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An Analysis of Pooled Evidence from the Pennsylvania and Washington Reemployment Bonus Demonstrations

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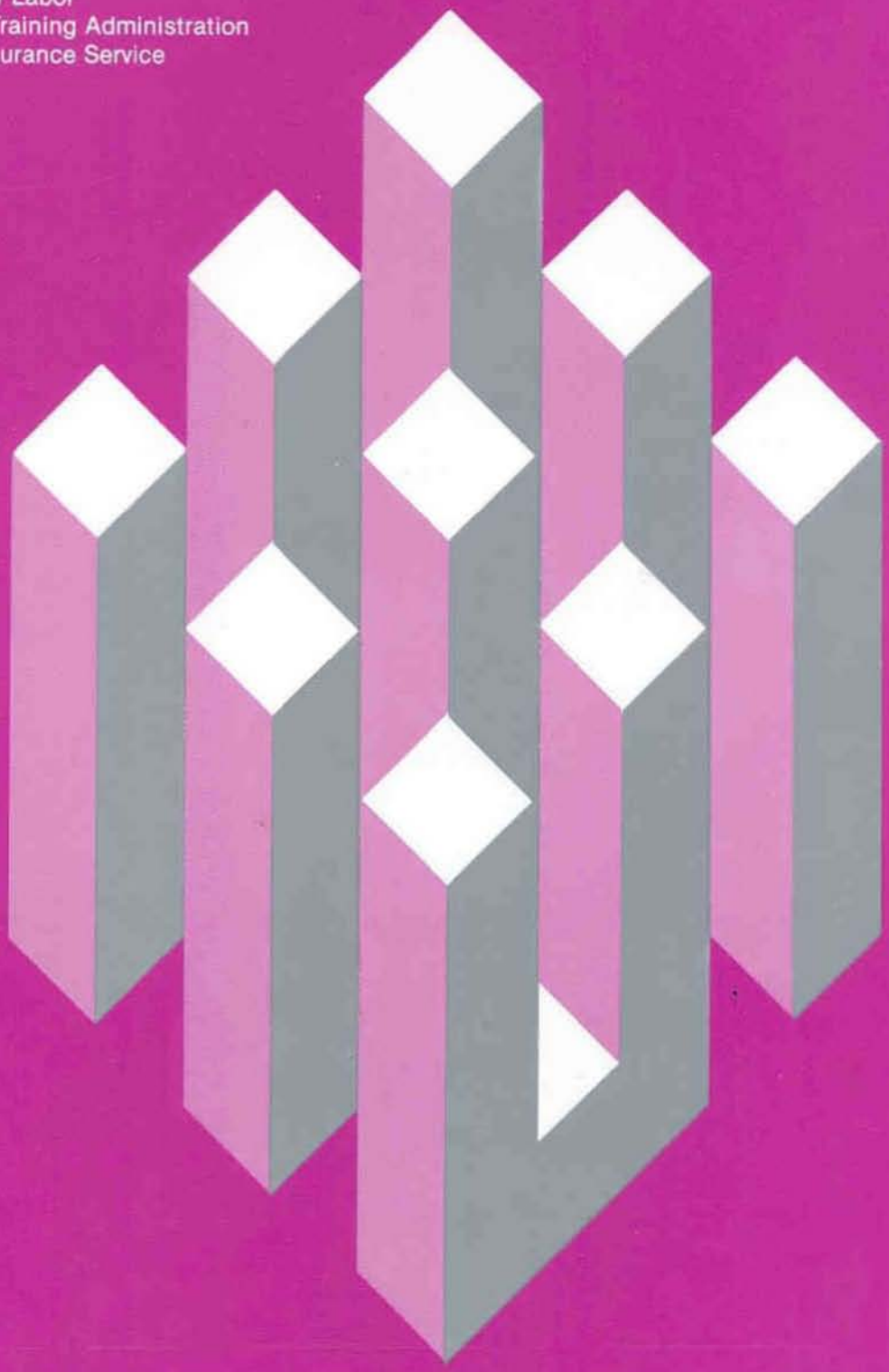
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Unemployment Insurance
Occasional Paper 92-7

U.S. Department of Labor
Employment and Training Administration
Unemployment Insurance Service



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Unemployment Insurance
Occasional Paper 92-7

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Roberts T. Jones
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AN ANALYSIS OF POOLED EVIDENCE FROM THE PENNSYLVANIA AND WASHINGTON REEMPLOYMENT BONUS DEMONSTRATIONS

December 1991

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INTRODUCTION

This publication completes a major research effort conducted over the past eight years to determine the effectiveness of providing incentives to unemployed workers to speed their return to work. This effort represent a portion of a larger research program conducted by the U.S. Department of Labor to determine effective methods of providing reemployment assistance and/or incentives to unemployed workers. A series of demonstration projects were launched to increase employment, improve wages and reduce periods of unemployment.

Recent demonstrations in Illinois, New Jersey, Pennsylvania, and Washington tested the use of reemployment bonuses in the unemployment insurance (UI) system. These bonuses provide a cash payment to claimants who become reemployed quickly, thus providing a monetary incentive for rapid reemployment. More rapid reemployment of UI claimants will increase earnings and reduce UI payments. These effects may be large enough to offset the cost to the UI system of providing bonuses.

The Illinois and New Jersey demonstrations were conducted, respectively, in 1984-85 and 1986-87. The Illinois demonstration was initiated and sponsored by the State, while the New Jersey demonstration was initiated and sponsored by the U.S. Department of Labor and operated under a cooperative agreement with the State. Each of these demonstrations tested a single bonus offer. In Illinois a fixed bonus amount of $500 was offered, while in New Jersey the value of the initial bonus offer varied with the prior wage of the unemployed worker and declined over time.

The Washington and Pennsylvania demonstrations, conducted in 1988-89, were also initiated and sponsored by the U.S. Department of Labor and conducted under cooperative agreements with the States. These demonstrations, which were initiated because the initial demonstrations proved promising, tested a range of similar bonus offers that provided alternative bonus amounts and alternative qualification periods (that is, the period within which a job had to be accepted to qualify the claimant for the bonus). By testing a range of offers these demonstrations provided an opportunity to examine the impact of changes in the bonus parameters.

Independent evaluations of the Pennsylvania and Washington demonstrations were conducted, respectively, by Mathematica Policy Research and the Upjohn Institute for Employment Research and are being published simultaneously with this report as UI Occasional Papers.

In this report, similarities between the Pennsylvania and Washington demonstrations have allowed the authors to develop a combined ("pooled") sample from the two demonstrations. This combined sample was used to examine the impacts of reemployment bonuses on the receipt of UI and on employment and earnings. As a result, the authors were able to estimate impacts with greater precision than had been possible with the separate samples.

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EXECUTIVE SUMMARY

The Unemployment Insurance (UI) program provides short-term income support to involuntarily unemployed individuals while they seek work. To promote rapid reemployment, the program currently imposes work-search requirements on UI claimants and refers claimants to the Job Service. However, policy interest has been expressed in providing additional services to claimants, including monetary incentives for claimants to seek work on their own. These monetary incentives could be provided in the form of a reemployment bonus—a lump-sum benefit paid to claimants who become reemployed quickly. A reemployment bonus would potentially compensate for the reemployment disincentives inherent in the UI system, which pays benefits to claimants for the weeks in which they remain unemployed.

In 1988 and 1989, demonstrations of reemployment bonus offers (or "treatments") in the UI program were conducted in Pennsylvania and Washington. These two field tests of a reemployment bonus differed somewhat according to the rules governing eligibility and the terms of the bonus offers, but these differences were superseded by similarities that allowed us to merge the samples of claimants in the separate demonstrations. This report presents our analysis of a merged sample of 27,616 claimants who were eligible for the demonstrations.

DESIGN OF THE DEMONSTRATIONS

In both the Pennsylvania and Washington demonstrations, eligible claimants were assigned randomly either to one of several treatment groups that were offered bonuses or to a control group that was not offered a bonus. Claimants who were assigned to a treatment were told that they would receive a lump-sum cash payment if they started a new job by a certain date and remained on that job for a specified minimum period (approximately 4 months). In both demonstrations, the bonus qualification period was either short (approximately 6 weeks) or long (approximately 12 weeks), and the bonus amount was calculated as a multiple of each claimant's UI weekly benefit amount (WBA). Pennsylvania tested low and high multiples (three times and six times) of the WBA, while Washington tested three multiples (two, four, and six times) of the WBA. To examine the impact of the bonus offers, we compared outcomes among the combined control group and the various treatment groups.

RESPONSES TO THE BONUS OFFERS

About 13 percent of the claimants assigned to a treatment in either demonstration returned to work within the bonus qualification period and received a bonus. Among the individual treatments, the rate of bonus receipt ranged from 7 percent for the low-amount, short-duration bonus offer in Pennsylvania to 22 percent for the high-amount, long-duration bonus offer in Washington. Both the amount and duration of the bonus offer significantly affected the probability of bonus receipt. Our estimates imply that increasing the amount of the offer by $100 would increase the probability of bonus receipt by 0.8 percentage points, and increasing the duration of the offer by one week would increase the probability of bonus receipt by 0.9 percentage points. The probability of bonus receipt appears to have been greater in Washington than in Pennsylvania for similar treatments, even after controlling for differences in the characteristics of the demonstration samples. This finding suggests that bonus receipt, while affected by the amount and duration of the bonus offer, is also sensitive to different program characteristics and different operating environments.

The bonus offers tested in the demonstrations significantly reduced UI receipt during the benefit year. Among the individual treatments, the impacts on UI receipt ranged from a negligible increase of $24 for the low-amount, short-duration bonus offer in Washington to a $146 reduction for the high-amount, long-duration offer in Washington. The combined average impact of the treatments was a reduction in UI receipt of $85 per claimant. Both the amount and the duration of the bonus offer significantly affected the amount of UI benefits received. The estimates imply that increasing the bonus offer amount by $100 would reduce UI receipt by about $7 per claimant, while increasing the bonus duration by one week would reduce UI receipt by about $5.50 per claimant. The estimated impacts of the bonus offers on UI receipt were largest among claimants who were previously employed in manufacturing industries and among claimants from areas whose unemployment rates were relatively low.

Because the bonus offers reduced UI receipt, we also expected to observe an increase in employment and earnings among claimants assigned to the treatments, but we found little evidence of such an increase. During the year after benefit application, treatment group members earned an average of only $7 more than control group members. While the estimates were not precise, we found some evidence that earnings increased with the dollar amount of the bonus offer and decreased with the duration of the bonus offer.

BENEFIT-COST ANALYSIS

To help policymakers apply the results of our analysis and to summarize the findings, we conducted an analysis of the net benefits (benefits minus costs) of the bonus demonstrations. Based on our estimates, we calculated net benefits for four hypothetical bonus offers, encompassing the four possible combinations of two bonus amounts ($500 and $1,000) and two bonus qualification periods (6 weeks and 12 weeks).

These four hypothetical bonus offers would, with one exception, yield positive net benefits for claimants and for society as a whole. For the two $1,000 bonus offers, claimants would receive bonus payments that, on average, exceed the UI benefits that they would forego. Consequently, because the bonus offers would also generate a small increase in earnings, the claimants would receive estimated net benefits from both $1,000 bonus offers. For the two $500 bonus offers, claimants would receive bonus payments that are somewhat lower than the UI benefits they would forego. However, because the bonus offers would also increase earnings slightly, claimants would receive net benefits from the $500, 6-week offer, and would nearly break even for the $500, 12-week offer. Society would also receive net benefits from the bonus offers, with the exception of the $500, 12-week offer, which would yield a modest net loss for society.

The hypothetical bonus offers would not be cost-effective from the perspective of the UI system, although the UI system would nearly break even in response to the two $500 bonus offers. The estimated costs of administering and paying the hypothetical bonus offers exceed the estimated bonus-induced reduction in benefits. The bonus offers would thus generate net losses for the UI trust funds, although the losses for the two $500 offers would be less than $7 per claimant. Despite the estimated net losses for the UI trust funds, two of the bonus offers—those with a qualification period of 12 weeks—would generate positive net benefits for the government as a whole.

I. BACKGROUND

The Unemployment Insurance (UI) program provides short-term income support to involuntarily unemployed individuals while they seek work. Historically, the UI program has used administrative work-search requirements and referrals to the Job Service to promote rapid reemployment. In recent years, however, policy interest has been expressed in providing additional services to UI claimants, including monetary incentives for claimants to seek work on their own. These monetary incentives can be provided in the form of a reemployment bonus—a lump-sum cash payment to those who become reemployed or self-employed quickly. This "reemployment bonus" concept alters the reemployment incentives of the regular UI system, which pays benefits to claimants for the weeks they remain unemployed.

Two recent initiatives, the Pennsylvania Reemployment Bonus demonstration and the Washington Reemployment Bonus demonstration, tested the effects of alternative reemployment bonuses on the reemployment and UI receipt of UI claimants. Evaluations of the individual demonstrations showed that reemployment bonuses reduced the amount of time spent on UI, thereby reducing benefit payments.[1] Moreover, the demonstrations showed that the benefits of reemployment bonuses can exceed their costs to society, claimants, and the government. However, for all but one of the bonus offers tested in the demonstrations, the amount of the bonus payments plus the administrative costs necessary to offer them exceeded the savings in UI payments. Thus, reemployment bonuses do not appear to be cost-effective from the standpoint of the UI system.

In this report, we extend the research on reemployment bonuses by examining the UI receipt and employment and earnings of the combined sample of claimants from both the Pennsylvania and Washington demonstrations. By merging the two data sets, we can determine with greater certainty

[1]The findings for the Pennsylvania demonstration are presented in Corson et al. (1991), and the findings for the Washington demonstration are presented in Spiegelman et al. (1991).

the extent to which the reemployment bonuses affected economic outcomes. We also use the findings from the merged sample to provide a comprehensive evaluation of the benefits and costs associated with a reemployment bonus program.

This initial chapter summarizes the characteristics of the demonstrations as they were designed and the impacts of each demonstration as presented in the corresponding final reports. We also discuss the process whereby the data sets from the two demonstrations were merged, and describe the characteristics of the two samples and the states from which they were drawn.

A. THE CHARACTERISTICS OF THE DEMONSTRATIONS

Both the Pennsylvania and the Washington demonstrations tested several alternative bonus offers, which differed according to the amount of the offer and the period for which an individual qualified for the bonus. In both demonstrations, eligible claimants were assigned randomly to either treatment groups that received one of the bonus offers or to a control group that was not offered a bonus.[2] Both demonstrations also incorporated similar bonus claims processes whereby claimants filed for the bonus payment once they fulfilled the eligibility requirements.

Although the demonstrations were similar along these general dimensions, the demonstrations differed in some relatively minor ways. These minor differences may have affected the outcomes for claimants in the two demonstrations.

In discussing the characteristics of the bonus demonstrations, we focus on three factors—the parameters of the bonus offers, the populations of UI claimants who received bonus offers in the two demonstrations, and the additional requirements for receiving the bonuses. We discuss these three factors in the remainder of this section.

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[2]Random assignment ensures that in the absence of the demonstration the outcomes for the control group members should be similar to those for the treatment group members. Hence, any differences in the behavior of claimants in the treatment groups can be attributed directly to the treatments.

1. The Bonus Offers

Both the Pennsylvania and the Washington demonstrations tested several alternative bonus offers that differed according to the amount of the bonus offer and the duration of the bonus qualification period. The various bonus offers that were chosen encompassed the majority of the policy-relevant reemployment bonus options.

As shown in Table I.1, the Pennsylvania demonstration tested four different bonus offers based on two alternative bonus amounts and two alternative qualification periods. The two bonus amounts included a low amount, which was set at three times the claimant's UI weekly benefit amount (WBA), and a high amount, set at six times the claimant's WBA. The average bonus amounts (in dollars) for each treatment are shown in Table I.1. The two qualification periods that were tested included a short period of 6 weeks and a long period of 12 weeks, beginning on the bonus offer date.[3]

The Washington demonstration tested six different bonus offers based on three alternative bonus amounts and two alternative qualification periods. As in the Pennsylvania demonstration, the three bonus amounts were tied to the claimant's weekly benefit amount (WBA): two times the claimant's WBA, four times the claimant's WBA, or six times the claimant's WBA. The two qualification periods were tied to the claimant's potential UI duration, measured in weeks: 20 percent of the claimant's potential UI duration plus one week, or 40 percent of the claimant's potential UI duration plus one week, both of which began on the Sunday before the date of the initial UI claim. The average bonus amounts (in dollars) and the average bonus durations (in weeks) for each treatment group are also presented in Table I.1.

