

Are Reemployment Services Effective in Periods of High Unemployment? Experimental Evidence from the UI System

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Abstract

This paper examines the effectiveness of a random assignment design reemployment program that was implemented by the state of Nevada during the recent recession. The program required a random sample of new Unemployment Insurance (UI) recipients to attend a meeting at the start of their claim, in which they underwent a UI eligibility review and, if they passed the review, were offered an array of personalized reemployment services. Failure to show up or reschedule this interview disqualified them for further UI benefit payments. The program was found very effective in reducing average UI duration and producing UI savings. It also led to positive impacts on the probability of employment and on wages earned in the entire six-quarter period following UI entry. Program impacts are partly attributable to the effect of the mandatory interview, which reduced the moral hazard associated with UI benefit availability by pushing out new UI recipients who presumably were job ready or unwilling to actively search for work. But the results also show that program impacts are attributable to the fact that the services themselves were effective in expediting recipients' reemployment and in helping recipients get relatively high-paying jobs.

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Introduction

In the past 80 years, US policymakers have established a variety of reemployment assistance programs to help jobseekers identify their occupational skills, learn how to sell those skills in the labor market, and connect to employers with workforce needs that fit those skills. Interest in reemployment assistance programs has grown tremendously in the 1990s and 2000s, a period in which the US economy experienced three economic downturns culminating in the 2007-2009 Great Recession, the worst recession since the Great Depression. As a response to the Great Recession, the Federal government has in fact invested heavily in reemployment assistance programs as part of its overall strategy to facilitate the economic recovery. Although there are a few studies that examine the effectiveness of reemployment programs in the 1990s and 2000s, this study is the first to provide evidence on whether such programs were actually effective in assisting displaced workers get reemployed and exit Unemployment Insurance (UI) in the Great Recession. This is an important issue since there are reasons to doubt the effectiveness of such programs when the job market as a whole is weak and displaced workers have limited reemployment opportunities.

This paper examines a reemployment program implemented by the Nevada Department of Employment, Training, and Rehabilitation from July 2009 through December 2009, a period in which the average unemployment rate in the state was 13.9 percent, the highest in over three decades. There are two key factors that make the Nevada program a compelling case study. First, this program required new UI recipients to attend a one-on-one meeting with state workforce staff in the first three weeks of their claim, in which they: 1) underwent a UI eligibility review to confirm they were indeed qualified for benefits and were actively searching for a job; and if determined eligible, 2) were offered an array of personalized reemployment services designed to enhance the quality of their job search. Failure to attend or reschedule the meeting rendered them ineligible for further benefit receipt. The second reason why the Nevada case study is so compelling is that random assignment was used to

select a group of new UI recipients for participation in the reemployment program (treatment group), leaving the remaining new UI recipients in the regular UI program (i.e., as a control group).

This paper takes advantage of the design of the Nevada program to produce evidence on the effectiveness of reemployment services during the recent recession. The analysis relies on Nevada UI administrative data and wage records for all displaced workers who started collecting UI benefits from July 2009 through December 2009 and were eligible for reemployment services. These data are used to produce key post-UI entry outcomes for treatment and control group members, including: total UI weeks of benefit collection, total benefit amounts collected, and quarterly wages earned. Through treatment-control comparisons in outcomes, the analysis examines whether the program was effective in reducing UI spells, producing savings for the UI Trust Fund, and leading to improved reemployment outcomes. In addition, the paper examines the underlying mechanisms that led to program impacts, namely, whether the positive impacts were produced because the requirement to receive services pushed some recipients out of UI or because services were themselves effective in enhancing the quality of the recipients' job search.

The remainder of this paper is organized as follows. Section 1 provides an historical overview of US reemployment policy, with a focus on reemployment policy in the 1990s and 2000s. Section 2 provides a detailed description of the Nevada reemployment program, including program design, the random assignment process, services provided to treatment group recipients, and data used for the analysis. Section 3 presents the impact analyses and a discussion of the results. Section 4 summarizes the findings and draws conclusions.

1. Background

1.1. US Reemployment Policy Through the 1980s

Reemployment policy in the US was initiated largely as a response to the Great Depression, when

US Congress enacted the Wagner-Peyser Act of 1933. This Act established the national Employment Services (ES) system, a network of local employment offices administered by state agencies under the oversight of the US Department of Labor (DOL). The core function of the ES system was to act as a labor exchange to connect jobseekers to available public and private sector jobs that matched their individual skills and work experience. The expectation was that ES would contribute to reducing the labor market costs of matching workers to jobs and help jobseekers get reemployed during a period of very high unemployment (Haber and Kruger, 1964; Altmeyer, 1966). The ES role was expanded with the establishment of the UI system in 1935, when local employment offices were tasked with registering UI recipients and administering benefit payments. In addition, ES staff referred UI recipients not attached to an employer to available jobs and offered them basic reemployment services, such as individual skills assessment and job counseling, to assist them in making appropriate job choices (Jacobson, 1994; Balducci et al., 1997). ES was also responsible for administering the UI work test to verify recipient compliance with state-specific work search requirements. This test involved reviewing recipient work search activities and informing the state UI agency when a recipient did not comply with state requirements, including not conducting an active job search, refusing a job referral, and rejecting an appropriate job offer (Adams, 1969; Johnson et al., 1983).

In the 1960s, a decade in which the US unemployment rate declined from 6.7 percent in 1961 to 3.5 percent in 1969, employment policy turned toward worker training. With the enactment of the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962, ES was tasked to develop training programs that would retrain workers in economically depressed areas, undereducated workers, and workers displaced due to technological innovation, to obtain the skills needed for placement in in-demand jobs (Levitan and Mangum, 1969, LaLonde, 2003). To fulfill its new role, ES gave lower priority to reemployment services and higher priority to collecting

information on local employer workforce needs and using Federal funds to establish training programs that would help workers to meet those needs (Kulik, 1994; Jacobson, 1994).

The Comprehensive Employment and Training Act of 1973 (CETA) initiated a significant shift in the development and delivery of reemployment and training services. CETA provided states with grants to develop programs to help economically disadvantaged, under-educated, and displaced workers fill local workforce needs. CETA's rationale was that state employment agencies were in a better position than Federal agencies to assess local labor market needs and create customized programs to address those needs (LaLonde, 2003; Balducci et al., 2007). CETA was later replaced by the Job Training Act of 1982 (JTPA), which maintained the principle of decentralized development and delivery of reemployment and training programs. Consequently, while DOL retained oversight of the ES system, state agencies were ultimately responsible for the types of reemployment and training services offered to jobseekers and the role of local employment offices in the service delivery process. Due to these changes, the ES role in worker training was largely eliminated, and the system returned to its original role as the main provider of labor exchange and reemployment services (Jacobson, 1994; Balducci et al., 2007). The resulting decline of ES funding combined with the development of automated job banks in the 1980s led to a reduction in the number of displaced workers receiving face-to-face services from local employment office staff. As a result, only a small fraction of UI recipients received in-person services, raising concerns about whether the ES system was adequately used to help recipients find jobs and reduce their dependency on UI (Wandner 2010).

