentage points)

Treatment	Bonus amt./ duration	Model 1	Model 2
Illinois			
IT	$500/11 weeks	–4.0***	–3.9**
		(1.3)	(1.3)
Control group mean		39.9	39.9
Pennsylvania			
PT1	3 × WBA[c]/6 weeks	0.0	0.4
		(1.8)	(1.7)
PT2	6 × WBA/6 weeks	–2.7*	–2.6*
		(1.6)	(1.5)
PT3	3 × WBA/12 weeks	–0.4	0.1
		(1.5)	(1.4)
PT4	6 × WBA/12 weeks	–2.5*	–2.7*
		(1.4)	(1.3)
Combined treatments		–1.6	–1.4
		(1.1)	(1.0)
Control group mean		41.4	41.4
Washington			
WT1	2 × WBA/ (0.2 × UI duration) + 1 week	–1. 6	–1.0
		(1.5)	(1.4)
WT2	4 × WBA/ (0.2 × UI duration) + 1 week	–3.6**	–2.6*
		(1.5)	(1.4)
WT3	6 × WBA/ (0.2 × UI duration) + 1 week	1.8	2.9*
		(1.7)	(1.5)
WT4	2 × WBA/ (0.4 × UI duration) + 1 week	0.9	1.5
		(1.5)	(1.4)
WT5	4 × WBA/ (0.4 × UI duration) + 1 week	–2.3	–1.4
		(1.5)	(1.4)
WT6	6 × WBA/ (0.4 × UI duration) + 1 week	–1.9	–1.6
		(1.7)	(1.6)
Combined treatments		–1.2	–0.5
		(1.1)	(1.0)
Control group mean		40.2	40.2

Table 5.5 (continued)

SOURCE: State UI wage records.

[a] Standard errors in parentheses. * = 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; *** = statistically significant at the 99 percent confidence level in a two-tailed test.

[b] All estimates are based on linear probability models. Model 1 includes only treatment indicators as explanatory variables. Model 2 includes treatment indicators and other variables to control for race, gender, age, base period earnings, and WBA.

[c] WBA = Weekly UI benefit amount.

this issue in the Illinois and Washington experiments. These codes were derived from the employer identification numbers from the wage records and UI administrative records.[15] We based our investigation on the two-digit level of industrial classification.

Findings from the Illinois and Washington experiments provide generally weak evidence that the bonus offers may have reduced the probability that claimants returned to their previous industry. About half of the control group members in either experiment returned to their previous industry, with the rate being somewhat higher in Washington. The impacts of the Illinois treatment and the combined Washington treatments on the probability of returning to the previous industry were small and negative (Table 5.6). In model 2, which adjusts for individual characteristics, the Illinois treatment reduced the probability of return to industry by an estimated 1.7 percentage points, and the combined Washington treatments reduced the probability of return by 1.0 percentage point. Neither of these estimates, however, is significant at conventional confidence levels. Two of the individual Washington treatments, WT2 and WT5 (Table 5.6), had significant impacts on the probability of return, but neither of these treatments is the most generous treatments in Washington, and neither has a significant impact on duration of UI receipt (Chapter 4). Hence, these data provide only weak evidence that claimants reduced their UI duration and received a bonus by increasing their industrial mobility slightly.

Whether the decreased employer and industry attachment that may be attributable to the bonus experiments would be considered undesirable is unclear. The effect is undesirable only if claimants, in their effort to receive the bonus, were so shortsighted in their reemployment decisions that they lost lifetime earnings by taking jobs that did not

Table 5.6 Estimated Impacts on the Probability of Return to Previous Two-Digit Industry[a] (percentage points)

Treatment	Bonus amount/ duration	Model 1	Model 2
Illinois			
IT	$500/11 weeks	–2.2*	–1.7
		(1.4)	(1.3)
Control group mean		51.9	51.9
Washington			
WT1	2 × WBA/6 weeks	–0.7	–0.2
		(1.5)	(1.5)
WT2	4 × WBA/6 weeks	–3.2**	–2.6*
		(1.5)	(1.4)
WT3	6 × WBA/6 weeks	–0.2	0.5
		(1.7)	(1.6)
WT4	2 × WBA/12 weeks	–0.2	–0.1
		(1.5)	(1.4)
WT5	4 × WBA/12 weeks	–3.1**	–2.4*
		(1.5)	(1.4)
WT6	6 × WBA/12 weeks	–1.1	–0.8
		(1.7)	(1.6)
Combined treatments		–1.5	–1.0
		(1.1)	(1.0)
Control group mean		56.4	56.4

SOURCE: State UI wage records.