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[3]The Pennsylvania design also included fifth and sixth treatments. The fifth treatment tested a bonus offer that declined gradually from the high amount over a 12-week qualification period, thus giving claimants an incentive to become reemployed as quickly as possible within the 12-week period. Since this bonus offer was dissimilar to any other Pennsylvania or Washington bonus offer, we excluded the declining bonus treatment from the pooled analysis. The sixth Pennsylvania treatment was identical to the fourth treatment, except it excluded the offer of a job-search workshop that accompanied all of the other treatments. However, so few claimants participated in the workshop that there was effectively no difference between the groups, and, consequently, we combined the groups into a new PT4 group.

TABLE I.1

THE CHARACTERISTICS OF THE REEMPLOYMENT BONUS DEMONSTRATIONS

Pennsylvania Demonstration

Bonus Structure

The four primary bonus offers took the following form:

	Qualification Period	
Bonus Amount	6 Weeks	12 Weeks
3 × WBA	Treatment 1 (PT1)	Treatment 2 (PT2)
6 x WBA	Treatment 3 (PT3)	Treatment 4 (PT4)

Average bonus parameters:

Treatment	Average Bonus Amount	Average Qualification Period
PT1	$500	6 weeks
PT2	$498	12 weeks
PT3	$1,003	6 weeks
PT4	$989	12 weeks

Washington Demonstration

Six bonus offers were tested:

	Qualification Period	
Bonus Amount	(.2 × Potential UI Duration) + 1 Week	(.4 × Potential UI Duration) + 1 Week
2 × WBA	Treatment 1 (WT1)	Treatment 4 (WT4)
4 × WBA	Treatment 2 (WT2)	Treatment 5 (WT5)
6 x WBA	Treatment 3 (WT3)	Treatment 6 (WT6)

Average bonus parameters:

Treatment	Average Bonus Amount	Average Qualification Period
WT1	$302	5.7 weeks
WT2	$610	5.8 weeks
WT3	$917	5.7 weeks
WT4	$303	11.0 weeks
WT5	$612	11.0 weeks
WT6	$924	11.1 weeks

TABLE I.1 (continued)

	Pennsylvania Demonstration	Washington Demonstration
Additional Services Offered	Voluntary job-search workshop	None
Eligibility Criteria	• Initial claims only • Regular UI claimants • Initially satisfied monetary eligibility conditions • Did not accept employment exclusively through a union • Did not have a specific recall date within 60 days after benefit application • Was not separated from job due to a labor dispute • Signed for a waiting week or first payment within 6 weeks after benefit application date	• Initial claims only • Eligible to receive benefits from the state UI trust fund • Monetarily valid claims at the time of filing
Delivery of Bonus Offer	Offer made to claimants when they signed for a waiting week or first payment.	Offer made at the time claimants filed for benefits.
Additional Requirements for Receiving the Bonus	• 16 weeks of continuous employment (no employment interruption of more than one week). • Did not claim UI benefits during the reemployment period. • Employment at bonus-qualifying job averaged 32 or more hours per week. • Maintained monetary and nonmonetary UI eligibility up to the point of reemployment.	• 4 months of continuous employment (no employment interruption of more than one week) • Did not claim UI benefits during the reemployment period. • Employment at bonus-qualifying job averaged 34 or more hours per week. • No separation issue in the initial UI claim that prevented UI benefit payments during the bonus qualification period.

SOURCES: Washington: Spiegelman et al. (1991); Pennsylvania: Corson et al. (1991).

Given these designs, the Pennsylvania and Washington demonstrations tested similar bonus offers. Some of the individual treatments in the two demonstrations were almost identical—for example, treatments PT3 and PT4 in the Pennsylvania demonstration were nearly identical to treatments WT3 and WT6 in the Washington demonstration. As shown in Table I.1, the average bonus amount and duration for PT3 were $1,003 and 6 weeks, while the average bonus amount and duration for WT3 were $917 and 5.7 weeks. The average bonus amount and duration for PT4 were $989 and 12 weeks, while the average bonus amount and duration for WT6 were $924 and 11.1 weeks.[4]

2. The Population Who Received a Bonus Offer

The Washington demonstration offered bonuses to a broader group of UI claimants than the Pennsylvania demonstration. The difference in the type of population served by each demonstration was due to two factors–the eligibility criteria and the timing of the bonus offers.

The Pennsylvania demonstration targeted regular UI claimants who did not have a strong attachment to their pre-layoff employer, because it was assumed that workers who were attached to their pre-layoff employer would not be affected by a bonus offer. In order to achieve this objective, the Pennsylvania demonstration excluded both claimants who had a specific recall date within 60 days after their UI application and claimants who accepted employment exclusively through a union.

In contrast, the Washington demonstration did not exclude claimants on the basis of employer or union attachment. In Washington, it was hoped that the bonus offers would encourage these claimants to seek new jobs and become employed more rapidly than if they relied simply on recall or placement by their union. If these claimants obtained jobs through means other than their

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[4]One general difference in the bonus designs was that the qualification periods for the Pennsylvania treatments were constant across claimants, rather than tied to the claimants' maximum benefit duration, as in the Washington demonstration. However, since over 98 percent of the claimants in the Pennsylvania had the same maximum benefit duration of 26 weeks, the constant qualification periods in Pennsylvania also represented a constant proportion of maximum benefit durations for the majority of claimants.

previous employer or union attachment, they were eligible to receive a bonus. But if these claimants were recalled to their previous job or placed on a job through their union hiring hall, they did not qualify for a bonus.

The timing of the bonus offer also differed across the demonstrations. In the Pennsylvania demonstration, claimants applied for UI benefits just as they would under the regular UI claims process. Following standard UI guidelines, claimants were scheduled to return to the local office after two weeks to file for both their waiting week and their first compensable claim.[5] In the period between the application date and the filing date, applicants were assigned randomly to one of the treatment groups or to the control group. Claimants assigned to a treatment group were offered the bonus when they filed for the waiting week or a first payment. Hence, bonus offers were made only to claimants who claimed at least a waiting week or a first payment. Any claimants who applied for benefits but did not subsequently claim a waiting week or a first payment were excluded from the demonstration.

In the Washington demonstration, claimants were randomized and received bonus offers at their initial UI application interview, before they signed for a waiting week or a first payment. This difference in the timing of the bonus offers makes the Washington demonstration somewhat more inclusive, since some of the claimants who received bonus offers in the Washington demonstration would not have received an offer according to the Pennsylvania design.[6]

3. Additional Requirements for Receiving the Bonus

In both demonstrations, the individuals who were offered a bonus were subject to a few additional requirements in order to be eligible to receive the bonus; with only a few minor exceptions,

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[5]Some claimants, primarily those subject to nonmonetary UI eligibility issues, were scheduled to return to the local office one week after their application-filing date to file for their waiting week.

[6]In their evaluation of the Washington demonstration, Spiegelman et al. (1991) consider the implications of excluding those claimants who did not subsequently receive UI benefits or serve a waiting week.

these requirements were similar in the two demonstrations. For example, in both demonstrations, bonuses were not paid to claimants who were recalled to their previous job or were placed on a job through their union hiring hall. These two groups of claimants were denied bonuses because it was assumed that this type of reemployment outcome was largely outside the control of the worker and thus would not be affected by the bonus offer.

Other requirements for bonus receipt included the following:

1. ***Reemployment Period.*** Because the offer of a reemployment bonus offer might prompt some claimants to accept poorly suited jobs just to claim the bonus, both demonstrations established safeguards to ensure that such jobs had more than short-term potential. The Pennsylvania demonstration required that bonus claimants work in their new jobs for 16 weeks before receiving their bonus. Similarly, the Washington demonstration required that claimants work for 4 months before receiving their bonus. Both demonstrations required that employment be continuous over the reemployment period. In both demonstrations, claimants were allowed to change jobs during this period as long as both their employment was not interrupted for more than a week and they did not claim UI benefits during the reemployment period.

2. ***Full-Time Employment.*** In both demonstrations, all bonus-qualifying jobs were required to be full-time. In the Pennsylvania demonstration, a job was considered to be full-time if the worker was employed 32 or more hours per week and did not collect UI benefits while he or she was employed in that job. Similarly, in the Washington demonstration, a job was considered to be full-time if the worker was employed 34 or more hours per week and did not collect UI benefits while employed.

3. ***UI Eligibility.*** In both Pennsylvania and Washington, claimants were required to meet standard UI eligibility criteria to some extent in order to receive the bonus. In Pennsylvania, claimants were required to maintain both monetary and nonmonetary eligibility for UI up to the point of reemployment. In Washington, bonus recipients were not allowed to have a separation issue in the initial UI claim that prevented UI benefit payments during the qualification period.

B. THE FINDINGS IN THE PENNSYLVANIA AND WASHINGTON FINAL REPORTS

The evaluations of both the Pennsylvania and the Washington demonstrations found that a reemployment bonus can be implemented successfully as part of the existing UI system, and that the availability of a bonus offer can reduce the amount of time spent on UI, thereby reducing benefit payments. In the remainder of this section, we summarize the findings of the evaluations for the major outcomes of interest.

1. Bonus Receipt Rates

Table I.2 shows that between 7 and 22 percent of the claimants who were assigned to one of the 10 treatment groups received a bonus payment, depending on the treatment being considered, and the receipt rates were highest for the most generous bonus offers. In the Pennsylvania demonstration, the proportion of treatment group members who received a bonus ranged from about 7 percent for the least generous bonus offer (PT1) to nearly 14 percent for the most generous bonus offer (PT4). In the Washington demonstration, bonus receipt rates were also higher for the most generous offers, ranging from about 9 percent for the least generous bonus (WT1) to 22 percent for the most generous bonus (WT6).

Bonus receipt rates also appear to have been higher in the Washington demonstration than in the Pennsylvania demonstration. This finding is demonstrated by comparing the bonus receipt rates for treatments WT3 and WT6 in Washington with the rates for treatments PT3 and PT4 in Pennsylvania. Since the two sets of treatments were nearly identical, we would expect that, other things being equal, they would generate similar bonus receipt rates. However, as shown in Table I.2, bonus receipt rates in Washington were 15 percent for WT3 and 22 percent for WT6, substantially higher than the corresponding Pennsylvania rates of 8 percent for PT3 and 14 percent for PT4. In Chapter II, we reexamine the bonus receipt rates based on our merged sample of Pennsylvania and Washington claimants to attempt to determine why the bonus receipt rates were higher in the Washington demonstration.

2. Impacts on UI Receipt, Employment, and Earnings

The bonus offers in both the Pennsylvania and the Washington demonstrations generally reduced UI receipt, with the greatest reductions in UI receipt occurring in response to the most generous bonus offers. For example, in the Pennsylvania demonstration, the most generous bonus offer (PT4) had the greatest impact on benefits, reducing average UI receipt by about 0.8 weeks, or $130, per claimant. The more limited bonus offers—a smaller bonus amount, a shorter qualification period, or

TABLE I.2

THE FINDINGS FROM THE REEMPLOYMENT BONUS DEMONSTRATIONS

	Pennsylvania Demonstration	Washington Demonstration
Bonus Receipt Rates	As a proportion of claimants assigned to each treatment group: **Treatment:** PT1. 6.9 percent PT2. 10.7 percent PT3. 8.3 percent PT4. 13.5 percent All Treatments: 10.5 percent	As a proportion of claimants assigned to each treatment group: **Treatment:** WT1. 8.7 percent WT2. 12.4 percent WT3. 15.0 percent WT4. 13.9 percent WT5. 17.8 percent WT6. 22.0 percent All Treatments: 14.6 percent
Impact on UI Receipt	Impacts on UI receipt in the benefit year: **Treatment:** PT1. -.65* weeks, -$103* compensation PT2. -.36 weeks, -$69 comp. PT3. -.44 weeks, -$99* comp. PT4. -.82***weeks, -$130***comp.	Impacts on UI receipt in the benefit year: **Treatment:** WT1. -.04 weeks, $19 compensation WT2. -.27 weeks, -$41 comp. WT3. -.70** weeks, -$107** comp. WT4. -.62** weeks, -$117** comp. WT5. -.26 weeks, -$40 comp. WT6. -.75** weeks, -$141** comp.
Impact on Employment and Earnings	Overall: Generally, the treatments had a positive but small and insignificant impact on postapplication employment or earnings when wage records were used to measure the outcomes. When outcomes were measured with interview responses, the treatments had a positive but insignificant impact on employment, but the impacts on earnings were substantial and significant in some cases.	NA

TABLE I.2 (continued)

	Pennsylvania Demonstration	Washington Demonstration
Benefit-Cost Findings	Net benefits from social perspective: **Treatment:** PT1.-$376 per claimant PT2. $215 PT3. $135 PT4. $172 Net benefits from UI system perspective: **Treatment:** PT1. $30 per claimant PT2. -$19 PT3. -$25 PT4. -$51 Net benefits from total government perspective: **Treatment:** PT1. -$64 per claimant PT2. $35 PT3. $12 PT4. $0	Net benefits from social perspective: **Treatment:** WT1. -$6 per claimant WT2. $90 WT3. $266 WT4. $308 WT5. $88 WT6. $349 Net benefits from UI system perspective: **Treatment:** WT1. -$51 per claimant WT2. -$42 WT3. -$38 WT4. $68 WT5. -$77 WT6. -$77 Net benefits from total government perspective: **Treatment:** WT1. -$51 WT2. -$28 WT3. $2 WT4. $115 WT5. -$63 WT6. -$24

SOURCES: Washington: Spiegelman et al. (1991); Pennsylvania: Corson et al. (1991).

NA = Not available.

* Statistically significant at the 90 percent confidence level in a two-tail test.
** Statistically significant at the 95 percent confidence level in a two-tail test.
*** Statistically significant at the 99 percent confidence level in a two-tail test.

a bonus that declined over time—reduced UI receipt by an average of about a half a week, or $80, per claimant. In the Washington demonstration, the most generous bonus offer (WT6) reduced UI receipt by 0.75 weeks, or $140, per claimant. As in the Pennsylvania demonstration, the less generous bonus offers in Washington tended to have smaller impacts on UI receipt.

Because the bonus offers reduced UI receipt, we also expected to observe an increase in employment and earnings. Given that bonuses were paid only to claimants who found reemployment, the bonus offers must have reduced UI receipt because they induced claimants to become reemployed more quickly. If claimants who received bonus offers became reemployed more quickly, they should also have experienced greater levels of employment and earnings following their benefit application.

The evaluations of the individual demonstrations showed that the bonuses had small but statistically insignificant impacts on employment and earnings. The Pennsylvania estimates demonstrate that the bonus offers in that demonstration probably increased postapplication employment and earnings for claimants, but the impacts were small. The magnitudes of these estimated earnings impacts were consistent with the estimated impacts on UI receipt in Pennsylvania discussed above. The Washington final report did not present comparable estimates of the impacts of the bonuses on earnings or employment for all claimants.[7]

3. Benefits and Costs

In both demonstrations, the bonus offers generally yielded net benefits to claimants and to society as a whole, as shown in Table I.2. On average, claimants responded to the bonus offers by giving up benefits that were approximately equal to the bonus payments they received. Consequently, because claimants also experienced somewhat greater employment and earnings from having been offered the bonuses, they received net benefits from the bonus program. Society also derived net

[7]Both the Pennsylvania and Washington final reports presented estimated impacts on earnings for claimants who became reemployed to determine whether the bonuses had a negative effect on the quality of the postunemployment job. Neither report found evidence that the bonus offers had an effect on job quality as measured by the earnings of reemployed claimants.

benefits from the bonus programs because the earnings gains exceeded the relatively low administrative costs of the programs. The findings in Table I.2 demonstrate that three of the four Pennsylvania bonus offers yielded net social benefits of greater than $100 per claimant, and five of the six Washington bonus offers generated net social benefits of greater than $100 per claimant.

Although the bonus offers generated net benefits to claimants and to society, they were not cost-effective from the perspective of the UI system. The costs of administering and paying reemployment bonuses in the demonstrations generally exceeded the bonus-induced reduction in UI receipt. The bonus offers thus imposed modest net losses on the UI trust funds. Nevertheless, the taxes on increased earnings generated net benefits to the government as a whole for four of the bonus offers in the two demonstrations. The high-amount, short-duration offers in both demonstrations (PT3 and WT3) yielded positive net benefits for the government.

C. ANALYSIS OF THE MERGED PENNSYLVANIA AND WASHINGTON SAMPLES

In this report we extend the analysis of the Pennsylvania and Washington demonstrations by evaluating a merged sample of the claimants in the two demonstrations. Data from the demonstrations were merged to increase the precision of estimates of the effects of a reemployment bonus offer. Because the demonstrations served different populations in different economic environments, we also wanted to control for these differences as much as possible in using the merged sample. This section reviews the data merging process, discussing the major decisions that were made to define the merged sample. We also investigate how the personal characteristics of Pennsylvania claimants differed from those of the Washington claimants in the merged sample, and how the economic conditions and demographic characteristics of the two demonstration states differed.