1.2. US Reemployment Policy in the 1990s and 2000s

Since the early 1990s, policymakers have paid great attention to identifying strategies that promote the exposure of UI recipients and other jobseekers to reemployment services, and to enhancing the role of local employment offices in the service delivery process. In 1993, Congress enacted the Worker Profiling and Reemployment Services (WPRS) program, which required state UI agencies to establish

a profiling system to identify which recipients were most likely to exhaust benefits and refer them to reemployment services at the start of their claim.¹ The expectation was that early exposure of likely exhausters to services would help them find a job and exit UI quickly, and thus lead to reductions in average UI spells and savings for the UI Trust Fund (Decker et al., 1997; Berger et al., 2000). State implementation of WPRS varied in the proportion of recipients referred to services as well as the types of services offered. Since WPRS became fully operational in 1996,² about 12 percent of eligible recipients were referred to services, with nearly half the states referring less than 10 percent and nearly a fifth of states referring at least 30 percent of eligible recipients (Decker et al., 1997; Wandner, 2008). DOL's recommendation to states was to send a letter to referred recipients, inviting them to attend an orientation meeting to learn about available services at local employment offices, and then be exposed to specific services, including the UI work test, individual skills assessment and job counseling, job search workshops, access to automated job banks, and referrals to job openings. However, many states provided only a subset of those services and most recipients were exposed to no more than one or two services (Dickinson et al., 1999; Wandner, 2010).³

With the enactment of the Workforce Investment Act of 1998 (WIA), Congress made a significant step toward integrating reemployment and training services by requiring states to provide the full range of reemployment and training services through the ES system. To emphasize this objective, local employment offices were renamed One-Stop Career Centers. The expectation was that consolidating service delivery under one roof would improve the cost-effectiveness of existing programs through reductions in administrative costs and by offering participants a wider array of services in a single visit

¹ Following DOL recommendations (Worden, 1994), most states adopted a statistical model to estimate the likelihood of exhausting benefits using historic UI data. For a review of state profiling models see Decker et al. (1997) and Sullivan et al. (2007).

² DOL selected five states in 1994 (Delaware, Florida, Kentucky, New Jersey, and Oregon) to develop pilot WPRS programs. Using those pilot programs, DOL helped the remaining states develop their own programs. WPRS became operational in all states by mid-1996 (Wandner, 2008).

³ Notably, the majority of referred recipients did attend orientation meetings at local employment offices. Thus, one could argue that WPRS was successful in informing recipients about the services made available to them through the ES system.

(LaLonde, 2005; Wandner, 2010). Since WIA took effect in 2000, it has replaced JTPA as the funding vehicle for training programs, and provided states with an annual average total of \$3.1 billion in 2000-2008 for training program development and administration. These funds were in addition to the annual average of \$761 million provided by Wagner-Peyser during the same period to support the provision of reemployment services (Wandner, 2010). Notably, under WIA states maintained their capacity to develop and implement their own reemployment and training programs by leveraging Federal funds, with the stipulation that they submit a detailed workforce policy agenda to DOL for review and approval (LaLonde, 2003; D'Amico et al., 2004).

By the early 2000s, UI systems had become highly automated through the introduction of telephone and internet systems that allowed displaced workers to apply for UI benefits and submit information about their job search activities without physically interacting with One-Stop Career Center staff (O'Leary and Wandner, 2005; O'Leary, 2006). Although such automation was a welcome development in reducing administrative costs, DOL was concerned that it provided recipients with an incentive to misrepresent their work history to qualify for UI and/or the intensity of their work search activities once they start collecting benefits. An additional concern was that, with the exception of WPRS-referred recipients, the majority of recipients were unaware of available reemployment services offered by One-Stop Career Centers.

To address these concerns, in 2005 DOL started the Reemployment and Eligibility (REA) Initiative, which required new UI recipients to attend an in-person meeting with One-Stop Career Center staff at the start of their claim. In that meeting, recipients would undergo a UI eligibility review to confirm they were qualified for benefits and were actively searching for a job while collecting benefits, and receive information on available reemployment services. Recipients who failed to attend the meeting, deemed ineligible for benefits based on their work history, or did not comply with state work search requirements were disqualified from receiving additional UI payments. The expectation

was that in-person UI eligibility reviews would promote the reemployment of recipients by encouraging them to exert the effort required to find a job and informing them of available services they could use to enhance their job search (Benus et al., 2008; Poe-Yamagata et al., 2011).

At its inception in 2005, REA was implemented by 21 states with annual total funding support of \$18 million; since then, the program has expanded and is currently implemented by 40 states with annual funding support of more than \$50 million (Poe-Yamagata et al., 2011). This funding was used by states to cover all costs associated with program implementation, including the process used to refer eligible recipients to UI eligibility reviews and One-Stop Career Center staff salaries and other costs for conducting the reviews. Notably, most states used REA funds to conduct UI eligibility reviews of recipients who were not already referred to reemployment services by WPRS; a few states used REA funds to conduct UI eligibility reviews of recipients who stayed on UI for long periods even after receiving reemployment services (Benus et al., 2008).

At the end of 2007, the US economy entered its worst recession since the Great Depression. According to the Bureau of Labor Statistics, the US unemployment rate increased from 5 percent in December 2007 to a peak of about 10 percent by the end of 2009. As a result, the total number of displaced workers starting a UI claim and the total regular UI benefit amounts collected increased from 7.7 million and \$22 billion in 2007 to 13.9 million and \$80 billion in 2009, respectively.⁴ To facilitate the recovery of the US economy, in February 2009 Congress passed the American Recovery and Reinvestment Act of 2009 (ARRA). This Act had a number of UI provisions, including extensions of the number of UI weeks available to recipients through activation of the Emergency Unemployment Compensation (EUC) program⁵ and full Federal financing of Extended Benefits (EB).⁶ Moreover,

⁴ Source: Quarterly UI Data Summary reports, 2007 and 2009: <http://ows.doleta.gov/unemploy/content/data.asp>.