[a] Standard errors in parentheses. * = Statistically significant at the 90% confidence level in a two-tailed test; ** = statistically significant at the 95% confidence level in a two-tailed test.

[b] All estimates are based on linear probability models. Model 1 includes only treatment indicators as explanatory variables. Model 2 includes treatment indicators and other variables to control for race, gender, age, base period earnings, and WBA.

[c] WBA = Weekly UI benefit amount.

reward the employer- or industry-specific capital accumulated on their previous jobs. Presumably, rational claimants would only switch employers or industries to receive the bonus if the amount of the bonus compensated for any loss in lifetime earnings inherent in the switch.

CONCLUSION

Although the evidence is somewhat mixed, the three reemployment bonus experiments generally appear to have increased employment and earnings modestly. The clearest impacts on employment and earnings occurred in Illinois, where the $500 bonus offer increased earnings by an average of $250, or 3.4 percent, per claimant over the year following the initial UI claim. This finding is not surprising given that the Illinois experiment also had substantial impacts on UI receipt. The employment and earnings impacts in Pennsylvania were smaller than in Illinois and not statistically significant. Finally, the estimated earnings impacts in Washington were not consistently positive, although the estimated impacts of the most generous bonus offers were more positive than the impacts of the less generous offers.

Overall, the findings with respect to employment and earnings are consistent with the impacts on UI receipt presented in Chapter 4. The estimated employment and earnings impacts were modest, as would be expected given the modest impacts on UI receipt. In addition, the experiment with the largest impact on UI receipt (Illinois) also had the largest impacts on employment and earnings, while the experiment with the smallest impact on UI receipt (Washington) had the smallest impacts on employment and earnings.

We found no evidence that claimants responded to the bonus offers by sacrificing wages to speed their reemployment. In all three experiments, the reemployed treatment group members and the reemployed control group members had similar wages on their new jobs, other things being equal.

Finally, some claimants appear to have broken attachments with previous employers or industries to speed their reemployment. The clearest effects on employer and industrial mobility occurred in Illinois, where the bonus offer decreased the probability of returning to

the previous employer by 3 to 4 percentage points and decreased the probability of returning to the previous industry by about 2 percentage points. Similar findings with respect to employer attachment were found in Pennsylvania, where the most generous bonus offers significantly reduced the probability of returning to the previous employer. The Washington bonuses had negative estimated impacts on both the probability of returning to the previous employer and the probability of returning to the previous industry, but the estimates were smaller than in Illinois and tended to be insignificant.

Notes

1. Earnings data for later quarters are available but not for the full samples.
2. Interview data on earnings were also available for the Pennsylvania experiment but not for the Washington and Illinois experiments. Corson et al. (1992) used both wage records and interview data to investigate earnings in the Pennsylvania experiment and found that wage records provide adequate information for evaluating the impacts of the bonus offers on earnings. See Appendix D of Corson et al. (1992) for a direct comparison of interview and wage records data on earnings.
3. Decker (1989) discussed these and related shortcomings of UI wage records data based on data from the New Jersey UI Reemployment Demonstration. He estimated that 9 percent of the claimants in the New Jersey demonstration sample lived outside New Jersey (and therefore may have been likely to find work outside New Jersey) at the time of the demonstration, 3 percent became self-employed in the year after their initial UI claim, and 28 percent received severance pay or a pension payout from their previous employer.
4. Investigation of the outliers in the Washington data suggested that they reflect errors in the data rather than actual receipt of earnings or other forms of compensation. The outliers for given individuals in given quarters were extremely inconsistent with the earnings reported in other quarters for those individuals.
5. Earnings are not adjusted for differences in price levels, so some of the earnings differences may not represent differences in real earnings.
6. The higher reemployment rates for Washington were due partly to the inclusion of stand-by recall claimants in the Washington experiment. Since these claimants expected to be recalled by their pre-UI employer after a brief period of unemployment, the inclusion of these claimants in the Washington experiment increased the overall employment rates for Washington claimants compared with the Illinois and Pennsylvania experiments, which excluded stand-by recall claimants. See Chapter 2 for a full discussion of eligibility requirements in the three experiments.
7. We calculate the expected impact on earnings by multiplying 1.04 weeks by average weekly earnings in the base period for the control groups, $248.