1. Forming the Merged Sample

Our general strategy in merging the claimant samples from the two demonstrations was to make the Pennsylvania and Washington samples as comparable as possible without excluding a large number of claimants. Claimants were excluded from the merged sample only if their inclusion would lead to differences between Pennsylvania and Washington claimants that would present difficulties for measuring the impacts of the bonus offers. Once the merged sample was created, we estimated the impacts of the treatments using a regression model that contained control variables to account for any remaining observable differences between the samples.

As discussed in previous sections, two differences between the demonstrations were the type of claimants who were eligible for the bonus offers and the timing of the offers. The Pennsylvania demonstration excluded both claimants who were waiting to be recalled to their previous job within 60 days and claimants who were members of full referral unions, whom the Washington demonstration did not exclude. In addition, the bonus offer in Pennsylvania was made only after the waiting week or first payment was claimed, while the offer in Washington was made when claimants applied for benefits. These differences between the demonstrations imply that the claimants who were sampled in the two demonstrations should also have differed.

We considered excluding the claimants from the Washington sample who would not be eligible according to the Pennsylvania design (for example, those who reported that they were full referral union members) to make the demonstration samples comparable to each other. However, this approach would have excluded as much as 30 percent of the Washington sample. In addition, excluding Washington claimants who failed to file for a waiting week or a first payment would also have been problematic, because we would then have been choosing a sample on the basis of a variable expected to be affected by the bonus offer.[8] To avoid these problems, we kept these claimants in the sample, and used binary indicators to control for recall expectations and union hiring

[8]Spiegelman et al. (1991, Chapter 5) discuss this point.

hall status in conducting the impact analysis.[9] We also tested the alternative approach of excluding the claimants from the sample, and we found that the consequent estimates were similar to our estimates derived from including the claimants and using binary indicators to control for stand-by or union hiring hall status.

2. The Characteristics of the Samples and the States

The merging process yielded an analysis sample of 27,616 claimants—12,082 claimants from Pennsylvania and 15,534 from Washington. Included in this sample are 3,354 claimants assigned to the Pennsylvania control group, and 3,082 claimants assigned to the Washington control group. Since control group members in both states did not receive a bonus offer, we can use these two groups to compare the characteristics and UI outcomes for the demonstration-eligible claimants in the two states in the absence of a bonus offer.

As shown in Table I.3, relatively minor differences existed between the control group members in the two states. In both states, about 16 percent of the claimants were racial minorities, but in Pennsylvania the minority claimants were primarily black, while in Washington they were distributed evenly among black, Hispanic, and other nonwhite groups. These racial mixes are generally representative of the racial distributions for the overall populations of those states, which are shown in Table I.4. In addition to the different racial mix, the base-period earnings, weekly benefit amounts, and potential UI durations of the two samples of claimants also differed. Claimants in Pennsylvania had lower base-period earnings, but received higher weekly benefit amounts than Washington claimants. Claimants in Washington had longer average potential durations of UI benefits, due to the 30-week maximum duration in that state, compared with the 26-week limit for Pennsylvania.

In pooling data from the two demonstrations, we must also consider the economic context in which the separate demonstrations were operated because different economic conditions may lead

[9]We did not include a binary indicator for waiting week because, by definition, this variable would have depended on the outcome of interest.

TABLE I.3

THE CHARACTERISTICS OF CONTROL GROUP MEMBERS
IN EACH DEMONSTRATION

Characteristics	Pennsylvania Control Group	Washington Control Group
Gender (Percent)		
Female	40.5	39.5
Age (Percent)		
Less than 35 years	53.5	52.2
Age 35 to 54	36.8	39.8
55 or older	9.7	8.0
Race/Ethnicity (Percent)		
White	83.8	83.3
Black	12.1	4.3
Hispanic	3.5	7.0
Other	0.6	5.4
Proportion on Recall Stand-by[a]	0.0	14.7
Proportion Full Referral Union Member[a]	0.0	7.8
Pre-UI Industry (Percent)		
Manufacturing	25.8	23.1
Nonmanufacturing	64.0	76.6
Missing	10.2	0.3
Mean Base Period Earnings (Thousands of Dollars)	14.13	15.48
Mean Weekly Benefit Amount (Dollars)	164.1	150.5
Mean Potential UI Duration (Weeks)	25.9	26.9
Mean UI Receipt		
Number of weeks paid	2,387	2,066
Benefits (dollars)	14.94	14.30
Exhaustion rate (percent)	27.7	23.9
Length of initial UI spell (weeks)	12.52	11.37

TABLE I.3 (continued)

Characteristics	Pennsylvania Control Group	Washington Control Group
Proportion Who Applied for UI Benefits in:		
First quarter 1988	0.0	6.0
Second quarter 1988	0.0	34.5
Third quarter 1988	1.2	36.6
Fourth quarter 1988	20.5	23.9
First quarter 1989	23.7	0.0
Second quarter 1989	22.0	0.0
Third quarter 1989	25.6	0.0
Fourth quarter 1989	7.0	0.0
Sample Size	3,354	3,082

NOTE: The sample means presented in this table are not regression-adjusted. The full sample includes 27,616 observations for whom we have data on both demographic characteristics and UI receipt.

[a]This information is relevant only for the Washington sample. Claimants who were on recall stand-by or who accepted employment exclusively through unions were not eligible for the Pennsylvania demonstration.

TABLE I.4

THE CHARACTERISTICS OF THE STATES AND DEMONSTRATION ENROLLMENT SITES

	State	
	Pennsylvania	Washington
Population (1986, in thousands)		
Statewide	11,888	4,132
Total across sites	5,257	3,404
Population per Square Mile (1986)		
Statewide	265	67
Average across sites	693	90
Racial Population Subgroups		
Statewide (1990, percentages):		
Black	9.2	3.1
Hispanic	2.0	4.4
Asian and Pacific Islander	1.2	1.3
Native American, Eskimo, and Aleut	0.1	1.7
Unemployment Rate (Percentage)		
Statewide (1988)	5.1	6.2
Statewide (1989)	4.5	6.2
Across sites (PA 1989, WA 1988)	4.9	6.7
State Employment and Labor-Force Growth		
Employment growth (1988 to 1989)	1.9 %	6.8 %
Labor-force growth (1988 to 1989)	1.3 %	6.8 %
Industry of Employment		
Percent of state total (1988):		
Manufacturing	22 %	18 %
Wholesale and retail trade	23 %	25 %
Finance, insurance, and real estate	6 %	6 %
Services	26 %	23 %
Government	14 %	19 %

TABLE I.4 (continued)

	State	
	Pennsylvania	Washington
New Claims for UI (PA 1989, WA 1988)		
Statewide	1,043,877	464,715
Percent at demonstration sites	20 %	84 %
Average Weekly Wage in UI Covered Employment (1989)		
Statewide	$426	$412
Public Aid Recipients (1989)		
Percent of state population	5.8 %	5.8 %

SOURCES: Employment Security Departments of Pennsylvania and Washington; *County and City Data Book, 1988*, U.S. Department of Commerce; *Statistical Abstract of the United States*, 1990 and 1991, U.S. Department of Commerce; *UI Data Summary*, various issues 1988 and 1989, U.S. Department of Labor.

to differences in the outcomes of interest. As shown in Table I.4, Pennsylvania had a lower unemployment rate (5.1 percent in 1988), but a relatively modest rate of employment growth (1.9 percent between 1988 and 1989). In contrast, Washington had a slightly higher unemployment rate (6.2 percent in 1989), but a much higher rate of employment growth (6.8 percent between 1988 and 1989). Although one cannot determine conclusively which state had more favorable economic conditions based on these statistics, it does appear that the Washington economy was expanding much more rapidly during the demonstration periods.

The distributions of employment by industry were similar in the two states; Pennsylvania had a slightly greater percentage in manufacturing, and Washington a larger share in wholesale and retail trade. Earnings in UI-covered employment and the proportion of the population on public assistance were nearly identical in the two states.

Demonstration enrollment sites in Pennsylvania handled 20 percent of all UI claims activity, while those in Washington handled 84 percent of that state's total. This difference is due in part to differences in the number of sites in which each demonstration operated—12 sites in Pennsylvania versus 21 sites in Washington. Nonetheless, each sample was representative of its state's racial mix, as we discussed above. In addition, despite the moderate coverage of state UI activity in the Pennsylvania demonstration, Corson et al. (1991) report that the insured population in the demonstration sites was representative of the statewide insured population, according to a variety of characteristics.

In our estimation procedures, we used regression methods to control for these differences in the personal characteristics and economic conditions of the Pennsylvania and Washington samples and among individuals within the samples. In the regressions, we controlled directly for several personal characteristics, including gender, age, race, industry of previous employment, and earnings prior to the UI spell. We also controlled for each individual's UI parameters by including the UI weekly benefit amount and potential UI duration in the regressions. Finally, we controlled indirectly for

economic conditions by including indicators for the site and time at which claimants entered the demonstration. The inclusion of these indicators controlled for variations in mean outcomes across sites (and states) and across time, which were due at least in part to differences in the economic conditions at different sites (and states) and across time.

II. BONUS RECEIPT

Claimants who were offered a reemployment bonus and who obtained a job that they believed qualified for a bonus could submit a claim for a reemployment bonus. In both demonstrations, claimants submitted a Notice of Hire when they first obtained a job. If the job appeared to meet the qualifying conditions, the claimants were sent an additional set of forms. Claimants submitted these forms once they had been employed for the required minimum period—16 weeks for the Pennsylvania demonstration and 4 months for the Washington demonstration. Claimants then received a bonus if they met all qualifying conditions. Corson et al. (1991) and Spiegelman et al. (1991) report that this bonus claim process was implemented and operated successfully in the demonstrations.

In this chapter, we examine the rate at which claimants passed through each stage of the bonus claim process in the two demonstrations. We also investigate how the bonus receipt rates varied between the demonstrations and how variations in the bonus parameters affected the bonus receipt rates. Our investigation shows that approximately 13 percent of the claimants who were assigned to a treatment group in either demonstration were paid a bonus. The bonus receipt rates were higher for the more generous bonus offers, with both the amount and the duration of the offer having a significant impact on the bonus receipt rate. In addition, the bonus receipt rates were higher in the Washington demonstration than in the Pennsylvania demonstration. Given the variety of factors that affect claimants in the two demonstrations, it is difficult to determine why bonus receipt rates were higher in Washington than in Pennsylvania. However, our findings do suggest that the bonus receipt rates were sensitive to different program characteristics or different operating environments.

A. BONUS CLAIM ACTIVITY

As shown in Table II.1, approximately 30 to 46 percent of the claimants who were assigned to a treatment group in either of the demonstrations stopped receiving UI benefits within their bonus qualification period, with the rate varying according to the treatment. As expected, in each of the

TABLE II.1

REEMPLOYMENT BONUS CLAIM RATES, BY TREATMENT GROUP

Treatment Group	Percent of Claimants in a Treatment Group Who: Stopped Receiving UI within the Bonus Qualification Period	Submitted a Notice of Hire: As a Proportion of the Previous Category	Submitted a Notice of Hire: As a Proportion of the Full Sample	Were Potentially Eligible Based on the Notice of Hire: As a Proportion of the Previous Category	Were Potentially Eligible Based on the Notice of Hire: As a Proportion of the Full Sample	Submitted a Bonus Voucher: As a Proportion of the Previous Category	Submitted a Bonus Voucher: As a Proportion of the Full Sample	Were Paid a Bonus: As a Proportion of the Previous Category	Were Paid a Bonus: As a Proportion of the Full Sample	Sample Size
Pennsylvania Treatment Groups										
PT1	29.8	39.3	11.7	73.5	8.6	82.6	7.1	97.2	6.9	1,385
PT2	39.0	38.2	14.9	85.2	12.7	88.2	11.2	96.4	10.8	2,428
PT3	31.4	38.5	12.1	81.8	9.9	86.9	8.6	96.5	8.3	1,885
PT4	40.6	46.1	18.7	82.4	15.4	90.3	13.9	97.1	13.5	3,030
All Pennsylvania Treatment Groups Combined	36.5	41.4	15.1	82.1	12.4	87.9	10.9	97.2	10.6	8,728
Washington Treatment Groups										
WT1	30.5	41.0	12.5	88.8	11.1	82.9	9.2	94.6	8.7	2,246
WT2	32.5	55.4	18.0	92.2	16.6	81.3	13.5	91.9	12.4	2,348
WT3	35.3	57.5	20.3	91.6	18.6	89.8	16.7	89.8	15.0	1,583
WT4	42.4	45.8	19.4	89.2	17.3	83.2	14.4	96.5	13.9	2,387
WT5	42.8	53.3	22.8	93.0	21.2	88.7	18.8	94.7	17.8	2,353
WT6	45.8	59.8	27.4	93.8	25.7	91.1	23.4	94.0	22.0	1,535
All Washington Treatment Groups Combined	38.0	51.6	19.6	91.8	18.0	86.1	15.5	94.2	14.6	12,452
All Pennsylvania and Washington Treatment Groups Combined	37.4	47.6	17.8	88.2	15.7	86.6	13.6	94.9	12.9	21,180

NOTE: The reemployment bonus claim rates are not regression-adjusted. The full sample includes 21,180 treatment group members for whom we have data on demographic characteristics.

demonstrations, the rate at which claimants stopped receiving UI within the qualification period was higher for treatments whose qualification periods were longer. The amount of the bonus offer also appears to have affected this UI exit rate, with higher bonus amounts leading to higher UI exit rates.

Because the Pennsylvania and Washington demonstrations operated in different environments and established different eligibility criteria for defining the treatment groups, we would expect that the rates at which treatment group members exited UI and claimed a bonus would also differ between the two demonstrations. Given that PT3 and PT4 in the Pennsylvania demonstration were nearly identical to WT3 and WT6 in the Washington demonstration, we can use these treatment groups to compare bonus claim activities in the two interventions.

A comparison of the UI exit rates for these comparable treatment groups shows that the rates were higher in the Washington demonstration than in the Pennsylvania demonstration. For example, nearly 46 percent of the Washington claimants who were assigned to WT6 exited UI during the qualification period, compared with approximately 41 percent of the Pennsylvania claimants in PT4. That the UI exit rates were higher in the Washington demonstration than in the Pennsylvania demonstration is not surprising, since the Washington sample includes employer- and union-attached workers, who were excluded from the Pennsylvania sample. Since these workers were expected to find new jobs relatively quickly, their inclusion in the Washington sample should increase the UI exit rate for that sample. However, since these claimants were not eligible to receive a bonus payment if they were recalled or found employment through their union, we would not expect that the differences in eligibility criteria would necessarily generate differences in other measures of bonus claim activity.

About 18 percent of the claimants who were assigned to a treatment group submitted a Notice of Hire, as shown in Table II.1. As was the case with UI exit rates, the rates at which Notices of Hire were submitted were higher for treatments in which higher bonus amounts were offered for longer qualification periods. The combined group of Pennsylvania and Washington claimants who

submitted a Notice of Hire represents nearly 50 percent of the claimants who exited UI during their qualification period. Table II.1 also demonstrates that the Washington claimants who exited UI during the qualification period were more likely to submit a Notice of Hire than were Pennsylvania claimants who exited UI. For example, the Notice of Hire submission rates as a percentage of claimants who exited UI were 58 and 60 percent for the WT3 and WT6 groups, compared with 39 and 46 percent for the PT3 and PT4 groups. This finding is surprising, given the inclusion of employer- and union-attached claimants in the Washington demonstration. Since it was made clear that claimants would not be eligible for a reemployment bonus if they were recalled to their pre-UI job or were reemployed through their union, claimants with a previous job or union attachment were probably less likely to submit a Notice of Hire. Thus, one would expect that the inclusion of these claimants would reduce the Notice of Hire submission rate for the Washington demonstration relative to the rate for Pennsylvania. However, our findings run counter to this expectation.

Approximately 88 percent of the claimants who submitted a Notice of Hire in either demonstration were judged to be potentially eligible for the bonus, according to the information on the Notice of Hire. The rate was higher in the Washington demonstration—92 percent, compared with 82 percent in Pennsylvania.

All claimants who were judged to be potentially eligible according to the Notice of Hire were sent a bonus voucher, and about 87 percent of these claimants submitted the voucher after the minimum period of employment. The voucher submission rates as a percentage of claimants who were sent vouchers were similar across the two demonstrations. Nearly 95 percent of the claimants who submitted a bonus voucher in either demonstration were judged to be eligible for a bonus and received a payment. This bonus receipt rate as a percentage of voucher submissions was slightly higher among the Pennsylvania claimants than among the Washington claimants.

Overall, 13 percent of the claimants who were assigned to a treatment group also received a bonus. Again, the highest rates occurred for the high-amount, long-duration bonus offers. The bonus

receipt rates were also higher for the Washington demonstration than for the Pennsylvania demonstration. For example, 22 percent of the Washington claimants in WT6 received a bonus, compared with only 13.5 percent of the claimants in the similar treatment in Pennsylvania (PT4). The numbers in Table II.1 suggest that the differences in the Pennsylvania and Washington receipt rates arise partly because the Washington claimants were more likely to submit a Notice of Hire, and partly because Washington claimants who submitted Notices of Hire were more likely to be judged eligible.