⁵ EUC is a federally funded program enabling states to provide UI recipients who exhausted regular UI benefits up to an additional 14 benefit weeks; up to an additional 28 weeks if the state unemployment rate was at least 6 percent; up to an additional 37 weeks if the rate was at least 7 percent; and up to an additional 47 weeks if the rate was at least 9 percent.

ARRA authorized nearly \$4.4 billion to help increase the number of displaced and disadvantaged workers receiving reemployment services from the ES system (\$400 million) and training services from WIA programs (\$4.0 billion). These amounts were in addition to the annual average of \$3.5 billion provided to states from 2009 through 2013 under Wagner-Peyser and WIA to provide reemployment and training services to displaced and disadvantaged workers.⁷ These figures show the importance policymakers placed on reemployment assistance and worker training programs in facilitating the recovery of the US economy from the Great Recession.

1.3. Recent Evidence on the Effectiveness of Reemployment Programs

Despite the growing interest in reemployment assistance programs in the 1990s and 2000s, relatively few studies provide quantitative evidence on the effectiveness of such programs over this period. Klepinger et al. (2002) used data from a DOL-funded demonstration implemented in Maryland in January-December 1994 to assess the impact of alternative UI work search requirements on recipient UI spells and employment.⁸ At the time, UI recipients in Maryland were required to contact two employers per week and keep records of those contacts as evidence of their work search efforts. The study showed that simply informing recipients that records of employer contacts would be verified by UI staff led to a reduction in UI spells by 0.9 weeks and in benefit amounts collected by \$113. Requiring recipients to contact four employers per week instead of two reduced UI spells and benefit amounts collected by similar amounts: 0.7 weeks and \$116, respectively. The study also showed that requiring recipients to attend a 16-hour job search workshop in addition to the existing work search requirement reduced UI spells by 0.6 weeks and benefit amounts collected by \$75. The authors note

⁶ EB is a permanently authorized program, financed jointly by states and the Federal government, which enables states to provide recipients who exhausted regular UI benefits with up to 13 additional benefit weeks. States with very high unemployment rates may also opt to pay an additional 7 benefit weeks.

⁷ Source: US Department of Labor Detailed Budget Documentation, FY 2009 – FY 2013.

⁸ The Maryland UI Work Search Demonstration was a random assignment study implemented in six Maryland One-Stop Career Centers in January-December 1994. See Klepinger et al. (1998) for a detailed discussion.

that these impacts were not due to the fact that additional requirements enhanced recipient job search abilities; rather, the requirements increased the opportunity cost of collecting UI and pushed recipients out of the program who were not facing significant obstacles in finding a new job.

Black et al. (2003) provided experimental impact estimates of the Kentucky WPRS program using data on recipients who started collecting UI from October 1994 through June 1996. At the time, Kentucky used a statistical model to calculate recipient profiling scores and referred to services those with the highest scores; this created a profiling score cutoff below which no recipients were referred to services. In the event that more than one recipient was at the cutoff and there were not enough resources to treat them all, random assignment was used to determine who would be referred to services. Using this experimental design, the authors found that treated recipients collected 2.2 fewer UI weeks and \$143 lower benefit amounts than untreated recipients.⁹ They also found that, as a result of exiting UI earlier than their peers, treated recipients had higher earnings following program entry. The program's impact occurred within the first few weeks of the UI claim, which coincided with the period when recipients received the notification letter that they were required to receive services. Based on this, the study argues – consistent with the Klepinger et al. (2002) conclusions – that the program's impact is attributable to the *threat of reemployment services*, which pushed job-ready UI recipients out of the program, and not to the effectiveness of actual service receipt in helping recipients get reemployed.

In 1999, DOL released the national evaluation of WPRS, which examined the impact of WPRS programs in Connecticut, Illinois, Kentucky, Maine, New Jersey, and South Carolina in the period 1996-1997 (Dickinson et al., 1999). Using quasi-experimental methods, the study reported that WPRS programs in these states led to statistically significant reductions in average UI spells by 0.21 to 0.98 weeks and in benefit amounts collected by \$56 to \$140. The study found no evidence that WPRS was

⁹ Although these represent accurate impact estimates for individuals around the profiling score cutoff point, they do not necessarily apply to recipients at the top of the profiling score distribution or, more generally, to all profiled recipients.

effective in improving the employment prospects and wage outcomes of recipients after UI exit. The study also showed that although WPRS programs in these states were effective in informing most referred recipients about availability of services, due to limited resources recipients were offered no more than one or two services instead of the full range of services as the program intended. Thus, the low program impacts in this case may be attributable to the fact that recipients were not exposed to *comprehensive* reemployment services.¹⁰

The above studies provide interesting findings about the efficacy of reemployment programs. A common theme is that they examined programs that exposed recipients to a limited bundle of services. In the Maryland study, recipients were subject to stringent work search requirements but were not exposed to comprehensive personalized services, while most states in the WPRS studies provided only one or two services to recipients. More importantly, these studies were conducted from 1994 through 1997, a period of moderate unemployment,¹¹ when presumably displaced workers were in a position to find suitable job opportunities and thus were not in great need of reemployment services. Therefore, we cannot rely on the results of existing work to draw inference on the effectiveness of providing comprehensive personalized services to UI recipients during periods of high unemployment and particularly during the recent recession. Were reemployment programs effective in facilitating the quick UI exit and reemployment of recipients during the weak labor market that characterized the recent recession? Were program impacts driven by the fact that services increased the opportunity cost of recipients to stay on UI or because they were actually effective in enhancing the quality of the recipients' job search? Did program impacts on UI duration translate into improved employment and wage outcomes? The objective of this paper is to address these questions.

¹⁰ This study shows that Kentucky provided limited services to WPRS-referred recipients, and far fewer services relative to other states. So, the Black et al. (2003) conclusion that the program's impact was not produced by receipt of reemployment services is consistent with the fact that Kentucky provided minimal services to referred recipients (Wandner, 2010).

¹¹ The Maryland study was implemented in a period when the average unemployment rate in the state was 5.2 percent and the national rate was 6.1 percent; the Kentucky WPRS study in a period when the state rate was 5.5 percent and the national rate was 5.6 percent; and the national WPRS study in a period when the national rate was 5.1 percent.

2. The Nevada REA/RES Program

2.1. Program Description

Nevada was one of the first states to implement REA at its inception in 2005. What separates Nevada from other states that adopted REA is that it implemented the REA UI eligibility review in conjunction with reemployment services (RES). In particular, Nevada UI recipients referred to RES services were required to attend the REA meeting at the start of their UI claim, in which they received the UI eligibility review, combined with reemployment services, as a condition of retaining their eligibility. Since limited resources did not allow the state to provide REA/RES services to all eligible UI recipients, Nevada used random assignment to determine which recipients would be referred to the mandatory REA eligibility review and associated RES services.