8. Decker (1994) examined in detail the impacts of reemployment bonuses on the short-term and long-term unemployed in the Illinois experiment and the New Jersey UI Reemployment Demonstration.
9. We calculated the expected impact by multiplying the combined treatment impact on UI weeks (0.40) by average weekly earnings in the base period ($298) in Washington.
10. In the Washington experiment, bonuses were paid to claimants hired by their previous employers only if they were hired for different jobs. In Pennsylvania, claimants recalled by their previous employers did not receive bonuses, regardless of the job.
11. Claimants were treated as returning to their previous employer if the identification number of the employer in the first quarter of earnings matches the identification number of the separating employer. If a claimant had multiple employers in the first quarter of earnings, we used the employer that paid the most earnings in the quarter.
12. Among those Illinois claimants who eventually received a bonus payment, 21 percent had returned to their previous employer.
13. Spiegelman, O'Leary, and Kline (1992) also used data from a follow-up interview to investigate the probability of returning to the previous employer. Estimates based on these interview data suggest that the bonus offers significantly reduced the probability of recall by 6 percent. As pointed out by Spiegelman, O'Leary, and Kline, the interview data differ from the wage records by explicitly identifying the previous and new employers, instead of relying on the matching of codes from the wage records. Interview data may be less accurate due to errors in self-reporting, however, and the sample of survey respondents is a smaller and probably nonrandom subset of the claimant population.
14. Anderson (1992) considered the impact of a reemployment bonus on recall in her study of the New Jersey Unemployment Insurance Reemployment Demonstration. She found that the bonus offer in New Jersey did not reduce recall rates significantly.
15. In Illinois and Washington, the industry code is part of the employer identification number. In Pennsylvania, the employer identification number does not contain an industry code.

References

Anderson, Patricia M. 1992. "Time-varying Effects of Recall Expectation, a Reemployment Bonus, and Job Counseling on Unemployment Duration." *Journal of Labor Economics* 10(1): 99–115.

Corson, Walter S., and Paul T. Decker. 1990. "The Impact of Reemployment Services on Unemployment Insurance Benefits: Findings from the New

Jersey Unemployment Insurance Reemployment Demonstration." Unpublished paper.

Corson, Walter, Paul T. Decker, Shari Miller Dunstan, and Anne R. Gordon. 1989. *The New Jersey Unemployment Insurance Reemployment Demonstration Project: Final Evaluation Report*. Unemployment Insurance Occasional Paper 89-3, Washington, D.C.: U.S. Department of Labor, Employment and Training Administration.

Corson, Walter, Paul Decker, Shari Dunstan, and Stuart Kerachsky. 1992. *Pennsylvania Reemployment Bonus Demonstration: Final Report*. Unemployment Insurance Occasional Paper 92-1, Washington, D.C.: U.S. Department of Labor, Employment and Training Administration.

Decker, Paul T. 1989. "Systematic Bias in Earnings Data Derived from Unemployment Insurance Wage Records and Implications for Evaluating the Impact of Unemployment Insurance Policy on Earnings." Unpublished paper.

Decker, Paul T. 1994. "The Impact of Reemployment Bonuses on Insured Unemployment in the New Jersey and Illinois Reemployment Bonus Experiments." *Journal of Human Resources* 29(3): 718–741.

Spiegelman, Robert G., Christopher O'Leary, and Kenneth J. Kline. 1992. *The Washington Reemployment Bonus Experiment: Final Report*. Unemployment Insurance Occasional Paper 92-6, Washington, D.C.: U.S. Department of Labor, Employment and Training Administration.

Reemployment Bonuses in the Unemployment Insurance System

Evidence from Three Field Experiments

Philip K. Robins and Robert G. Spiegelman
Editors

2001

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

Library of Congress Cataloging-in-Publication Data

Reemployment bonuses in the unemployment insurance system : evidence from three field experiments / Philip K. Robins and Robert G. Spiegelman, editors.
p. cm.
Includes bibliographical references and index.
ISBN 0–88099–225–5 (pbk. : alk. paper)—ISBN 0–88099–226–3 (cloth : alk. paper)
1. Insurance, Unemployment—United States—States—Case studies. 2. Welfare recipients—United States—States—Case studies. 3. Bonus system—United States—States—Case studies. 4. Insurance, Unemployment—Illinois. 5. Insurance, Unemployment—Pennsylvania. 6. Insurance, Unemployment—Washington (State). I. Robins, Philip K. II. Spiegelman, Robert G.

HD7096.U5 R35 2001
331.13'77—dc21

2001026848

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.

Cover design by J.R. Underhill.
Index prepared by Leoni Z. McVey.
Printed in the United States of America.

01 02 03 04 05 06 8 7 6 5 4 3 2 1