One potential explanation for the higher bonus receipt rate in the Washington demonstration is that the characteristics of claimants in or the operating environments of the two states differed. To investigate this possibility, we calculated regression-adjusted bonus receipt rates based on a model of the probability of bonus receipt. These estimates, which are presented in Table II.2, show that the differential bonus receipt rate in the two demonstrations was even larger after controlling for individual characteristics and the geographical locations of the sample members. Hence, the differential bonus receipt rate cannot be explained by the personal characteristics of claimants in the separate demonstrations. The differences in the bonus receipt rate therefore must be due to either the characteristics of claimants or environmental factors not captured by our regression or to differences in the implementation or operation of the demonstrations.

B. THE IMPACTS OF THE BONUS PARAMETERS ON BONUS RECEIPT

In the previous section, we examined the bonus receipt rate and other measures of bonus claim activity by focusing on the individual treatment groups. An alternative approach is to use measures of the bonus parameters to explain whether individuals received a bonus. To estimate these effects, we entered the appropriate bonus amount (measured in hundreds of dollars) and the bonus duration (measured in weeks) into a regression equation to explain the probability that claimants received a bonus. The sample for which this equation was estimated includes only claimants who were assigned to a treatment group in either of the demonstrations, and the dependent variable in the equation is a binary indicator that equals one if the claimant received a bonus and zero if the claimant did not.

TABLE II.2

REGRESSION-ADJUSTED BONUS RECEIPT RATES, BY TREATMENT GROUP

Treatment Group	Percent of Claimants Paid a Bonus	Sample Size
Pennsylvania Treatment Groups		
PT1	6.9	1,385
PT2	10.5	2,428
PT3	8.2	1,885
PT4	13.4	3,030
All Pennsylvania Treatment Groups Combined	10.4	8,728
Washington Treatment Groups		
WT1	10.4	2,246
WT2	13.9	2,348
WT3	16.5	1,583
WT4	15.5	2,387
WT5	19.2	2,353
WT6	23.3	1,535
All Washington Treatment Groups Combined	17.7	12,452

NOTE: The estimates are based on a linear probability (least squares) model of individual bonus receipt. The sample includes 21,180 treatment group members for whom we have data on both demographic characteristics and bonus receipt. The explanatory variables contained in the regressions include treatment indicators, cohort indicators, office indicators, and demographic and economic variables. The indicator for PT1 was excluded from the regression, and the bonus receipt rate for PT1 presented in this table is the simple unadjusted rate. The bonus receipt rates for the other treatment groups are regression-adjusted rates, derived from using the rate for PT1 as a base for calculating the adjusted rates for the other groups.

The estimates presented in Table II.3 demonstrate that both the amount and the duration of the bonus offer had a significant impact on whether an individual received a bonus. The estimates based on the combined Pennsylvania and Washington bonus offers imply that increasing the bonus amount by $100 would increase the probability of bonus receipt by 0.8 percentage points. A one-week increase in the bonus qualification period would increase the probability of bonus receipt by 0.9 percentage points. Both of the these impacts are statistically significant at the 99 percent confidence level.

The estimates in Table II.3 also show that changes in the bonus amount or duration had a larger impact on the probability of bonus receipt in the Washington demonstration than in the Pennsylvania demonstration. For example, the estimated impact of the bonus amount based on the Washington offers (.94 percent per $100) is more than 50 percent larger than the corresponding estimate for the Pennsylvania offers (.61 percent per $100). The impact of the duration of the bonus offer is also greater for the Washington demonstration than for the Pennsylvania demonstration, by about a one-third.

The findings on the impacts of the amount and the duration of the bonus offer on bonus receipt suggest that the receipt rates for a given bonus offer should differ substantially according to the location of the bonus program. One factor that may explain the differential effects of the bonus amount and the duration of the bonus offer in the two demonstrations is the different economic conditions in the two states. For example, we argued in Chapter I that during the demonstration the Washington economy was expanding at a greater rate than was the Pennsylvania economy. Thus, Washington claimants may have been more likely to become reemployed more quickly in response to a bonus offer because more opportunities for reemployment were available to them. Such differences between the states may have also made Washington claimants more responsive to differences in the amount or duration of the bonus offers in terms of becoming reemployed and receiving a bonus.

TABLE II.3

ESTIMATED IMPACTS OF CONTINUOUS
BONUS PARAMETERS ON PROBABILITY OF BONUS RECEIPT
(Standard Errors in Parentheses)

	Estimates Based on Combined Pennsylvania and Washington Bonus Offers (Percent)	Estimates Based on Pennsylvania Bonus Offers Only (Percent)	Estimates Based on Washington Bonus Offers Only (Percent)
Amount of Bonus Offer (hundreds of dollars)	0.78 ***	0.61 ***	0.94 ***
	(0.09)	(0.11)	(0.11)
Duration of Bonus Offer (weeks)	0.89 ***	0.76 ***	0.99 ***
	(0.08)	(0.12)	(0.11)

NOTE: The estimates presented in this table are based on linear probability (least squares) models of bonus receipt. The sample includes 21,180 treatment group members for whom we have data on both demographic characteristics and bonus receipt. The explanatory variables contained in the regressions include bonus-parameter variables, cohort indicators, office indicators, and demographic and economic variables.

***Statistically significant at the 99 percent confidence level in a two-tail test.

In Table II.4, we use the estimates presented in Table II.3 to calculate predicted bonus receipt rates for four hypothetical bonus offers. For simplicity, we have specified hypothetical bonus offers whose bonus amount and qualification period are constant—the amount and duration of the hypothetical bonus offers do not vary among claimants. The hypothetical offers were chosen so as to encompass the majority of policy-relevant bonus options. We derived the predicted receipt rates from the regression model that underlies Table II.3 by setting the explanatory variables, except the bonus amount and the bonus duration, equal to their sample means. The bonus amount and duration variables were set to the values associated with the particular hypothetical bonus offer of interest. The resulting predicted value can be interpreted as the predicted rate of bonus receipt for the hypothetical bonus offer, other factors being equal.

The hypothetical bonus offers presented in Table II.4 would generate bonus receipt rates of 9 percent to 18 percent, depending on the bonus parameters. Based on our estimates, about 9 percent of the claimants who receive a bonus offer of $500 for a 6-week qualification period would actually receive a bonus. Doubling the bonus amount and duration to $1,000 and 12 weeks would in turn double the bonus receipt rate, to just over 18 percent. The combination of a low amount with a long duration or a high amount with a short duration would yield bonus receipt rates of 14.4 percent and 12.9 percent, respectively.

C. THE IMPACTS OF INDIVIDUAL CHARACTERISTICS ON BONUS RECEIPT

In this section, we investigate how individual characteristics affected the probability of bonus receipt. The estimated effects of individual characteristics on the probability of bonus receipt are based on the coefficients on characteristic variables from the model of bonus receipt discussed in the previous section.

TABLE II.4

PREDICTED BONUS RECEIPT RATES FOR FOUR HYPOTHETICAL BONUS OFFERS, BASED ON THE CONTINUOUS MODEL

Hypothetical Bonus Offer	Amount of Bonus Offer	Duration of Bonus Qualification Period	Predicted Percent of Claimants Paid a Bonus
1	$500	6 Weeks	9.0
2	$500	12 Weeks	14.4
3	$1,000	6 Weeks	12.9
4	$1,000	12 Weeks	18.3

NOTE: The predicted bonus receipt rates are based on the linear probability (least squares) estimates presented in Table II.3. The formula used to calculate the receipt rate is: -0.20 + (AMOUNT $\times$ 0.78) + (DURATION $\times$ 0.89). This formula is derived from setting all explanatory variables in the linear probability equation, except AMOUNT and DURATION, equal to their sample means. AMOUNT and DURATION are set to the appropriate values for the hypothetical bonus offer.

While we can use the estimated coefficients from this model to explain *how* the probabilities of bonus receipt varied among different types of claimants, we cannot use these estimates to explain fully *why* different claimants had different probabilities of bonus receipt. Three factors may explain why the bonus receipt rate among one group of claimants would be higher than the rate among another group, other things being equal. First, a group of claimants may have been relatively more likely to find a job within the qualification period, thus making them more likely to be at least partially eligible to receive a bonus. Second, a group of claimants may have been relatively more likely to find a job that was bonus-eligible. Third, a group of claimants may have been relatively more likely to apply for the bonus. We attempted to separate out the first of these factors by presenting estimated coefficients from a regression model that measured the effect of individual factors on the probability of finding a job within the qualification period. However, in assessing our estimates, we were not able to distinguish fully which of the three factors was responsible for the differential bonus receipt probabilities among different types of claimants. Thus, part of our approach entailed speculating about the specific factors that might explain why the bonus receipt probability for one group of claimants is higher than for another group.

The estimated impacts of individual characteristics on bonus receipt, presented in the second column of Table II.5, show that the gender of a claimant had no impact on the probability of bonus receipt—women received bonuses at about the same rate as did men, other things being equal. The estimates in the first column of Table II.5 show that the bonus receipt rates for men and women were similar despite the fact that men were more likely to exit UI during the bonus qualification period. One explanation for this difference may be that, although men were more likely to exit UI, they were also more likely to be recalled to their previous job and thus more likely to be denied a bonus payment. In this case, women would receive bonuses at the same rate as would men, despite being less likely to find employment and to exit UI during the bonus qualification period.

TABLE II.5

ESTIMATED IMPACTS OF INDIVIDUAL CHARACTERISTICS ON BONUS QUALIFICATION AND BONUS RECEIPT
(Standard Errors in Parentheses)

Explanatory Variable (Binary Indicators)	Estimated Impact on the Probability That a Claimant: Exited UI During the Bonus Qualification Period (Percent)	Received a Bonus Payment (Percent)	Proportion of Sample (Percent)
Gender			
Female	-3.0 ***	-0.3	39.3
	(0.7)	(0.5)	
Race			
Black	1.6	-6.7 ***	7.4
	(1.5)	(1.0)	
Hispanic	-3.0 *	-4.8 ***	5.4
	(1.7)	(1.1)	
Other Nonwhite	2.1	-3.9 ***	3.1
	(2.0)	(1.4)	
Age			
Younger Than 35 Years	7.5 ***	1.4 ***	53.6
	(0.7)	(0.5)	
55 Years or Older	-5.1 ***	-5.6 ***	8.5
	(1.2)	(0.9)	
Job Attachment			
Recall Stand-by[a]	7.1 ***	-8.2 ***	7.9
	(1.4)	(1.0)	
Full Referral Union Member[a]	-1.2	-10.5 ***	4.8
	(1.6)	(1.1)	
Pre-UI Industry			
Manufacturing	1.7 **	-1.6 **	23.8
	(0.8)	(0.6)	

NOTE: The estimates are based on linear probability (least squares) models of UI exit and bonus receipt. The sample includes 21,180 treatment group members for whom we have data on both demographic characteristics and bonus receipt.

[a]Estimated coefficients on these variables are based on Washington claimants only. Claimants who were on recall stand-by or accepted employment exclusively through unions were not eligible for the Pennsylvania demonstration.

* Statistically significant at the 90 percent confidence level in a two-tail test.
** Statistically significant at the 95 percent confidence level in a two-tail test.
*** Statistically significant at the 99 percent confidence level in a two-tail test.

Several other factors had a significant impact on the probability of bonus receipt. Blacks, Hispanics, and other non-white claimants were much less likely to receive a bonus, other things being equal. The largest impact occurred for black claimants, whose probability of receiving a bonus was nearly 7 percentage points lower than the probability for whites. This impact represents more than half of the bonus receipt rate for the full treatment sample, which was equal to 13 percent. The differential bonus receipt rates of whites relative to other racial groups may reflect the difficulty experienced by nonwhite groups in finding reemployment. However, the first column of estimates in Table II.5 show that black claimants and other nonwhite claimants were about as likely as white claimants to exit UI during the bonus qualification period. Hence, the racial differences in bonus receipt rates cannot be attributed to race-specific differences in the average time to reemployment or UI exit. Spiegelman et al. (1991) discussed a similar finding based on the Washington data and concluded that the differences in bonus receipt rates by race must reflect differences in intervening factors that affect either their qualification for the bonus or their probability of applying for the bonus.

Older claimants were significantly less likely than younger claimants to receive a bonus. The impact of being older than 55 years was especially strong; the bonus receipt probability for these older claimants was nearly 6 percentage points lower than the probability for middle-age claimants (35 to 54 years) and 8 percentage points lower than for young claimants (younger than 35 years). The impact of the age indicators probably reflects the ability of younger claimants to find new employment and exit UI more quickly than can older claimants, especially those older than 55. The estimates for UI exit are consistent with this argument, showing that younger workers were more likely than older workers to exit UI during the qualification period.

As expected, claimants who were on recall stand-by or were full referral union members were much less likely than other claimants to receive a bonus. Although these claimants have the potential to become reemployed quickly, they were ineligible to receive a bonus if they returned to their

previous job or found employment through their union. The findings for bonus receipt suggest that many of these claimants maintained their job or union attachment, foregoing the opportunity to receive a reemployment bonus by breaking the attachment and finding a new job.

Claimants were also less likely to receive a bonus if they were previously employed in a manufacturing industry. This finding may also be related to job attachment. Many claimants who were not specified as recall stand-by claimants were still recalled to their previous employer, and the probability of recall is traditionally higher in manufacturing industries than in nonmanufacturing industries. Since recalled claimants were ineligible to receive a bonus, a higher recall probability in manufacturing would reduce the probability of bonus receipt among claimants in manufacturing. An alternative explanation is that manufacturing claimants faced greater difficulty in finding reemployment than their nonmanufacturing counterparts. Based on this explanation, manufacturing claimants were less likely to receive a bonus because they were less likely to become reemployed within the qualification period. However, the findings for UI exit in the first column of Table II.5 show that manufacturing workers were more rather than less likely than nonmanufacturing workers to exit UI during the bonus qualification period. Hence, inter-industry differences in the probability of recall are probably a more reasonable explanation for the lower bonus receipt among manufacturing workers than are inter-industry differences in the timing of reemployment.

III. IMPACTS ON UI RECEIPT

The Pennsylvania and Washington demonstrations were expected to reduce UI benefit receipt among eligible claimants by inducing them to find reemployment quickly. The findings from the demonstration evaluations show that the bonus offers in the two demonstrations generally reduced UI receipt among claimants who received an offer (Corson et al., 1991; and Spiegelman et al., 1991). The largest UI reductions occurred in response to the most generous bonus offers—the highest bonus amounts for the longest qualification periods.

In this chapter, we examine the combined sample of claimants from both of the demonstrations to extend the analysis of UI receipt. Our estimates based on this combined sample confirm the findings presented in the Pennsylvania and Washington final reports—that the bonus offers significantly reduced UI receipt. The average impact of the bonus offers was a reduction in UI receipt of half a week, or $85. The largest impacts occurred in response to the most generous bonus offers with the longest qualification periods, which reduced average UI receipt by about 0.8 weeks, or $140, in the two demonstrations. Our estimates based on the parameters of the bonus offers demonstrate that both the amount and the duration of the bonus offer had a significant impact on UI receipt among claimants.

We also estimated the impacts of the treatments on UI receipt among subgroups of claimants to determine the types of claimants who were affected to the greatest extent by the bonus offers. Our findings demonstrate that the impacts were significantly larger among claimants from nondurable manufacturing industries than among claimants from nonmanufacturing industries. The impacts were also significantly larger among claimants from areas whose unemployment rates were low than among claimants from areas whose unemployment rates were moderate or high. The impacts did not vary significantly across gender, race, or age subgroups.

A. METHODOLOGY

We used four measures of UI benefit receipt for our analysis of the impact of the treatments on UI receipt: (1) the number of weeks for which each claimant was paid benefits in the benefit year, (2) the dollar amount of UI benefits paid to claimants in the benefit year, (3) whether claimants exhausted their benefits, and (4) the number of weeks in the initial UI spell. We considered both weeks paid in the benefit year and weeks in the initial UI spells, in order to distinguish between the impacts which led to temporary withdrawals from UI and the impacts which had longer-term consequences for insured unemployment.

Our simplest regression model for estimating the impacts of the individual bonus offers on UI receipt contained binary indicators for each of the 10 treatments in the demonstrations. We also estimated the impacts of the bonus offers according to the parameters of the offers. Since the bonus offers in the Pennsylvania and Washington demonstrations varied primarily along two dimensions—the amount of the bonus offer and the length of the qualification period—we can evaluate the effect of varying the bonus amount and the duration of the bonus offers on UI receipt. We carried out this analysis by replacing the treatment group indicators in our regressions with a set of explanatory variables that controlled for the amount and the duration of the offer.