The Nevada REA/RES selection process was implemented as follows. Once an unemployed worker filed a UI claim (in-person, by mail, or online) and was deemed qualified for benefits based on the information provided, Nevada UI agency staff used a set of criteria to determine if the worker was eligible for REA/RES. Recipients on temporary layoff (that is, those who expected to return to their prior employers at a future date) were excluded from receiving services. Also excluded were displaced workers who were attached to a union hiring hall and those who were already active in a WIA training program. Each week, Nevada UI staff placed the remaining pool of new UI recipients in an interface that allowed each One-Stop Career Center to randomly assign recipients to a treatment group or to the control group. Recipients assigned to the treatment group were required to receive the eligibility review and associated services to remain eligible to collect UI; control group recipients had no similar requirement, although they could on their own initiative ask to receive services.¹²

Once treatment group recipients were selected, One-Stop Career Centers sent letters to notify them that they were required to attend a UI eligibility review meeting as a condition of retaining eligibility.

¹² The number of recipients placed in the treatment varied across locations based on available REA/RES staff resources.

The letter, which was sent to recipients during the first week of their claim, informed them that the purpose of the meeting was to conduct an individual assessment of their skills, job prospects, and job search activities in order to assist them in planning their job search and reduce the amount of time they remained unemployed. The letter explicitly stated that the meeting was mandatory and failure to attend would cause loss of benefits. The letter also informed each recipient of the exact date/time of the meeting, which was typically scheduled in Week 2 or Week 3 of the claim. Recipients who failed to attend or reschedule the meeting during this timeframe were disqualified from receiving additional UI benefits.

The mandatory one-on-one meeting between the recipient and REA/RES staff comprised two components: the UI eligibility review and provision of personalized reemployment services. In the UI eligibility review portion of the meeting, REA/RES staff reviewed the recipient's employment history to confirm that the recipient was indeed eligible for benefits.¹³ REA/RES staff also reviewed the recipient's work search activities to determine if the recipient was conducting an active job search while collecting benefits, in accordance to state work search requirements¹⁴ Recipients deemed ineligible for benefits or non-compliant with state work search requirements were immediately disqualified from receiving additional UI payments.

Recipients who passed the UI eligibility review were offered reemployment services during the same meeting as follows. First, REA/RES staff assessed recipient occupational skills and work experience and, based on the results, worked with the recipient to produce a resume that would highlight those skills and experience. The purpose of these services was to help recipients, particularly those with limited job search experience, identify their skills and experience and learn how to sell them

¹³ In Nevada, displaced workers were qualified for UI benefits if they: 1) earned wages for at least two quarters in the claim's base period (first four of the five quarters prior to the start of the UI claim), 2) earned at least \$400 in one quarter and at least \$600 in the entire base period, and 3) lost their jobs involuntarily through no fault of their own. Source: *Comparison of State UI Laws 2009*, US Department of Labor, Washington, DC.

¹⁴ Nevada work search requirements state that the recipient must be physically able to work, be actively searching for a job, and not reject suitable job offers.

in the labor market. Following the assessment, REA/RES staff worked with each recipient to develop a work search plan, designed to help recipients focus their job search efforts on jobs that matched favorably with their skills and experience. As part of this process, recipients received information about local labor market conditions and were referred to employers with job openings that suited their individual skills and experience. Finally, recipients were informed that they could use other One-Stop Career Center resources including access to automated job banks, attend job search workshops, or participate in WIA-funded training programs. Following the meeting, treatment group members were not required to attend follow-up meetings or receive additional services. However, they did have the option to *ask* for additional services to facilitate their job search later in their UI claims.

In 2009, Nevada supported the REA/RES program using funds from three Federal sources: REA, Wagner-Peyser, and ARRA. According to the Nevada Department of Employment, Training, and Rehabilitation, the state spent a total of \$2,191,905 in 2009 to provide REA/RES services to a total of 10,905 UI recipients. This amount covered all costs associated with the REA/RES program, including state UI agency administrative costs to identify REA/RES-eligible recipients, the referral process, REA/RES staff salaries, and other relevant One-Stop Career Center expenses. Dividing the total funding used for the REA/RES program by the number of recipients served in 2009, yields an average estimated REA/RES cost per treatment group member of \$201.

2.2. *Data Description*

This analyses relies on Nevada UI administrative data and Wage Records that provide information on all REA/RES-eligible UI recipients who started collecting UI benefits from July 2009 through December 2009. During this period, the average state unemployment rate was 13.9 percent, higher than the 9.9 percent national rate and the highest in Nevada in over 30 years. UI administrative data provide information on recipient socioeconomic characteristics at program entry (including gender, education, age, and occupation in prior job), recipient REA/RES treatment/control status, and the

maximum benefit amount and weeks of eligibility the recipient was entitled to collect on the claim. Since Nevada's unemployment rate during the study period much exceeded the thresholds for activating the EUC and EB programs, recipients who exhausted regular UI benefits (12-26 weeks) were eligible to apply for up to an additional 47 weeks of EUC and an additional 20 weeks of EB. The UI data used in this paper provide information on the number of UI weeks and benefit amounts collected under regular UI and EUC; unfortunately, information on EB benefits collected was not reported in the data.

Wage Records provide information on the quarterly wages earned by recipients within the state of Nevada prior to and following program entry. Specifically, the data provide the total quarterly wage amounts earned by recipients in the study sample in each of the four quarters prior to and each the six quarters following the start of their claim.¹⁵ Note that the data do not report the exact date the recipient started working, number of weeks worked, or hours worked per week in each quarter. Thus, these data can be used to measure whether the recipient had positive wages in a given quarter and the total amount of quarterly wages earned within the state of Nevada, but cannot be used to determine length of employment and hourly wages. Also, the data do not include any wage amounts earned by Nevada UI recipients in our sample who may have had some earnings in other states.

2.3. *Characteristics of REA/RES-Eligible Recipients*

Exhibit 1 presents an overview of the characteristics, UI eligibility, and prior wages of recipients in the sample. During the study period, 31,799 displaced workers in Nevada started a new UI claim and were deemed eligible for REA/RES services. In the first week of their UI claim, 4,673 (15 percent) of these recipients were randomly assigned to the REA/RES treatment group and the remaining 27,126 (85 percent) to the control group. Women and Hispanics accounted for 43 and 20 percent of the

¹⁵ For recipients who entered UI in July-September 2009, that is, Quarter 3 of 2009 (Q3:2009), the four quarters prior to program entry were Q3-Q4:2008 and Q1-Q2:2009; and the six quarters after program entry were Q4:2009, Q1-Q4:2010, and Q1:2011. For recipients who entered UI in October-December 2009 (Q4:2009), the four quarters prior to program entry were Q4:2008 and Q1-3:2009; and the six quarters after program entry were Q1-4:2010 and Q1-2:2011.

sample, respectively. Nearly 60 percent had no more than a high school education and the majority was 25-54 years old. The occupational distribution of the sample was about equally split between white collar and blue collar jobs, with nearly a third in white collar, low skill jobs.¹⁶

As shown in Exhibit 1, REA/RES-eligible recipients were eligible to collect an average of 22.8 regular UI weeks and \$7,059 regular UI benefit amounts. Separate analyses show that 58 percent of recipients were eligible for the maximum 26 weeks of regular UI, while the remaining recipients were eligible for 12-16 weeks (15 percent), 17-21 weeks (14 percent), and 22-25 weeks (13 percent), respectively. Exhibit 1 also shows that the average quarterly wages earned in the four quarters prior to program entry declined slightly over time, leading up to the start of the UI claim. The average recipient in the sample earned \$7,503 in the fourth quarter prior to program entry (prior wages, Q4), which gradually dropped to \$7,077 in the quarter immediately prior to program entry (prior wages, Q1).

2.4. *Random Assignment*

To confirm that random assignment was successfully implemented, we calculated treatment-control differences in means for each variable reported in Exhibit 1 and used t-tests to assess if these differences were statistically significant. Those tests, available upon request, did not reveal any statistically significant differences between the two groups, providing evidence that there were no systematic differences in the probability of being assigned to the treatment group based on observed characteristics. Further, we estimated a linear regression model where the dependent variable is an indicator that equals 1 if the recipient was in the treatment group and 0 otherwise, and control variables include available participant characteristics and fixed effects for the One-Stop Career Center and the week in which the claim was started. If random assignment was successful, this model should not yield

¹⁶ For convenience, four occupation groups are defined: 1) white collar, high skill – includes CEOs and managers; professional specialty occupations; engineers and scientists; and healthcare occupations, 2) white collar, low skill – includes teachers, community and social services; sales; and office and administrative support occupations, 3) blue collar, high skill – includes protective services; installation, maintenance, and repair; transportation and material moving; construction; and production occupations, and 4) blue collar, low skill – includes building and grounds cleaning and maintenance; food preparation and serving; farming, fishing, and forestry; other service-related occupations; and laborers.

any statistically significant parameters. Regression results, presented in Exhibit 2, confirm that REA/RES-eligible recipients in the sample were successfully randomized. Thus, any treatment-control differences in post-random assignment UI receipt and quarterly wage outcomes can be confidently attributed to the REA/RES program.

2.5. Recipient Post-Random Assignment Outcomes

Nevada UI data were used to construct measures of recipient post-random assignment UI receipt outcomes as follows: 1) *exhausted regular UI benefits* = 1 if the recipient exhausted regular UI benefits and 0 if not; 2) *collected EUC benefits* = 1 if the recipient exhausted regular UI benefits and collected at least one week of EUC benefits and 0 if not; 3) *regular UI weeks collected* = number of regular UI weeks collected on the claim; 4) *EUC weeks collected* = number of EUC weeks collected on the claim; 5) *regular UI benefit amounts collected* = amount of regular UI benefits collected on the claim; 6) *EUC benefit amounts collected* = amount of EUC benefit amounts collected on the claim; and 7) *total benefit amounts collected* = total amount of regular UI plus EUC benefit amounts collected on the claim. These outcomes are presented in Exhibit 3.

As can be seen, 69.4 percent of recipients in the sample exhausted regular UI benefits, that is, collected their entire regular UI benefit entitlement. Due to the high unemployment rates in the state during the study period, recipients who exhausted regular UI benefits were entitled for up to an additional 47 weeks of EUC benefits. Exhibit 3 also shows that 58.4 percent of recipients exhausted regular UI benefits and collected at least one week of EUC; this suggests that about 84 percent of recipients who exhausted regular UI benefits, applied for and received EUC benefits. The average recipient collected 18.7 weeks of regular UI benefits and 12.2 weeks of EUC benefits on the claim. This means that recipients in the sample stayed on UI an average total of 30.9 weeks.¹⁷ As a result, the average recipient collected large benefit amounts before exiting UI: \$5,787 in regular UI and \$3,643 in

¹⁷ Total weeks collected exclude the number of EB weeks collected, since this information was not reported in the data.

EUC benefits. The latter represents the average for all recipients in the sample; the EUC benefits collected by recipients who exhausted regular UI *and* started receiving EUC benefits averaged \$6,238. In total, the average recipient collected \$9,430 in regular UI plus EUC benefits before exiting UI.

Wage Records were used to construct quarterly wage outcomes in each of the six calendar quarters following the start of the recipient's claim. Indicators of whether the sample member had positive wages in each of the six quarters after program entry were used to determine if the sample member was employed in a salary job at any point during each quarter. The data were also used to calculate the total wage amounts earned by sample members in each of the six quarters after program entry. These measures are presented in Exhibit 4. As shown, 41.6 percent were employed (i.e., earned positive wages) in the first quarter after program entry. This proportion increased slightly to 42.6 percent in Quarter 2, and then jumped to 46.8 percent in Quarter 3 and to 49.6 percent in Quarter 4. In Quarter 6 after program entry, only about half the sample earned positive wages. According to separate analyses, 30 percent did not earn any wages in any of the six quarters after program entry, while only 23 percent had positive wages in all six quarters. These figures suggest that the majority were unable to find steady employment following UI entry.

Our descriptive analyses also show that average quarterly wage amounts increased with each quarter after UI entry. At Quarter 1, sample members earned an average \$1,575; the average Quarter 1 wages earned for recipients who were employed at Quarter 1 was \$3,785. These figures increased gradually with each quarter after program entry until, by Quarter 6, sample members earned an average of \$3,049, with an average of \$6,006 for those who were employed at Quarter 6. In total, sample members earned an average of \$14,845 in the six quarters following UI entry.

3. Impact Analyses

The primary objective of this paper is to estimate the impact of the REA/RES program on recipient

UI receipt and quarterly wage outcomes. Estimates of program impacts are produced using linear regression models that compare the post-RA outcomes between treatment and control group members, controlling for available socioeconomic characteristics and prior wages. The regression model estimated for each outcome of interest can be expressed as follows:

$$Y_i = a \cdot T_i + X_i \cdot b + PW_i \cdot c + d + u_i$$

The dependent variable in this model (Y_i) is the post-RA outcome for recipient i and control variables include: a treatment indicator (T_i) which equals one if the recipient was in the treatment group and 0 otherwise; available recipient socioeconomic characteristics at program entry and fixed effects for One-Stop Career Center and date of entry (X_i); a constant term (d); and a zero-mean disturbance term (u_i). The parameter of interest in this model is a , which is the regression-adjusted treatment effect on the outcome of interest. The results of the impact analyses are presented below.