The regressions also contained variables to control for the individual characteristics of claimants, the timing of sample selection, and the UI office to which claimants reported. Two factors motivated our using regression-adjusted estimates to control for these factors. First, we used the regressions to control for the timing of sample selection because the proportion of claimants assigned to different treatment groups in the Pennsylvania demonstration varied over time.[1] Hence, despite random assignment, the treatment and control groups differed according to when the claimants in the groups entered the demonstration, on average. Second, the regression estimates allowed us to control for any differences in characteristics that existed between individuals when we measured the impacts of

[1]Corson et al. (1991), Chapter III, discuss the reasons for and the details of the changes in sample allocation.

the treatments. Although random assignment to treatment groups was used within the individual demonstrations, claimants in the Pennsylvania demonstration differed from claimants in the Washington demonstration, as shown in Table I.3 in Chapter I. Therefore, the average characteristics of claimants in a given treatment group depend on the demonstration in which that treatment group participated. Since we estimated impacts based on a sample that contained both Pennsylvania and Washington claimants, we wanted to control as much as possible for the interstate differences in the characteristics of claimants. The regressions also controlled for within-group variation in the characteristics of claimants, which allowed us to derive more statistically precise estimates of the impacts of the treatments.

B. IMPACTS OF INDIVIDUAL TREATMENTS ON UI RECEIPT

The mean UI outcomes for Pennsylvania and Washington claimants presented in Table III.1 show that, in the absence of a reemployment bonus, the control group in Pennsylvania collected UI longer and received more benefits than the control group in Washington. The control group in the Pennsylvania demonstration received an average of nearly 15 weeks of benefits, which was approximately 5 percent more in benefits than the Washington control group members, who received an average of 14.3 weeks of benefits. The differences in dollars of UI receipt were even larger: Pennsylvania control group members received an average of $2,387, compared with an average of $2,066 for Washington control group members—a difference of approximately 15 percent. Pennsylvania control group members were also more likely to exhaust their benefits—27.7 percent among the Pennsylvania control group members, compared with 23.9 percent among the Washington control group members.

These control-group differences in mean UI receipt are at least partly attributable to control-group differences in average UI weekly benefit amounts and potential UI durations. Table I.2 shows that the average weekly benefit amount among the Pennsylvania control group was $14 greater than

TABLE III.1

MEAN UI OUTCOMES BY TREATMENT GROUP

Treatment Group	UI Outcome: Weeks of Benefits Received in Benefit Year	UI Outcome: Dollars of Benefits Received in Benefit Year	UI Outcome: Rate of Benefit Exhaustion (Percent)	UI Outcome: Duration of Initial UI Spell (Weeks)	Sample Size
Pennsylvania Demonstration Groups					
Control Group	14.94	2,387	27.7	12.52	3,354
PT1	14.53	2,363	29.0	12.54	1,385
PT2	14.50	2,336	27.5	11.88	2,428
PT3	14.45	2,323	27.5	12.11	1,885
PT4	14.02	2,247	25.1	11.78	3,030
Washington Demonstration Groups					
Control Group	14.30	2,066	23.9	11.37	3,082
WT1	14.24	2,096	25.1	11.47	2,246
WT2	14.11	2,071	23.6	11.37	2,348
WT3	13.68	1,997	22.7	11.10	1,583
WT4	13.80	2,007	21.0	11.10	2,387
WT5	14.16	2,078	22.6	11.60	2,353
WT6	13.57	1,979	21.6	10.55	1,535

NOTE: The sample means presented in this table are not regression-adjusted. The full sample includes 27,616 observations for whom we have data on both demographic characteristics and UI receipt.

the average weekly benefit amount among the Washington control group. This difference partly explains why Pennsylvania claimants collected more UI dollars than Washington claimants. The difference in potential UI duration, which was one week less among Pennsylvania claimants than among Washington claimants, probably contributed to the higher rate of benefit exhaustion among Pennsylvania claimants. Other things being equal, we would expect that a claimant whose potential UI duration is short would be more likely to exhaust his or her allotment of benefits than would a claimant whose potential UI duration is longer.

Two other factors contributed to the relatively greater UI receipt among Pennsylvania control group members. First, as we argued in Chapter I, the Pennsylvania economy was expanding less rapidly than the Washington economy during the demonstrations. Consequently, Pennsylvania claimants may have had fewer reemployment opportunities than did Washington claimants, and thus Pennsylvania claimants also remained unemployed longer, stayed on UI longer, and received more UI benefits. Second, differences in the eligibility criteria in the demonstrations may also have contributed to the observed differences in UI receipt. For example, the Pennsylvania demonstration excluded claimants who expected to be recalled to their previous job within 60 days, while such claimants were included in the Washington demonstration. Since these claimants were likely to return to work quickly, they were also likely to receive relatively less UI benefits than were other claimants. Thus, the inclusion of these claimants in the Washington demonstration drives down average UI receipt among the Washington sample relative to the Pennsylvania sample. Using regressions to explain UI receipt enabled us to control to some extent for these and other less obvious differences in the demonstrations when we compared average UI receipt among the Pennsylvania and Washington treatment and control groups.

The regression-adjusted impact estimates presented in Table III.2 confirm the findings presented in the Pennsylvania and Washington final reports—that the bonus offers generally reduced UI receipt

TABLE III.2

THE ESTIMATED IMPACTS OF THE TREATMENTS ON UI OUTCOMES
(Standard Errors in Parentheses)

	UI Outcome			
	Weeks of Benefits Received in Benefit Year	Dollars of Benefits Received in Benefit Year	Rate of Benefit Exhaustion (Percent)	Duration of Initial UI Spell (Weeks)
Pennsylvania Treatments				
PT1	-.63 *	-100 *	0.2	-.22
	(.34)	(55)	(1.4)	(.33)
PT2	-.39	-73	0.1	-.58 **
	(.28)	(46)	(1.1)	(.27)
PT3	-.46	-99 **	0.1	-.40
	(.30)	(50)	(1.2)	(.29)
PT4	-.84 ***	-133 ***	-1.6	-.69 ***
	(.26)	(43)	(1.1)	(.26)
Washington Treatments				
WT1	-.04	24	0.8	.07
	(.29)	(48)	(1.2)	(.28)
WT2	-.25	-32	-0.5	-.12
	(.29)	(47)	(1.2)	(.28)
WT3	-.71 **	-118 **	-1.6	-.44
	(.32)	(53)	(1.3)	(.31)
WT4	-.59 **	-116 **	-3.2 ***	-.40
	(.29)	(47)	(1.2)	(.28)
WT5	-.31	-52	-2.0 *	-.02
	(.29)	(47)	(1.2)	(.28)
WT6	-.80 **	-146 ***	-2.1	-.84 ***
	(.33)	(54)	(1.3)	(.32)
Combined Treatments	-.51 ***	-85 ***	-1.0	-.39 ***
	(.15)	(25)	(0.6)	(.15)
Combined Control Group Mean	14.63	2,233	25.9	11.97

NOTE: Estimates are regression-adjusted. The sample includes 27,616 observations for whom we have data on both demographic characteristics and UI receipt. The explanatory variables in the regressions include treatment indicators, cohort indicators, office indicators, and demographic and economic variables.

* Statistically significant at the 90 percent confidence level in a two-tail test.
** Statistically significant at the 95 percent confidence level in a two-tail test.
*** Statistically significant at the 99 percent confidence level in a two-tail test.

in both demonstrations. The average impact of the bonus offers was a reduction in UI receipt of half a week, or $85, per claimant. Both of these estimates are significant at the 99 percent confidence level. The largest impacts occurred for the most generous bonus offers with the longest qualification periods (PT4 in the Pennsylvania demonstration and WT6 in the Washington demonstration). The Pennsylvania treatment PT4 reduced UI receipt by .84 weeks, or by $133. The Washington treatment WT6 reduced UI receipt by .80 weeks, or by $146. These Pennsylvania and Washington impacts represent at least 5 percent of the corresponding average UI outcomes for the combined control group, and the impacts are statistically significant at the 95 or 99 percent confidence levels.

The other treatments, whose bonus amounts and durations were more limited than those in either PT4 or WT6, generated smaller impacts on UI receipt. The estimated reductions in weeks of UI receipt generated by the other bonus offers ranged from .04 weeks for WT1 (low amount, short duration) to .63 weeks for PT1 (low amount, short duration) and .71 weeks for WT3 (high amount, short duration). When measured in dollars of benefits, the impacts of the more limited bonus offers were again less than the impacts of the most generous bonus offers, ranging from an estimated $24 increase in UI receipt for WT1 (low amount, short duration) to an estimated $118 reduction in UI receipt for WT3 (high amount, short duration). The findings for treatments PT1 and WT4 are somewhat anomalous because they imply that two of the smallest-amount bonus offers had relatively large impacts, reducing UI receipt by .63 weeks and .59 weeks (or by $100 and $116), respectively.

The estimated average impact of the bonus offers was a one percentage-point reduction in the proportion of claimants who exhausted their UI benefits, but the estimate is not statistically significant at the 90 percent level. The largest impact on exhaustion occurred in response to WT4 (low amount, long duration), which reduced exhaustion by an estimated 3.2 percentage points. Three other Washington bonus offers, WT3, WT5, and WT6, reduced exhaustion by more than a single percentage point, but only the impact for WT5 is significant at the 90 percent confidence level. For

the Pennsylvania demonstration, only PT4 appears to have reduced exhaustion, although even that estimate is not statistically significant at the 90 percent confidence level.

The final column of numbers in Table III.2 shows that the effects of the bonus offers tended to be weaker in the initial UI spell than over the full benefit year. For all treatments combined, the impact on the duration of the initial UI spell was -.39 weeks, which is less than the average bonus impact on UI weeks in the benefit year (-.51 weeks). Among the individual treatments, only PT2 and WT6 had a greater impact on UI receipt in the initial spell than in the full benefit year. Several treatments (PT1, WT3, and WT5) had much smaller impacts on UI receipt in the initial spell than in the full benefit year.

The differential impacts on weeks in the initial spell and impacts on weeks in the benefit year are difficult to evaluate. One possibility is that the treatments induced claimants to take more stable jobs, reducing the probability that treatment group members received additional UI benefits later in the benefit year. This effect would make the impacts for the benefit year greater than the impacts for the initial spell, as was the case for 8 of the 10 bonus offers, because treatment group members who took more stable jobs would be less likely to experience a second UI spell later in the benefit year. At the very least, the differences between the two sets of estimates imply that treatment group members did not take temporary jobs in order to hasten reemployment and thus qualify for a reemployment bonus.

Overall, our findings on UI receipt suggest that the more generous bonus offers generated larger impacts on UI receipt than did the less generous bonus offers. Based on this finding, we grouped the treatments and found that the average impact of treatments PT4 and WT6—the most generous bonus offers—on weeks of UI receipt was significantly greater than the average impact of the other bonus offers. The estimates demonstrate that the impact of PT4 and WT6, which reduced average UI receipt by .82 weeks, was about double the impact of the other eight bonus offers, which reduced average UI receipt by .41 weeks. The difference between the two estimates is statistically significant

at the 95 percent confidence level. This difference demonstrates that, on average, limiting the bonus offer by shortening the qualification period or by reducing the bonus amount significantly limited the impact of the bonus offer on UI receipt. We investigate this issue in greater detail in the following section.

C. IMPACTS OF THE BONUS PARAMETERS ON UI RECEIPT

The design of the Pennsylvania and Washington demonstrations provides an opportunity to estimate the impacts of the parameters of the bonus offers on UI receipt. Using alternative specifications of the treatment parameters, we can directly analyze the effect of varying the bonus amount (the "price" effect) and the duration of the bonus offer (the "duration" effect). In this section, we use two types of models to control for variations in the bonus parameters—one model that contains a set of indicators to control for the bonus parameters, and one model that contains continuous variables to control for the bonus parameters.

1. Indicator-Based Estimates

We derived our initial estimates of the effects of the bonus parameters on UI receipt from a model that contains three binary variables that define the treatments: one variable that indicates whether or not the individual received any bonus offer, one variable that indicates whether the amount of the bonus was expanded beyond the lower levels, and one variable that indicates whether the duration of the bonus was expanded beyond the lowest levels. As shown in Figure III.1, the expanded-amount offers include treatments PT3 and PT4 in the Pennsylvania demonstration and treatments WT3 and WT6 in the Washington demonstration.[2] The expanded-duration offers include treatments PT2 and PT4 in the Pennsylvania demonstration and WT4, WT5, and WT6 in the

[2]Claimants assigned to the medium-amount treatments in Washington (WT2 and WT5) were grouped with the low-amount treatments because they received a bonus offer that, on average, was only about $110 more than the low-amount offers in Pennsylvania.

Washington demonstration. These definitions imply that two treatments, PT4 and WT6, are treated simultaneously as both an expanded-amount treatment and an expanded-duration treatment.

The estimates based on this specification of the treatments, presented in Table III.3, demonstrate that expanding either the amount or the duration of the bonus offer reduced UI receipt. Relative to the least generous bonus offers, the average effect of expanding the bonus amount in the two demonstrations was a reduction in UI receipt of approximately a third of a week, or $65. Both of these estimates are significant at the 95 percent confidence level. The average effect of expanding the duration of the offer relative to the shortest durations was a reduction in UI receipt of a fifth of a week, or $44. Of these two estimates, only the impact on dollars of benefits is significant at the 90 percent confidence level. Both expanding the bonus amount and expanding the bonus duration significantly reduced the duration of the initial UI spell at the 95 percent confidence level, as shown in the final column of Table III.3.

Expanding the bonus amount had a relatively weak impact on the probability of UI exhaustion, while expanding the duration had a strong impact on exhaustion. Expanding the bonus amount reduced UI exhaustion by a relatively small 0.8 percentage points, and the estimate is not significant at the 90 percent confidence level. In contrast, expanding the bonus duration reduced UI exhaustion by 1.6 percentage points, and the estimate is significant at the 99 percent confidence level. These findings suggest that although both the bonus amount and the duration of the bonus were important determinants of average UI receipt, as discussed earlier, the duration of the bonus was the more important determinant of the extent to which potential UI exhaustees responded to the bonus offer by reducing their UI receipt.

Although the model that we used to create Table III.3 provides more direct estimates of the price and duration effects than does the simple treatment-based model in the previous section, it is also more restrictive, because it implies that the treatments within a given amount/duration category as defined in Figure III.1 generate comparable impacts on UI receipt. The model also implies that

TABLE III.3

THE ESTIMATED IMPACTS OF EXPANDING THE PARAMETERS OF THE BONUS OFFERS ON UI RECEIPT
(Standard Errors in Parentheses)

	UI Outcome			
	Weeks of Benefits Received in Benefit Year	Dollars of Benefits Received in Benefit Year	Rate of Benefit Exhaustion (Percent)	Duration of Initial UI Spell (Weeks)
Estimated Impact of Expanding the Amount of the Bonus Offer	-.35 **	-65 **	-0.8	-.35 **
	(.15)	(25)	(0.6)	(.15)
Estimated Impact of Expanding the Duration of the Bonus Offer	-.20	-44 *	-1.6 ***	-.28 **
	(.15)	(24)	(0.6)	(.14)

NOTE: The estimates are regression-adjusted. The sample includes 27,616 observations for whom we have data on both demographic characteristics and UI receipt. The explanatory variables in the regressions include bonus-parameter indicators, cohort indicators, office indicators, and demographic and economic variables.

* Statistically significant at the 90 percent confidence level in a two-tail test.
** Statistically significant at the 95 percent confidence level in a two-tail test.
*** Statistically significant at the 99 percent confidence level in a two-tail test.

FIGURE III.1

CLASSIFICATION OF TREATMENTS BY BONUS AMOUNT AND DURATION

Pennsylvania Demonstration

Bonus Amount	Qualification Period: 6 Weeks	Qualification Period: 12 Weeks
3 x WBA	PT1	PT2
6 x WBA	PT3	PT4

Washington Demonstration

Bonus Amount	Qualification Period: (.2 x Potential UI Duration) + 1 Week	Qualification Period: (.4 x Potential UI Duration) + 1 Week
2 x WBA	WT1	WT4
4 x WBA	WT2	WT5
6 x WBA	WT3	WT6

Expanded Amount Expanded Duration

Reemployment Bonus Demonstration

the impact of expanding the amount and duration of the bonus offer simultaneously is equal to the sum of the effect of expanding the amount only and the effect of expanding the duration only. We tested both of these restrictions and were unable to reject either of the restrictions for any of the four UI outcomes. Hence, because our statistical tests did not deny the validity of the restrictions placed on the price and duration effects by the model, we conclude that the estimates based on our grouping of the treatments provide useful information about the effects of the bonus amount and duration on UI receipt.