3.1. Program Impacts on Unemployment Insurance Receipt

The treatment effect column in Exhibit 5 presents the regression-adjusted treatment effect for each UI receipt outcome; the percent impact column presents the treatment effect as a percentage of the control group mean.¹⁸ The treatment effect for the likelihood of exhausting regular UI benefits was minus .104, which is statistically significant at the 1 percent level. This shows that the REA/RES program led to a 10.4 percentage-point reduction in the likelihood that recipients exhausted regular UI benefits. Comparing this effect with the control group mean indicates that the program led to a 15 percent reduction in regular UI exhaustion. As a result, REA/RES reduced the likelihood that UI recipients would receive EUC benefits by 9.7 percentage-points (16 percent). Similar results were obtained when a probit regression model was used to estimate impacts on exhaustion and EUC take-up.

The program's impacts on regular UI benefit exhaustion translate into significant reductions in UI duration and benefit amounts collected. Results show that the program reduced regular UI duration by

¹⁸ Complete regression results are available upon request.

1.9 weeks (10 percent) and EUC duration by 1.5 weeks (12 percent). The program's effect on total UI duration (regular UI plus EUC) was minus 3.4 weeks, which means that recipients referred to REA/RES services collected 9 percent fewer benefit weeks than recipients not referred to services. As a result, the program led to a \$520 reduction in regular UI and a \$357 reduction in EUC benefits collected, for an \$877 (9 percent) reduction in total benefits collected. Thus, the average UI savings produced by REA/RES was more than four times the estimated \$201 average program costs, implying that the program was a cost-effective intervention from the government's perspective.

These results provide strong evidence that the Nevada REA/RES program was very effective in facilitating the quick exit of recipients from the UI system, leading to significant reductions in UI duration and benefit amounts collected. What were the underlying program mechanisms that led to these impacts? By design, the Nevada REA/RES program created three mechanisms that could have led to a reduction in average UI duration. The first two are the *threat of services effect* and the *UI eligibility effect*.

The *threat of services effect* is created by the fact that some recipients were disqualified from receiving additional UI benefits because they failed to attend or reschedule the REA/RES meeting during the first three weeks of their UI claim. It is plausible, for example, that the REA/RES meeting requirement raised the opportunity cost of collecting UI for recipients who were readily employable or already had jobs under the table and, thus, pushed them to exit UI in the early stages of their claim. It is also plausible that some recipients misrepresented their work history to qualify for benefits and decided not to attend the meeting since they expected the review to lead to their disqualification. The *UI eligibility effect* is created by the fact that some recipients who attended the meeting failed the UI eligibility review and were disqualified from collecting additional UI payments, either because they were deemed ineligible for benefits based on their work history or because they were not compliant with work search requirements.

The third mechanism is the *reemployment services effect*. Recipients who attended the meeting and passed the UI eligibility review were offered an array of personalized services, designed to enhance the quality of their job search in a variety of ways. For example, the individual assessment may have been effective in helping recipients recognize their skills and work experience, and learn about the types of jobs they should be pursuing, including available jobs they would not otherwise pursue. In addition, the REA/RES staff-assisted resume development may have been effective in helping recipients with limited work search experience develop a resume that highlighted their skills and experience and, in the process, helped them understand how to sell these to employers. It is also likely that by helping recipients develop an individualized work search plan that included referrals to job openings, the program helped recipients connect to employers with current workforce needs that were compatible with recipient skills and experience and, in some cases, even led to their immediate reemployment. So, part of the program's impact on UI duration may be attributed to the fact that the services were effective in enhancing the job search abilities of recipients, particularly those with limited job search experience, thus helping them get reemployed.

Since Nevada UI data did not report the reason why recipients exited UI, there is no direct method of assessing which of the three mechanisms led to the impacts on UI duration. It is reasonable to expect that the threat of services and UI eligibility effects occurred in Weeks 1-3 of the claim, which is the time during which the mandatory meeting was scheduled. In addition, and importantly, we can expect the reemployment services effect to have very limited overlap with the first two hypothesized effects because it only began in the weeks *following* the REA/RES meeting. Given these expectations, the program impacts can be attributed to the first two mechanisms versus the third mechanism by identifying at which point in the recipient's UI spell the REA/RES effect occurred. To achieve this, we estimated the probability of exiting UI in Week x (i.e., after collecting an x number of UI weeks) using the same specification as the overall impact model discussed above. The model was estimated for the

probability of exiting UI in each week, from Week 1 to Week 25. The treatment parameter in these models captures the treatment-control group difference in the probability of exiting UI in a given week. Any treatment-control differences in the probability of exiting UI in Weeks 1-3 can be attributed to the threat of services and the UI eligibility effect; any differences in Week 4 or later can be attributed to the reemployment services effect.¹⁹

Exhibit 6 presents the treatment parameters for the probability of UI exit in Weeks 1 through 25, as well as each parameter's 95 percent confidence interval. As shown, the treatment-control difference was positive and statistically significant in each of the first three weeks: 0.6 percentage points in Week 1, 1.7 percentage points in Week 2, and 1.3 percentage points in Week 3. This difference declined slightly over time but, with the exception of Weeks 8 and 10, remained statistically significant and in the 0.5-1.2 percentage-point range through Week 13.²⁰ Adding the treatment-control differences in Weeks 1-13 yields the cumulative probability of exiting UI by Week 13 as 9.9 percentage points higher for recipients referred to REA/RES services. Comparing this difference to the control group cumulative probability of UI exit by Week 13 (34.3 percent) shows that the program as a whole increased the probability of UI exit in the first 13 weeks of the claim by 29 percent. A sizable portion of this impact was realized in Weeks 1-3, when the sum of the treatment-control group differences was 3.7 percentage points. Compared to the control group cumulative probability of UI exit by Week 3 (10.1 percent), the program increased the likelihood of UI exit in the first three weeks by 36 percent. The remaining impact occurred in Weeks 4-13, when the program led to a 6.2 percentage-point (26 percent) increase in the likelihood of UI exit.

Based on these results, it is evident that a sizable portion of the program's impact on average UI duration occurred in Weeks 1-3 of the claim and is, therefore, attributable to the threat of services

¹⁹ This approach is similar to the one used by Black et al. (2003) to assess if the impacts of the Kentucky WPRS program were due to the threat of services or to actual receipt of services.