2. Continuous-Model Estimates

An alternative method for estimating the impacts of the bonus parameters on UI receipt is to estimate the effects of the bonus amount and duration directly. To estimate these effects, we entered the bonus amount (measured in hundreds of dollars) and the bonus duration (measured in weeks) into the regression equation. For members of the control group, we set both the bonus amount and the duration of the bonus equal to zero. By using this continuous model, we estimated a price effect that can be measured in per-dollar terms and a duration effect that can be measured in per-week terms.

When we used continuous variables to control directly for the amount and duration of the bonus offers, both continuous variables had a negative impact on all UI outcomes, as shown in Table III.4. Not all of the estimates presented in Table III.4 are statistically significant, but both the amount and the duration had a significantly negative impact on dollars of benefits received. These estimates imply that, other things being equal, increasing the amount of the bonus offer by $100 would reduce average UI receipt by about $7 per claimant. The estimated coefficient on duration implies that extending the duration of the bonus by one week would reduce UI receipt by about $5.50 per claimant.

TABLE III.4

THE ESTIMATED IMPACTS OF THE CONTINUOUS BONUS PARAMETERS ON UI RECEIPT
(Standard Errors in Parentheses)

	UI Outcome			
	Weeks of Benefits Received in Benefit Year	Dollars of Benefits Received in Benefit Year	Rate of Benefit Exhaustion (Percent)	Duration of Initial UI Spell (Weeks)
Amount of Bonus Offer (hundreds of dollars)	-.042 **	-7.17 **	-.042	-.033
	(.021)	(3.47)	(.085)	(.020)
Duration of Bonus Offer (weeks)	-.026	-5.47 *	-.130 *	-.028 *
	(.018)	(2.90)	(.071)	(.017)

NOTE: The estimates are regression-adjusted. The sample includes 27,616 observations for whom we have data on both demographic characteristics and UI receipt. The explanatory variables in the regressions include bonus-parameter variables, cohort indicators, office indicators, and demographic and economic variables.

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

Again, variations in the bonus amount appear to have had a relatively weak effect on whether individuals exhausted their benefits relative to the effect of the bonus duration on the same outcome. The estimated impact of increasing the bonus amount by $100 was less than one-third of the estimated impact of increasing the duration of the bonus by one week. In addition, the magnitude of the estimated coefficient on the bonus amount was less than half that of the corresponding standard error, and thus the estimate does not approach statistical significance at the 90 percent confidence level. In contrast, the estimated coefficient on duration is significant at the 90 percent confidence level.

In Table III.5 we use the estimates presented in Table III.4 to calculate predicted bonus receipt rates for four hypothetical bonus offers. These hypothetical bonus offers match the constant-amount, constant-duration offers for which we estimated predicted bonus receipt rates in Chapter II. The hypothetical bonus offers were chosen so as to encompass the majority of policy-relevant bonus options. The predicted impacts on UI receipt were calculated according to the amount and duration of the hypothetical offer and the estimated coefficients on amount and duration presented in Table III.4.

Given our continuous-model estimates for price and duration effects, all of the hypothetical bonus offers considered in Table III.5 would reduce UI receipt. The least generous hypothetical bonus offer—$500 for a 6-week qualification period—would reduce UI receipt by just over a third of a week, or by $69. The impact on weeks in the initial UI spell is similar to the impact on benefit weeks in the benefit year. All of these estimates are significant at the 99 percent confidence level. The least generous bonus would also significantly reduce the probability of UI exhaustion, by one percentage point.

As expected, the impacts of the hypothetical bonus offers on UI receipt increase as the bonus amount or the duration of the bonus increases. For example, because we specified in our model a

TABLE III.5

THE PREDICTED IMPACTS OF FOUR HYPOTHETICAL BONUS OFFERS ON UI RECEIPT, BASED ON THE CONTINUOUS MODELS
(Standard Errors of Predicted Impacts in Parentheses)

			UI Outcome			
Hypothetical Bonus Offer	Amount of Bonus Offer	Duration of Bonus Qualification Period	Weeks of Benefits Received in Benefit Year	Dollars of Benefits Received in Benefit Year	Rate of Benefit Exhaustion (Percent)	Duration of Initial UI Spell (Weeks)
1	$500	6 Weeks	-.37 ***	-69 ***	-1.0 ***	-.33 ***
			(.09)	(15)	(0.4)	(.09)
2	$500	12 Weeks	-.52 ***	-101 ***	-1.8 ***	-.50 ***
			(.17)	(28)	(0.7)	(.16)
3	$1,000	6 Weeks	-.58 ***	-105 ***	-1.2 *	-.50 ***
			(.17)	(27)	(0.7)	(.16)
4	$1,000	12 Weeks	-.73 ***	-137 ***	-2.0 ***	-.67 ***
			(.18)	(30)	(0.7)	(.18)

NOTE: Predicted impacts are based on the regression-adjusted impact estimates presented in Table III.5.

* Statistically significant at the 90 percent confidence level in a two-tail test.
** Statistically significant at the 95 percent confidence level in a two-tail test.
*** Statistically significant at the 99 percent confidence level in a two-tail test.

linear relationship between the bonus parameters and UI receipt, doubling the bonus amount and duration simply doubles the impact of the bonus offer on UI receipt. As shown in Table III.5, the most generous bonus offer—$1,000 for a 12-week qualification period—has twice the impact of the $500, 6-week bonus offer, reducing UI receipt by .73 weeks, or by $137. Hypothetical bonus offers 2 and 3, which combine a low amount with a long duration or a high amount with a short duration, would reduce UI receipt by a greater amount than the least generous offer but less than the most generous offer.

D. THE IMPACTS ON UI RECEIPT AMONG POPULATION SUBGROUPS

The impacts of a reemployment bonus program on subgroups should be examined for at least two reasons. One is to provide information to policymakers who may consider targeting a reemployment bonus program specifically to select groups of claimant, such as older workers. The other is to be aware of whether treatments benefit some claimants more effectively than others—for example, a program that benefits only one gender or certain racial groups may not be considered good policy even if the overall program is cost-effective.

In this section, we examine estimates of the impacts of the bonus treatments from two distinct yet complementary perspectives. The first set of estimates pertains to each subgroup separately. We calculated these estimates by partitioning the sample into subgroups, and then estimating the impacts of the treatments using a set of characteristic variables to control for differences among claimants within the subgroup. The second set of estimates are derived for each claimant subgroup, controlling for differences in characteristics among claimants, both within each subgroup and *between* subgroups. These estimates are the marginal treatment impacts for the subgroups, which can be used to compare impacts across the subgroups, holding other factors that might affect the treatment constant.

Both sets of estimates are useful for policy purposes.[3] The first perspective provides estimates of the outcomes for a particular group of claimants (for example, the effect of the treatments on older claimants). The second perspective provides an estimate of the marginal treatment effect for a particular group (for example, the effect of the treatment on older claimants, holding constant other factors that may also affect the treatment). The first set of estimates should guide policy when the characteristics for subgroups are not expected to vary significantly over time or by location; for example, if older claimants are expected to remain more educated and more likely to be male over time and by location. If, on the other hand, the characteristics of subgroups are expected to vary over time or by location, the second set of estimates can help direct policy. The second set of estimates also provides information on the factors that, other things being equal, are the most important determinants of how claimants respond to bonus offers.

Table III.6 presents the impacts of the treatments on weeks and dollars of UI receipt in the benefit year for subgroups defined by the following characteristics: gender, age, race, industry, and area unemployment rate. These estimates combine all of the treatment groups in Pennsylvania and Washington into a single combined treatment group, yielding a single overall estimate of the treatment impact for each subgroup.

The subgroup analysis of impacts by gender, age, and race revealed no significant differences across subgroups for each characteristic. Only a few of the estimated impacts among these subgroups are statistically significant, and all these significant estimates measure about a one-half week reduction in UI receipt under either estimation perspective. For example, the data yielded estimates of the treatment impacts for young, middle-age, and older claimants of about a one-half week reduction in UI receipt under either estimation perspective.

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[3]Estimates controlling for variations in the characteristics of claimants within the subgroup are the type presented in the Washington final report. Estimates controlling for variations in the characteristics of claimants within and between the subgroups are presented in the Pennsylvania final report.

TABLE III.6

THE AVERAGE IMPACTS OF THE TREATMENTS ON UI RECEIPT BY SUBGROUP

Subgroup	Impacts for Subgroup: Weeks of Benefits Received in Benefit Year	Impacts for Subgroup: Dollars of Benefits Received in Benefit Year	Marginal Impacts for Subgroup: Weeks of Benefits Received in Benefit Year	Marginal Impacts for Subgroup: Dollars of Benefits Received in Benefit Year	Sample Size
Male	-0.49 **	-93 **	-0.48 **	-88 **	16,708
Female	-0.53 **	-66 *	-0.47 *	-59	10,908
Younger than 35 Years	-0.59 **	-75 **	-0.53 **	-69	10,490
Ages 35 to 54 Years	-0.40 *	-85 **	-0.40	-82 *	14,754
55 Years or Older	-0.47	-92	-0.48	-97	2,372
White	-0.45 **	-85 **	-0.42 **	-74 **	23,203
Black	-0.80	-62	-0.81	-94	2,107
Hispanic	-0.46	-39	-0.40	-60	1,472
Other Nonwhite	-1.37	-141	-1.17	-137	834
Nonmanufacturing	-0.27	-52 *	-0.25	-44	21,100
Durable Manufacturing	-0.93 **	-155 **	-0.95 **	-155 **	3,906
Nondurable Manufacturing	-1.74 **##	-241 **##	-1.55 **##	-214 **##	2,710
Low Unemployment Rate	-0.89 **	-165 **	-0.71 *	-151 **	10,360
Moderate Unemployment Rate	-0.19 ##	-38 ##	-0.17	6 ##	10,048
High Unemployment Rate	-0.54	-40 #	-0.57 *##	-84 *##	7,208

NOTE: The regression equation also included interactions of the treatment indicators and the indicators for quarter of enrollment, and noninteracted regressors to control for base period earnings, UI weekly benefit amount, potential benefit duration, recall status, and union-hiring status.

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

The treatment impact is significantly different from the subgroup excluded in the category at the 90 percent confidence level in a two-tail test. For each characteristic the excluded subgroup is the first one listed.
The treatment impact is significantly different from the subgroup excluded in the category at the 95 percent confidence level in a two-tail test. For each characteristic the excluded subgroup is the first one listed.

Whites were the only racial subgroup to exhibit a statistically significant response to the bonus offer, with an average reduction in UI receipt of one-half week. However, the estimated reduction in weeks of UI receipt among the other racial subgroups were as large or larger than the impact among whites. The reduction in UI weeks among Hispanics was roughly equal to that among whites.[4] The reduction in UI weeks among blacks was nearly double that among whites, while the response by the other nonwhite racial group (which includes Asians, native Americans, and Pacific Islanders) was nearly triple that among whites. But due to the small size of the Hispanic, black, and other nonwhite racial subgroups, none of the estimated impacts for these groups differs significantly from zero or from the impact for whites.

A significant difference in the effects of the treatments by industry of previous employment was observed, with the strongest response for manufacturing.[5] Reductions in UI dollars and weeks were significantly greater for claimants whose previous job was in nondurable manufacturing than for claimants from outside manufacturing. As shown in Table III.6, the estimated reduction in UI receipt for treatment group claimants from nondurable manufacturing was -1.7 weeks, and the marginal impact estimate was slightly smaller (-1.6 weeks). On average, the bonus offers reduced UI receipt among claimants from durable manufacturing by nearly a week, while the bonus offers reduced UI receipt among claimants from outside manufacturing by about one-quarter of a week. If it is true that most dislocated workers were previously employed in manufacturing, then these results are consistent

[4]The notable distinction in the impact estimates for racial subgroups in the Pennsylvania and Washington final reports was for Hispanics. In Pennsylvania, the marginal treatment impact for Hispanics was +0.31 weeks; in Washington, the treatment impact on Hispanics was -1.25. Of the 1,472 Hispanics in the merged sample, only 436 were from Pennsylvania; thus, the Washington treatment impact dominates.

[5]We formed the industry subgroups according to the two-digit Standard Industrial Classification codes as follows: nonmanufacturing: 01-19 and 40-99; durable manufacturing: 24-25 and 32-38; and nondurable manufacturing: 20-23, 26-29, 30-31, and 39.

with the relatively strong results for dislocated workers presented in the Washington final report.[6] The greater reduction in weeks of UI receipt for claimants from nondurable as opposed to durable manufacturing may reflect the relative flexibility and adaptability of workers from nondurable manufacturing.

Perhaps the most striking result in the subgroup analysis pertains to the differential response according to the local unemployment rate. To investigate this variation in the estimated impacts, we combined the Pennsylvania and Washington enrollment sites into low-, moderate-, and high-unemployment rate areas based on the local total unemployment rate.[7]

Our estimates based on this grouping demonstrate that the treatment-induced reduction in UI receipt in moderate- and high-unemployment rate areas was significantly smaller than the reduction in the low-unemployment areas. This result is consistent with the view that a reemployment bonus is most effective when reemployment opportunities are relatively abundant, as reflected by low local unemployment rates. While the two methodologies yield somewhat different estimates of the impact on dollars of UI receipt among these subgroups, they yield nearly identical results for weeks of UI receipt.[8]

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[6]A complete subgroup analysis of dislocated workers was not possible with the merged data, since dislocation in Washington was defined according to patterns of retrospective earnings, and these data were not available for claimants enrolled in the Pennsylvania demonstration.

[7]Based on our grouping, the 9 low-unemployment (under 5 percent) sites were the Pennsylvania sites Butler, Coatesville, Lancaster, McKeesport, and Reading, and the Washington sites Bellevue, Lynnwood, North Seattle, and Renton. The 15 moderate-unemployment (5 to 7 percent) sites were the Pennsylvania sites Erie, Lewiston, Philadelphia-North, Philadelphia-Uptown, Pittston, and Scranton, and the Washington sites Auburn, Bellingham, Bremerton, Everett, Mount Vernon, Olympia, Rainier, Spokane, and Walla Walla. The 9 high-unemployment (over 7 percent) sites were the Pennsylvania site Connelsville, and the Washington sites Aberdeen, Cowlitz County, Lewis County, Moses Lake, Sunnyside, Tri-cities, Wenatchie, and Yakima.

[8]To examine the impact of the bonus treatments by quarter of enrollment, we also combined the Pennsylvania and Washington claimants into groups by calendar quarter after the start of the demonstrations. The largest treatment impact, an average reduction of more than 1.5 weeks, occurred among claimants enrolled in the first quarter of the demonstrations. The impact on dollars of compensation was significantly smaller for claimants enrolled in every subsequent quarter. This result for the pooled sample is similar to that in the Pennsylvania and Washington final reports, and the cause is not obvious.

IV. IMPACTS ON EMPLOYMENT AND EARNINGS

Because the bonus offers significantly reduced UI receipt, as demonstrated in Chapter III, we also expected to observe an increase in employment and earnings. Given that bonuses were paid only to claimants who found reemployment, the bonus offers must have reduced UI receipt because they induced claimants to become reemployed more rapidly. If claimants who received bonus offers became reemployed more quickly, they should also have experienced greater levels of employment and earnings following their benefit application. In this chapter, we examine employment and earnings during the year following claimants' benefit application to determine whether this impact occurred.

Our estimates provide only weak evidence that any of the reemployment bonus offers increased the postapplication employment and earnings of claimants assigned to the treatments. On average, the bonus offers did not increase either employment or earnings significantly. During the year following benefit application, treatment group members received an average of only $7 more in earnings than control group members. In terms of individual treatments, the earnings impacts were more positive for the high-amount, long-duration bonus offers than for the less generous bonus offers, although the impact estimates even for the most generous bonus offers are not statistically significant. Additional estimates based on the parameters of the bonus offers suggest that the amount, but not the duration, of the bonus offer significantly affected earnings.

A. DATA AND METHODOLOGY

Our analysis of the impacts of the bonus offers on employment and earnings was based on two quarterly measures drawn from the UI wage records: (1) whether claimants were employed, and (2) the earnings of claimants. For the Pennsylvania claimants, the employment indicator was whether a claimant was reported as having positive weeks of work in the quarter. For the Washington

claimants, the employment indicator was whether a claimant was reported as having positive hours in the quarter.

We measured employment and earnings for the calendar quarters following the benefit application date for each individual. The first quarter that we examined was the quarter in which claimants applied for benefits. Although employment and earnings data for this quarter partly reflect claimants' experience with pre-UI employers, random assignment implies that pre-UI employment and earnings during this quarter should not vary significantly across treatment groups within each demonstration. Hence, any significant cross-group differences in employment or earnings in the quarter of benefit application should be attributable to the impact of the treatment on postapplication employment or earnings.

We used the UI wage records to measure employment and earnings because these data were available for both demonstrations. Interview data on employment and earnings were also available for the Pennsylvania demonstration, but not for the Washington demonstration. Based on the findings of Corson et al. (1991), who used both wage records and interview data to investigate employment and earnings in the Pennsylvania demonstration, we believe that the wage records provide useful information for evaluating the impacts of the bonus offers on employment and earnings. Corson et al. (1991) used wage records as well as interview data primarily because UI wage records were available for all claimants in their sample, thus allowing for broader coverage of the claimant sample in their analysis of earnings.

Although we believe that the UI wage records are a useful source of employment and earnings data, they do have some shortcomings for our analysis. One important shortcoming is 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 Bonus Demonstration showed that the impact of the bonus offer occurred soon after the benefit application

date (Corson et al., 1989; and Corson and Decker, 1990). In our analysis, we attempt to address this shortcoming by presenting 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 were employed outside the UI-covered sector (for example, those who were self-employed). Because our analysis of employment and earnings would include such individuals as if their employment and earnings were zero, the impact estimates would be biased toward zero. Further, the wage records report earnings when they are received, not when they are earned. Claimants may have received severance pay or pension pay-outs from their pre-UI employer after they applied for benefits. These payments would be misinterpreted as earnings from a post-UI job, overstating the earnings received by claimants following their benefit application date.[1]

We attempted to minimize the effect of these shortcomings of the wage records data by excluding claimant observations whose earnings were greater than $100,000 in any quarter of observation. This rule excluded 67 observations from our analysis sample of 27,616 claimants, and all but one of the excluded claimants were from the Washington demonstration.

B. THE IMPACTS OF INDIVIDUAL TREATMENTS ON EMPLOYMENT AND EARNINGS

In the absence of a reemployment bonus, the control group claimants in Washington received greater earnings after benefit application than did the control group claimants in Pennsylvania. Table IV.1 shows that, during the four-quarter period of observation, Washington control group members received an average of about $12,000, while Pennsylvania control group members received only $9,300 over the comparable period.

[1]Decker (1989) and Corson et al. (1991) discuss these and related shortcomings of UI wage records data.

TABLE IV.1

MEAN EARNINGS, BY TREATMENT GROUP
(Dollars)

Treatment Group	Period of Observation[a]					Sample Size
	Quarter of Benefit Application	Quarter 1	Quarter 2	Quarter 3	Total	
Pennsylvania Demonstration Groups						
Control Group	2,649	1,698	2,351	2,605	9,303	3,354
PT1	2,598	1,735	2,289	2,434	9,055	1,385
PT2	2,863	1,840	2,388	2,658	9,749	2,427
PT3	2,662	1,833	2,378	2,702	9,575	1,885
PT4	2,673	1,790	2,517	2,725	9,705	3,030
Washington Demonstration Groups						
Control Group	3,058	2,581	3,121	3,270	12,030	3,063
WT1	3,066	2,381	3,049	3,269	11,765	2,236
WT2	3,084	2,536	3,009	3,408	12,036	2,340
WT3	3,038	2,622	3,100	3,455	12,216	1,576
WT4	3,056	2,654	3,038	3,326	12,074	2,373
WT5	3,049	2,532	3,083	3,332	11,996	2,349
WT6	3,048	2,759	3,384	3,568	12,758	1,531

NOTE: The sample means presented in this table are not regression-adjusted. The full sample includes 27,549 observations for whom we have data on both demographic characteristics and employment and earnings. We excluded observations with earnings greater than $100,000 in any quarter.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit application.

Two factors explain the differential earnings of the control groups in the two demonstrations. First, on average, the Washington claimants were more highly paid than the Pennsylvania claimants before their respective layoffs, as shown in Table I.3 in Chapter I. We would expect that this difference in earnings would remain as claimants in both states became reemployed. Second, Washington claimants appear to have become reemployed more quickly than the Pennsylvania claimants. As shown in Table IV.2, the rate of employment for the three quarters following benefit application was higher for Washington claimants than for Pennsylvania claimants.[2] Since unemployed claimants received zero earnings, the relatively low employment rates for the Pennsylvania claimants contributes to the relatively low earnings levels experienced by these claimants.

Our regression-adjusted estimates of the impacts of the treatments on employment provide no evidence that individual bonus offers enhanced the employment of claimants. As shown in Table IV.3, more than half of the estimated impacts of individual treatments on the quarterly probability of employment had a negative sign. Only 4 of the 40 estimated quarterly impacts are statistically significant at the 95 percent confidence level, and only 1 of these 4 significant estimates is positive. The combined impacts of the treatments show that treatment group members had a slightly lower probability of employment in each of the quarters than did control group members, although none of these quarterly differences is significant.[3]

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[2]The higher reemployment rates for Washington were due partly to the inclusion of stand-by recall claimants in the Washington demonstration. Since these claimants expected to be recalled to their pre-UI employer after a brief period of unemployment, the inclusion of these claimants in the Washington demonstration increased the overall employment rates for Washington claimants relative to the Pennsylvania demonstration, which excluded stand-by recall claimants.

[3]Despite the lack of significant impacts on the probability of employment, the bonus offers may still have increased employment by increasing the length of employment within the quarters without changing the probability of any employment in the quarters. Since we were unable to construct this type of quarterly employment measure for Washington claimants, we did not investigate this issue. However, for the Pennsylvania demonstration, Corson et al. (1991) reported that none of the bonus offers significantly increased weeks of employment in any of the postapplication quarters.

TABLE IV.2

MEAN EMPLOYMENT RATES, BY TREATMENT GROUP
(Percent)

Treatment Group	Period of Observation[a]				Sample Size[b]
	Quarter of Benefit Application	Quarter 1	Quarter 2	Quarter 3	
Pennsylvania Demonstration Groups					
Control Group	84.1	59.0	67.3	70.6	3,353
PT1	82.4	57.0	66.5	67.7	1,385
PT2	84.3	60.5	67.0	68.6	2,428
PT3	84.5	59.6	67.1	71.3	1,885
PT4	83.9	60.2	68.5	70.8	3,030
Washington Demonstration Groups					
Control Group	81.7	65.9	70.5	72.0	3,082
WT1	80.3	64.3	67.8	71.4	2,246
WT2	80.7	63.4	69.0	71.3	2,348
WT3	80.4	64.1	71.8	74.0	1,583
WT4	80.4	64.5	69.2	70.8	2,387
WT5	80.6	64.2	69.0	71.6	2,353
WT6	81.3	67.4	71.6	73.1	1,535

NOTE: The sample means presented in this table are not regression-adjusted. The full sample includes 27,616 observations for whom we have data on both demographic characteristics and employment.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit application.

[b]Due to missing data, the sample sizes for the Pennsylvania groups vary slightly according to the period of observation.

TABLE IV.3

THE ESTIMATED IMPACTS OF THE TREATMENTS ON THE PROBABILITY OF EMPLOYMENT
(Standard Errors in Parentheses)
(Percent)

Treatment	Period of Observation[a]			
	Quarter of Benefit Applicaton	Quarter 1	Quarter 2	Quarter 3
Pennsylvania Treatments				
PT1	-0.9	-1.7	-0.8	-2.9 **
	(1.2)	(1.5)	(1.5)	(1.4)
PT2	0.0	1.1	-0.5	-2.2 *
	(1.0)	(1.3)	(1.2)	(1.2)
PT3	0.3	0.5	-0.4	0.6
	(1.1)	(1.4)	(1.3)	(1.3)
PT4	-0.8	0.5	-0.1	-0.8
	(1.0)	(1.2)	(1.1)	(1.1)
Washington Treatments				
WT1	-1.1	-1.1	-2.5 *	-0.4
	(1.0)	(1.3)	(1.3)	(1.2)
WT2	-0.9	-1.9	-1.2	-0.5
	(1.0)	(1.3)	(1.2)	(1.2)
WT3	-0.9	-1.0	1.7	2.5 *
	(1.2)	(1.5)	(1.4)	(1.4)
WT4	-1.0	-0.8	-0.9	-1.0
	(1.0)	(1.3)	(1.2)	(1.2)
WT5	-0.7	-0.6	-0.9	0.1
	(1.0)	(1.3)	(1.2)	(1.2)
WT6	-0.6	1.5	0.9	1.0
	(1.2)	(1.5)	(1.4)	(1.4)
Combined Treatments	-0.6	-0.2	-0.5	-0.6
	(0.5)	(0.7)	(0.7)	(0.6)
Combined Control Group Mean	83.0	62.3	68.8	71.3

NOTE: The sample includes approximately 27,610 observations for whom we have data on both demographic characteristics and employment. Due to missing data on employment, the sample sizes vary slightly according to the period of observation. The explanatory variables in the regressions include treatment indicators, cohort indicators, office indicators, and demographic and economic variables.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit applicaton.

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

Similarly, the treatments appear not to have increased the earnings of claimants significantly. Over the entire period of observation, treatment group members in the two demonstrations received an average of only $7 more in earnings than did control group members, as shown in the bottom right-hand corner of Table IV.4. 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 were more positive than the impacts of the less generous offers, but the estimated impacts for even the most generous bonus offers were not significantly greater than zero.[4]

The lack of consistently positive impacts of the treatments on employment and earnings is somewhat surprising given the apparent treatment-induced reductions in UI receipt that were discussed in the previous chapter. However, the estimates of the impacts on employment and earnings are, for the most part, statistically insignificant. This statistical insignificance does not show that the treatments had no positive impact on employment and earnings, rather it simply implies that we have no evidence that such impacts occurred. The statistical insignificance of the estimates is at least partly attributable to the large standard errors of the estimates. Even a substantial positive impact on earnings, such as the $300 increase in earnings that we estimated for WT6, does not differ significantly from zero given the large standard errors associated with our estimates. This finding also implies that we should not place too much emphasis on the negative point estimates contained in Tables IV.3 and IV.4.

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[4]We also analyzed the impacts of the treatments on total earnings by population subgroup, using the same methodology as we used to evaluate UI impacts by subgroup in Chapter III. The only significant treatment impact on earnings occurred for claimants whose previous job was in nondurable manufacturing. Earnings for this group were estimated be have increased by an average of $880 per claimant in response to the combined treatments. The impact for these claimants from nondurable manufacturing industries was also significantly different from the $142 reduction estimated for claimants from outside manufacturing. Earnings for workers from durable manufacturing were estimated to have increased by $300 in response to the treatments, but this impact is not statistically significant. These results are consistent with the estimates of the treatment impacts on UI receipt by industry that were reported in Chapter III.

TABLE IV.4

THE ESTIMATED IMPACTS OF THE TREATMENTS ON EARNINGS
(Standard Errors in Parentheses)
(Dollars)

Treatment	Period of Observation[a]				
	Quarter of Benefit Applicaton	Quarter 1	Quarter 2	Quarter 3	Total
Pennsylvania Treatments					
PT1	-20	19	-89	-199 **	-289
	(103)	(98)	(96)	(97)	(272)
PT2	117	87	-25	-14	165
	(86)	(81)	(80)	(81)	(226)
PT3	-19	116	-11	56	141
	(92)	(88)	(86)	(87)	(244)
PT4	-32	70	81	53	171
	(81)	(77)	(75)	(76)	(214)
Washington Treatments					
WT1	11	-178 **	-60	1	-226
	(89)	(85)	(83)	(84)	(236)
WT2	-36	-54	-143 *	100	-134
	(88)	(84)	(82)	(83)	(232)
WT3	-24	63	-19	176 *	196
	(100)	(94)	(93)	(94)	(262)
WT4	-74	36	-138 *	-9	-186
	(88)	(83)	(82)	(83)	(232)
WT5	-98	-42	-70	24	-186
	(88)	(83)	(82)	(83)	(232)
WT6	-134	102	143	189 **	300
	(101)	(95)	(94)	(95)	(265)
Combined Treatments	-22	26	-29	31	7
	(46)	(44)	(43)	(43)	(121)
Combined Control Group Mean	$2,844	$2,119	$2,719	$2,922	$10,605

NOTE: The sample includes 27,549 observations for whom we have data on both demographic characteristics and earnings. We excluded observations with earnings greater than $100,000 in any quarter. The explanatory variables in the regressions include treatment indicators, office indicators, and demographic and economic variables.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit applicaton.

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

C. IMPACTS OF THE BONUS PARAMETERS ON EARNINGS

Although the individual treatments appear not to have had a significant impact on earnings, our finding that the more generous offers were more likely to increase earnings suggest that we may be able to detect a significant relationship between the bonus parameters and earnings. Using the same specifications of the treatment parameters as we used to evaluate the impacts on UI receipt in Chapter III, we can analyze the effects of varying the amount (the price effect) and the duration (the duration effect) of the bonus offer on earnings. We again use two types of models to control for variations in the bonus parameters—one model in which indicators are used to control for the bonus parameters, and one model in which continuous variables are used to control for the bonus parameters.

The model used in our indicator-based estimates of the price and duration effects on earnings was equivalent to the model used to estimate the price and duration effects on UI receipt in Chapter III (see Table III.3). The estimates based on this specification of the treatments, which are presented in Table IV.5, demonstrate that expanding the bonus amount significantly increased earnings receipt during the postapplication period. Relative to the least generous bonus offers, the effect of expanding the bonus amount in the two demonstrations was an increase in earnings of $307 during the entire postapplication period. This estimated impact of expanding the bonus amount was significant at the 95 percent confidence level. The estimated impacts on earnings in individual quarters 1, 2, and 3 are also significant at the 95 percent confidence level. Relative to the effect of expanding the bonus amount, expanding the bonus duration had a small impact on earnings, and the estimate is not statistically significant.

When we used continuous variables to control directly for the amount and duration of the bonus offers, again only the amount of the bonus offer had a significantly positive impact on earnings. The estimates presented in Table IV.6 imply that, other things being equal, a $100 increase in the amount of the bonus offer would increase average earnings by $28 during the four quarters of observation.

TABLE IV.5

ESTIMATED IMPACTS OF EXPANDING
THE PARAMETERS OF THE BONUS OFFERS ON EARNINGS
(Standard Errors in Parentheses)
(Dollars)

	Period of Observation[a]				
	Quarter of Benefit Application	Quarter 1	Quarter 2	Quarter 3	Total
Estimated Impact of Expanding the Amount of the Bonus Offer	-53 (48)	92 ** (45)	133 *** (44)	135 *** (45)	307 ** (125)
Estimated Impact of Expanding the Duration of the Bonus Offer	-27 (45)	61 (43)	56 (42)	9 (42)	99 (118)

NOTE: Estimates are regression-adjusted. The sample includes 27,549 observations for whom we have data on both demographic characteristics and earnings. We excluded observations with earnings greater than $100,000 in any quarter. The explanatory variables in the regressions include bonus-parameter indicators, cohort indicators, office indicators, and demographic and economic variables.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit application.

**Statistically significant at the 95 percent confidence level in a two-tail test.
***Statistically significant at the 99 percent confidence level in a two-tail test.

TABLE IV.6

ESTIMATED IMPACTS OF THE BONUS PARAMETERS
ON EARNINGS IN A CONTINUOUS MODEL
(Standard Errors in Parentheses)
(Dollars)

	Period of Observation[a]				
	Quarter of Benefit Application	Quarter 1	Quarter 2	Quarter 3	Total
Amount of Bonus Offer	-4.98	8.89	6.50	17.97 ***	28.38 *
(hundreds of dollars)	(6.48)	(6.14)	(6.04)	(6.11)	(17.10)
Duration of Bonus Offer (weeks)	-1.30	-0.38	-2.78	-6.65	-11.12
	(5.41)	(5.13)	(5.04)	(5.10)	(14.27)

NOTE: Estimates are regression-adjusted. The sample includes 27,549 observations for whom we have data on both demographic characteristics and earnings. We excluded observations with earnings greater than $100,000 in any quarter. The explanatory variables in the regressions include bonus-parameter variables, cohort indicators, office indicators, and demographic and economic variables.

[a]Quarters 1, 2, and 3 are the first, second, and third full calendar quarters after benefit application.

*Statistically significant at the 90 percent confidence level in a two-tail test.
***Statistically significant at the 99 percent confidence level in a two-tail test.

Following the quarter of benefit application, each of the quarterly estimates of the effect of the bonus amount was positive, but only the effect in quarter 3 is statistically significant.

In Table IV.7 we present the predicted impacts of four hypothetical bonus offers on earnings receipt based on the estimated price and duration effects presented in Table IV.6. The hypothetical bonus offers in Table IV.7 match the hypothetical bonus offers discussed in Chapters II and III.

As expected, the impacts of the hypothetical bonus offers on earnings increase as the amount of the offers increases, and the impacts decrease as the duration increases. However, none of the estimates differs significantly from zero at the 90 percent confidence level. The least generous hypothetical bonus offer—$500 for a 6-week qualification period—would increase earnings by an estimated $75, but this predicted impact is not statistically significant. Due to the linear model, the predicted impact of the $1,000, 12-week bonus offer is equal to twice the impact of the least generous bonus offer at $149, but this predicted impact is also not statistically significant. The largest impact on earnings occurs for hypothetical bonus offer 3, which offers $1,000 for 6 weeks. This high-amount, short-duration offer would increase earnings by an estimated $217.