²⁰ Note that we get identical results when the dependent variable is the likelihood of exiting UI on week x , conditional on not exiting UI by week $x-1$.

and/or UI eligibility effects. According to aggregate quarterly numbers reported by Nevada to DOL, during the study period only about 0.5 percent of all referred recipients were disqualified during the REA/RES meeting because they failed the UI eligibility test.²¹ Therefore, the program's 3.7 percentage-point (10.1 percent) impact on the cumulative probability of UI exit by Week 3 can be attributed largely to the threat of services effect. At the same time, the largest portion of the program's impact occurred *after* the REA/RES meeting, in weeks 4-13. This makes it evident that the personalized services offered by the Nevada REA/RES program were themselves effective in enhancing the job search efforts of recipients and in helping them exit UI earlier than they would have in the absence of those services.

3.2. Program Impacts on Quarterly Employment and Wage Outcomes

Exhibit 7 presents the regression-adjusted treatment effects for quarterly wage outcomes. The results show that treatment group recipients were significantly more likely to be employed (i.e., earn positive wages) in each quarter after program entry. In Quarters 1 and 2, respectively, recipients in the treatment were 7.0 and 8.2 percentage points (17 and 20 percent) more likely to be employed than control group members. The impact of REA/RES on employment gradually declined over time but remained positive and significant through all six quarters after program entry. Program impacts on employment, as with the results on UI benefit receipt, are tied to the fact that the program was effective in reducing the moral hazard of UI by pushing job-ready or ineligible recipients out of UI in the first three weeks of their claims. But the results also indicate that program impacts on employment are attributable to the fact that program services were themselves effective in assisting recipients find employment following the initial three-week period.

One concern with facilitating the speedier reemployment of recipients, especially during a period

²¹ Source: *Form ETA 9128, Reemployment and Eligibility Assessment Workload* for the period ending 09/30/2009 and for the period ending 12/31/2009, Nevada Department of Employment, Training, and Rehabilitation.

of very high unemployment, is that recipients may be pushed into jobs that are a weak match for their skills and earn lower wages than they would earn if left to conduct their job search on their own. This concern is refuted by the fact that the REA/RES program led to significant impacts on quarterly wage amounts in the six quarters following UI entry. As can be seen in Exhibit 7, treatment group recipients earned \$315 (21 percent) and \$493 (25 percent) higher wages than control group recipients in Quarters 1 and 2 after UI entry, respectively, and the program's impact on quarterly wages remained positive and significant through Quarter 6. As a result, over the entire six-quarter period following UI entry, treatment group recipients earned \$2,607 (18 percent) higher wages than control group recipients.

These results clearly show that the program led to significantly higher wages over the six-quarter period following UI entry. However, even these results do not tell the entire story. It is still possible that the wage impacts are driven solely by the program's positive impact on employment and that, in fact, treatment group recipients were placed in jobs with lower wages relative to control group recipients. To shed light on this issue, we compared treatment-control group means in quarterly wage amounts, *conditional on employment*. As shown in Exhibit 8, with the exception of Quarter 1, employed treatment group recipients earned significantly higher wages than employed control group recipients in each of the six quarters following program entry. This combination of results suggests that the program's impact on quarterly wages is driven by two factors: 1) the program was effective in improving the probability of employment and 2) the program was also effective in helping recipients obtain jobs with relatively high wages. To illustrate this point, the impact of the program on wages in a given quarter can be expressed as follows:

$$\text{Impact on Wages} = E_T \cdot W_T - E_C \cdot W_C = (E_T - E_C) \cdot W_T + E_C \cdot (W_T - W_C)$$

E_T and E_C are the employment probability for treatment and control group members, respectively; W_T and W_C are the average wages conditional on employment for treatment and control group members, respectively. As shown, the program's effect on quarterly wages can be decomposed into:

1) the *employment component*, $(E_T - E_C) \cdot W_T$, which is the treatment-control difference in the probability of employment times the average treatment group wages, conditional on employment and

2) the *conditional wages component*, $E_C \cdot (W_T - W_C)$, which is the control group probability of employment times the treatment-control difference in wages, conditional on employment. In other words, the employment component is tied to the program's impact on employment, while the conditional wages component is tied to the treatment-control differences in wages earned, conditional on employment.

Exhibit 9 presents the contribution of these two components to the program's impact on quarterly wages. As can be seen, both the employment component (dark grey area) and the conditional wages component (light grey area) contributed positively to the program's impact on wages. For example, in the first two quarters after UI entry, the vast majority of the program's impact on wages is attributed to the employment component (86 and 83 percent, respectively) while the conditional wages component accounts for only 14-17 percent. In Quarters 3-6 after UI entry, 70-73 percent of the impact is attributable to the employment component and the remaining 27-30 percent to the conditional wages component. These results show that although the program's impact on quarterly wages is driven mainly by the employment component, a sizable portion of the impact, particularly in Quarters 3-6, is attributable to the fact that treatment group recipients were placed in relatively high-paying jobs. Based on these analyses, it is evident that the Nevada REA/RES program was effective not only in facilitating the quick UI exit and reemployment of recipients, but also in helping them get placed in jobs that paid higher wages than the jobs they would have obtained in the program's absence.

4. Summary and Conclusion

This paper provides evidence on the efficacy of reemployment services during the Great Recession using data from the Nevada REA/RES program. This program required a random sample of new UI

recipients to attend a one-on-one meeting with program staff in the first three weeks of their UI claim as a condition of retaining their UI eligibility. In that meeting, recipients underwent a UI eligibility review to confirm they were indeed eligible for benefits and actively searching for a job while collecting benefits. Recipients who did not attend the meeting and those who failed the UI eligibility review were immediately disqualified from receiving additional UI payments. Recipients who passed the review were offered an array of personalized reemployment services designed to enhance the quality of their job search. Services included an individual assessment to help recipients identify their skills and work experience and learn about the types of jobs they should be pursuing, resume development assistance to highlight recipient skills and experience to potential employers, and a work search plan to help recipients connect to suitable employment opportunities. Following the meeting, recipients had no additional requirements to receive services or to meet with REA/RES program staff.