The statistical insignificance of the predicted impacts of the hypothetical bonus offers on earnings is not surprising given that none of the actual treatments tested in Pennsylvania or Washington were found to have a statistically significant impact on earnings. Despite this statistical insignificance, the magnitudes of the predicted impacts are consistent with the estimated impacts on UI receipt presented in Chapter III. However, the large standard errors of the predictions make it impossible to detect a relatively modest impact on earnings.

TABLE IV.7

PREDICTED IMPACTS OF FOUR HYPOTHETICAL BONUS OFFERS ON EARNINGS, BASED ON THE CONTINUOUS MODELS
(Standard Errors of Predicted Impacts in Parentheses)

Hypothetical Bonus Offer	Amount of Bonus Offer	Duration of Bonus Qualification Period	Predicted Impact on Earnings (Dollars)
1	$500	6 Weeks	75 (75)
2	$500	12 Weeks	8 (136)
3	$1,000	6 Weeks	217 (136)
4	$1,000	12 Weeks	150 (149)

NOTE: Predicted impacts are based on the regression-adjusted impact estimates presented in Table IV.6. The impacts are based on total earnings received during the quarter of benefit application and the three subsequent quarters.

V. CONCLUSION

In 1988 and 1989, demonstrations of reemployment bonus offers to unemployment insurance (UI) program applicants were conducted in Pennsylvania and Washington. These two field tests of a UI bonus differed somewhat according to claimant eligibility conditions and the terms of the bonus offers, but these differences were superseded by similarities that allowed us to merge the sample of claimants in the separate demonstrations. This report presented our analysis of a merged sample of 27,616 claimants who were found to be eligible for the demonstrations.

A. SUMMARY OF RESPONSES TO THE BONUS OFFERS

Claimants who were assigned to one of the demonstration treatments were told that they would receive a specific lump-sum cash payment if they started a new job by a certain date and remained on that job for a specified minimum period (16 weeks in Pennsylvania, and 4 months in Washington). In both demonstrations, the bonus qualification period was either short (3 weeks in Pennsylvania, and an average of 5.7 weeks in Washington) or long (12 weeks in Pennsylvania, and an average of 11 weeks in Washington), and the bonus amount was calculated as a multiple of each claimant's weekly benefit amount (WBA). Pennsylvania tested low and high multiples (three times and six times) of the WBA, while Washington tested three multiples (two, four, and six times) of the WBA. To examine the behavior of claimants based on the merged sample, we compared the combined control group with the various treatment groups to measure several effects: the effect of each treatment separately, the effect of all treatments combined, the effect of increasing the dollar bonus amount (the price effect), and the effect of increasing the duration of the bonus offer (the duration effect).[1]

[1]We estimated the price effect and the duration effect in two different ways. First, we estimated the effects as a response to a discrete increase in the cash bonus amount and the bonus qualification period. Second, we estimated the effects in a model in which the dollar bonus offer and the weeks in the qualification period were measured continuously.

In our analysis, we examined participation in the experiment and various aspects of response to the bonus offer. The principal measure of participation that we studied was the proportion of claimants who received a bonus after becoming reemployed within their qualification period. The degree of response to a bonus offer was measured by the impact of the offer on UI receipt, employment, and earnings of treatment group members.

Overall, about 13 percent of the claimants assigned to a treatment in either demonstration returned to work within the bonus qualification period and received a bonus. Among the individual treatments, the rate of bonus receipt ranged from 7 percent for the low-amount, short-duration bonus offer in Pennsylvania to 22 percent for the high-amount, long-duration bonus offer in Washington. Our estimates based on continuous measures of the amount and the duration of the bonus showed that both of these dimensions of the bonus offer significantly affected the probability of bonus receipt. The estimates imply that increasing the bonus amount by $100 would increase the probability of bonus receipt by 0.8 percentage points, and increasing the duration of the bonus by one week would increase the probability of bonus receipt by 0.9 percentage points. The probability of bonus receipt appears to have been greater in Washington than in Pennsylvania for similar treatments. This finding suggests that bonus receipt, while affected by the amount and duration of the bonus offer, is also sensitive to different program characteristics and different operating environments.

The bonus offers tested in the demonstrations significantly reduced UI receipt during the benefit year. Among the individual treatments, the impacts on UI receipt ranged from a negligible increase of $24 for the low-amount, short-duration bonus offer in Washington to a $146 reduction for the high-amount, long-duration offer in Washington. The combined average impact of the treatments was a reduction in UI receipt of $85 per claimant. Estimates based on the continuous measures of the bonus amount and the duration of the bonus suggest that both of these dimensions significantly affected the amount of UI benefits received. The estimates imply that increasing the bonus amount

by $100 would reduce average UI receipt by about $7 per claimant, while increasing the bonus duration by one week would reduce average UI receipt by about $5.50 per claimant.

We also found that the impacts of the bonus offers on UI receipt were largest among claimants who were previously employed in manufacturing industries and among claimants from areas whose unemployment rates were relatively low. The impacts of the treatments on UI receipt did not vary significantly according to gender, age, or race.

Because the bonus offers reduced UI receipt, we also expected to observe an increase in employment and earnings among claimants assigned to the treatments, but we found no clear evidence of such an increase. On average, the employment and earnings of treatment group members were nearly the same as for the control group. During the year after benefit application, treatment group members earned an average of only $7 more than control group members. However, the impacts of the most generous bonus offers were more positive than the impacts of the less generous offers. Because of this relationship, we estimated that earnings would increase with the dollar amount of a bonus offer.

B. EVALUATION OF NET BENEFITS

To guide policymakers in applying the results of the pooled analysis and to summarize the findings, this section presents a comprehensive analysis of the net benefits of a reemployment bonus in the UI program. We present estimates of the net benefits (benefits minus costs) for four hypothetical bonus offers, encompassing the four possible combinations of two bonus amounts ($500 and $1,000) and two bonus qualification periods (6 weeks and 12 weeks). We use constant-amount, constant-duration bonus offers so that the impacts of the bonus offers on the outcomes used to evaluate net benefits can be calculated based on the estimated continuous models presented in Chapters II, III, and IV. For each hypothetical bonus offer, we analyze net benefits from the perspective of claimants, employers, the UI trust funds, the government as a whole, and society as a whole.

Our computations of net benefits rely on the predicted impacts of each of the hypothetical bonus offers on bonus receipt, UI receipt, and earnings, which we presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991). The tables in Appendix A list each individual benefit and cost, by perspective, for each of the hypothetical bonus offers. Table V.1 contains the sum of all benefits and costs for each of the hypothetical bonus offers, by perspective. Given that the estimates of net benefits in Table V.1 are based on simple continuous models of the outcomes and on hypothetical bonus offers rather than actual bonus offers, we consider the estimates to represent only rough predictions of the net benefits that would be generated by the hypothetical bonus offers.

The four hypothetical bonus offers on which Table V.1 is based would, with one exception, yield positive net benefits for claimants and for society as a whole. For the two $1,000 bonus offers, claimants would receive bonus payments that, on average, exceed the UI benefits that they would forego. Consequently, because our predictions imply that the bonus offers would also yield a modest increase in the earnings of claimants, the claimants would receive estimated net benefits from both $1,000 bonus offers. For the two $500 bonus offers, claimants would receive bonus payments that are somewhat lower than the benefits they would forego. However, because the bonus offers would also increase earnings slightly, claimants would receive net benefits from the $500, 6-week offer, and would nearly break even from the $500, 12-week offer. Society would also receive net benefits from the bonus offers, with the exception of the $500, 12-week offer, which would yield net losses to society. The $1,000, 6-week bonus offer would yield the largest net benefits for both claimants and for society.

The hypothetical bonus offers are generally not cost-effective from the perspective of the UI system, although the UI system would nearly break even in response to the two $500 bonus offers. The estimated costs of administering and paying the hypothetical bonus offers exceeds the estimated

TABLE V.1

ESTIMATED NET BENEFITS OF FOUR HYPOTHETICAL BONUS OFFERS, BY PERSPECTIVE
(Dollars per Claimant)

Hypothetical Bonus Offer	Perspective				
		Government			
	Claimant	UI Trust Funds	Other Government	Government Total	Society
1 - $500, 6 Weeks	51	-7	15	8	59
2 - $500, 12 Weeks	-15	-2	-4	-7	-21
3 - $1,000, 6 Weeks	219	-54	66	12	231
4 - $1,000, 12 Weeks	173	-75	52	-23	150

NOTE: The numbers in the table are taken from Tables A.1 to A.4. The estimated benefits and costs of the bonus offers are based on the estimated continuous models of bonus receipt, UI receipt (in dollars), and earnings presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991).

bonus-induced reduction in benefits. The bonus offers would thus generate net losses to the UI trust funds, although the net losses for the two $500 offers would be $7 or less. Despite the estimated net losses to the UI trust funds, two of the bonus offers—those with a qualification period of 12 weeks—would generate positive net benefits for the government as a whole.

Several factors may affect the actual net benefits that would be generated by an ongoing program. First, bonus offers could have different impacts in economic environments that differ from the economic environments of Pennsylvania and Washington during the demonstrations. Second, some claimants who stopped collecting UI within the bonus qualification periods in Pennsylvania and Washington did not claim a bonus. Presumably, a greater percentage of claimants might claim a bonus in an ongoing program, where the bonus would be part of the regular UI system, thereby increasing the costs of an ongoing program beyond our estimates. Third, displacement might prevent any positive impacts on net benefits from occurring in an ongoing program. Displacement would occur if a bonus-induced reduction in UI receipt were offset by an increase in unemployment and UI receipt among claimants or other unemployed workers who do not receive a bonus offer. These claimants may compete for a limited number of job vacancies, precluding any reduction in UI receipt or increase in earnings. Such an outcome would affect the benefit-cost impacts of an ongoing program.

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APPENDIX A

SUPPLEMENTAL BENEFIT-COST TABLES

TABLE A.1

BENEFIT-COST ANALYSIS OF HYPOTHETICAL
BONUS OFFER 1 ($500, 6 WEEKS)
(Dollars per Claimant)

	Perspective					
			Government			
Benefits and Costs	Claimant	Employer	UI Trust Funds	Other Government	Government Total	Society
Market Output and Wages						
Increased Output	0	91	0	0	0	91
Wages and Fringe Benefits[a]	91	-91	0	0	0	0
Tax Payments						
Claimants' Taxes	-16	0	1	15	16	0
Income Support Payments						
UI Payments	-69	0	69	0	69	0
Other Payments	0	0	0	0	0	0
Administrative Costs of Income Support Programs						
UI Payment Administration	0	0	1	0	1	1
Administration of Other Programs	0	0	0	0	0	0
Demonstration Costs						
Reemployment Bonuses	45	0	-45	0	-45	0
Local Office Labor Costs	0	0	-18	0	-18	-18
Central Office Labor Costs	0	0	-10	0	-10	-10
Other Costs (Direct and Indirect)	0	0	-5	0	-5	-5
Sum of Measured Benefits and Costs	51	0	-7	15	8	59

NOTE: The estimated benefits and costs of the bonus offer are based on the estimated continuous models of bonus receipt, UI receipt (in dollars), and earnings presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991). The Pennsylvania estimate was used because we believe it represents the best estimate of the administrative costs of an ongoing bonus program. The sums of the rows or columns of the table may not add due to rounding.

[a]The change in total wages and fringe benefits is calculated by adjusting the estimated impacts of the treatments on average earnings to include additional fringe benefits earned by treatment group members and additional payroll taxes paid by both the employer and employee.

TABLE A.2

BENEFIT-COST ANALYSIS OF HYPOTHETICAL
BONUS OFFER 2 ($500, 12 WEEKS)
(Dollars per Claimant)

	Perspective					
			Government			
Benefits and Costs	Claimant	Employer	UI Trust Funds	Other Government	Government Total	Society
Market Output and Wages						
Increased Output	0	10	0	0	0	10
Wages and Fringe Benefits[a]	10	-10	0	0	0	0
Tax Payments						
Claimants' Taxes	5	0	0	-4	-5	0
Income Support Payments						
UI Payments	-101	0	101	0	101	0
Other Payments	0	0	0	0	0	0
Administrative Costs of Income Support Programs						
UI Payment Administration	0	0	1	0	1	1
Administration of Other Programs	0	0	0	0	0	0
Demonstration Costs						
Reemployment Bonuses	72	0	-72	0	-72	0
Local Office Labor Costs	0	0	-18	0	-18	18
Central Office Labor Costs	0	0	-10	0	-10	-10
Other Costs (Direct and Indirect)	0	0	-5	0	-5	-5
Sum of Measured Benefits and Costs	-15	0	-2	-4	-7	-21

NOTE: The estimated benefits and costs of the bonus offer are based on the estimated continuous models of bonus receipt, UI receipt (in dollars), and earnings presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991). The Pennsylvania estimate was used because we believe it represents the best estimate of the administrative costs of an ongoing bonus program. The sums of the rows or columns of the table may not add due to rounding.

[a]The change in total wages and fringe benefits is calculated by adjusting the estimated impacts of the treatments on average earnings to include additional fringe benefits earned by treatment group members and additional payroll taxes paid by both the employer and employee.

TABLE A.3

BENEFIT-COST ANALYSIS OF HYPOTHETICAL
BONUS OFFER 3 ($1,000, 6 WEEKS)
(Dollars per Claimant)

	Perspective					
			Government			
Benefits and Costs	Claimant	Employer	UI Trust Funds	Other Government	Government Total	Society
Market Output and Wages						
Increased Output	0	263	0	0	0	263
Wages and Fringe Benefits[a]	263	-263	0	0	0	0
Tax Payments						
Claimants' Taxes	-69	0	3	66	69	0
Income Support Payments						
UI Payments	-105	0	105	0	105	0
Other Payments	0	0	0	0	0	0
Administrative Costs of Income Support Programs						
UI Payment Administration	0	0	1	0	1	1
Administration of Other Programs	0	0	0	0	0	0
Demonstration Costs						
Reemployment Bonuses	129	0	-129	0	-129	0
Local Office Labor Costs	0	0	-18	0	-18	-18
Central Office Labor Costs	0	0	-10	0	-10	-10
Other Costs (Direct and Indirect)	0	0	-5	0	-5	-5
Sum of Measured Benefits and Costs	219	0	-54	66	12	231

NOTE: The estimated benefits and costs of the bonus offer are based on the estimated continuous models of bonus receipt, UI receipt (in dollars), and earnings presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991). The Pennsylvania estimate was used because we believe it represents the best estimate of the administrative costs of an ongoing bonus program. The sums of the rows or columns of the table may not add due to rounding.

[a]The change in total wages and fringe benefits is calculated by adjusting the estimated impacts of the treatments on average earnings to include additional fringe benefits earned by treatment group members and additional payroll taxes paid by both the employer and employee.

TABLE A.4

BENEFIT-COST ANALYSIS OF HYPOTHETICAL
BONUS OFFER 4 ($1,000, 12 WEEKS)
(Dollars per Claimant)

	Perspective					
			Government			
Benefits and Costs	Claimant	Employer	UI Trust Funds	Other Government	Government Total	Society
Market Output and Wages						
Increased Output	0	182	0	0	0	182
Wages and Fringe Benefits[a]	182	-182	0	0	0	0
Tax Payments						
Claimants' Taxes	-55	0	2	52	55	0
Income Support Payments						
UI Payments	-137	0	137	0	137	0
Other Payments	0	0	0	0	0	0
Administrative Costs of Income Support Programs						
UI Payment Administration	0	0	1	0	1	1
Administration of Other Programs	0	0	0	0	0	0
Demonstration Costs						
Reemployment Bonuses	183	0	-183	0	-183	-0
Local Office Labor Costs	0	0	-18	0	-18	-18
Central Office Labor Costs	0	0	-10	0	-10	-10
Other Costs (Direct and Indirect)	0	0	-5	0	-5	-5
Sum of Measured Benefits and Costs	173	0	-75	52	-23	150

NOTE: The estimated benefits and costs of the bonus offer are based on the estimated continuous models of bonus receipt, UI receipt (in dollars), and earnings presented in Chapters II, III, and IV. Administrative costs are based on the average estimated administrative costs of the Pennsylvania treatments, which are described in Corson et al. (1991). The Pennsylvania estimate was used because we believe it represents the best estimate of the administrative costs of an ongoing bonus program. The sums of the rows or columns of the table may not add due to rounding.

[a]The change in total wages and fringe benefits is calculated by adjusting the estimated impacts of the treatments on average earnings to include additional fringe benefits earned by treatment group members and additional payroll taxes paid by both the employer and employee.

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