Program impacts were estimated by calculating treatment-control differences in outcomes using UI claims and Wage Records data for all REA/RES-eligible displaced workers who started collecting benefits from July 2009 through December 2009, a period when the average unemployment rate in Nevada was the highest in over 30 years. Results show that the program reduced average UI duration by 3.4 weeks and average benefit amounts collected by \$877. The savings produced by this reduction in benefit amounts was more than four times the average program costs, which shows that the program was a cost-effective intervention. The program's impact on UI duration is partly attributable to the fact that some recipients did not attend the REA/RES meeting and were disqualified from receiving benefits in the first three weeks of their claims. This shows that the *requirement* to receive services pushed out of UI recipients who did not face significant obstacles in getting reemployed and recipients who thought they would not pass the eligibility review. A small portion of the impact is attributed to the fact that a few recipients attended the meeting but failed the UI eligibility review either because they were deemed ineligible for benefits based on the work history or because they were not compliant

with state work search requirements. But the largest portion of the impact occurred *after* the initial three-week period, which shows that the reemployment services offered to recipients were themselves effective in enhancing the quality of their job search.

Results also show that the program increased the probability of employment in each of the six quarters following UI entry. The impact on the probability of employment was 17 and 20 percent in the first two quarters after UI entry and, although it gradually declined over time, remained positive through six quarters after UI entry. These results are tied to the fact that the program pushed job-ready or ineligible recipients out of UI early in their claims, but are also attributable to the fact that program services were effective in facilitating the quick reemployment of recipients. Further, the program did not push recipients to accept jobs that paid them lower wages than they would earn in the absence of the program. On the contrary, the program led to significant positive impacts on wages earned in each of the six quarters after UI entry, with recipients required to receive services earning \$2,607 (18 percent) higher wages than their peers over the entire six-quarter follow-up period. Additional analyses show that the impacts on wages are not attributable solely to the program's effectiveness in promoting the quick reemployment of recipients but also to the program's success in helping recipients find relatively high-paying jobs.

This is the first study to examine the effectiveness of providing reemployment services to displaced workers who started collecting UI during the Great Recession. The results provide strong evidence that requiring UI recipients to receive services reduces the moral hazard associated with availability of UI benefits by pushing out of UI job-ready or ineligible recipients in the initial stages of their claim. This finding is consistent with the conclusions of prior work, with the distinction that prior work examined programs in periods of moderate unemployment, when displaced workers had more opportunities to find suitable jobs and the moral hazard risk was higher. Perhaps more importantly, personalized reemployment services offered to new UI recipients assigned in the program's treatment

group were effective not only in facilitating their quick reemployment and but also in helping them to find relatively high-paying jobs. It is, therefore, evident that providing new UI recipients with comprehensive reemployment services was a cost-effective policy for expediting their UI exit and improving their reemployment outcomes. The study findings have obvious policy implications – the Federal and state governments should strongly consider investing in programs that provide personalized reemployment services during periods of high unemployment as a means to help displaced workers get reemployed and reduce their dependency on the UI program.

Exhibit 1: Characteristics of REA/RES-Eligible UI Recipients

	REA/RES-Eligible Recipients
Number of Recipients	31,799
Treatment Group	4,673 (15%)
Female	13,722 (43%)
Hispanic	6,459 (20%)
No High School Diploma	5,180 (16%)
High School Diploma	13,739 (43%)
Some College	9,031 (28%)
College Degree	3,849 (12%)
Less than 25 Years	4,020 (13%)
25-34 Years	7,959 (25%)
35-44 Years	7,249 (23%)
45-54 Years	6,906 (22%)
55-64 Years	4,133 (13%)
65+ Years	1,532 (5%)
US Citizen	28,581 (90%)
Disabled	1,491 (5%)
White Collar, High Skill	6,065 (19%)
White Collar, Low Skill	10,165 (32%)
Blue Collar, High Skill	7,165 (23%)
Blue Collar, Low Skill	8,404 (26%)
MBA (\$)	7,059 (3,035)
UI Weeks Allowed	22.8 (4.5)
Prior Wages, Q1 (\$)	7,077 (6,882)
Prior Wages, Q2 (\$)	7,284 (8,883)
Prior Wages, Q3 (\$)	7,437 (7,271)
Prior Wages, Q4 (\$)	7,503 (8,134)

Note: Reported is the number of recipients with sample proportions in parenthesis; for MBA, UI weeks allowed, and prior wages, reported is the sample mean with standard deviation in parenthesis.

Exhibit 2: Regression Results, Likelihood of Treatment Group Assignment

	Dependent Variable: Treatment Group Indicator
Female	-.006 (.004)
Hispanic	.003 (.005)
High School Diploma	-.009 (.006)
Some College	-.002 (.007)
College Degree	.010 (.008)
25-34 Years	.006 (.007)
35-44 Years	.002 (.007)
45-54 Years	.012 (.007)
55-64 Years	-.010 (.008)
65+ Years	-.013 (.011)
US Citizen	.001 (.007)
Disabled	.009 (.009)
White Collar, Low Skill	.004 (.006)
Blue Collar, High Skill	.007 (.007)
Blue Collar, Low Skill	-.011 (.006)
Log MBA	-.003 (.004)
Prior Wages – Quarter 1 / 10,000	-.003 (.004)
Prior Wages – Quarter 2 / 10,000	-.004 (.003)
Prior Wages – Quarter 3 / 10,000	.002 (.005)
Prior Wages – Quarter 4 / 10,000	.004 (.004)
R-Squared	.0441
Observations	31,799

Note: Reported are estimated parameters with standard errors in parenthesis. Omitted categories are: male, non-Hispanic, no high school diploma, less 25 years, not a US Citizen, not disabled, and white collar, high skill. Also included but not reported are fixed effects for One-Stop Career Center and week of program entry.

Exhibit 3: Unemployment Insurance Receipt Outcomes

	All REA/RES-Eligible Recipients
Exhausted Regular UI Benefits	.694 (.461)
Collected EUC Benefits	.584 (.493)
Weeks Collected	
Regular UI	18.7 (8.0)
EUC	12.2 (12.7)
Total	30.9 (17.7)
Benefits Amounts Collected (\$)	
Regular UI	5,787 (3,433)
EUC	3,643 (3,948)
Total	9,430 (6,499)

Note: Reported is the mean with standard deviation in parenthesis.

Exhibit 4: Quarterly Wage Outcomes Following Start of UI Claim

	All REA/RES-Eligible Recipients
Employed	
Quarter 1	.416 (.493)
Quarter 2	.426 (.495)
Quarter 3	.468 (.499)
Quarter 4	.496 (.500)
Quarter 5	.494 (.500)
Quarter 6	.508 (.500)
Wage Amounts (\$)	
Quarter 1	1,575 (3,312)
Quarter 2	2,051 (3,799)
Quarter 3	2,556 (4,408)
Quarter 4	2,750 (4,586)
Quarter 5	2,864 (5,286)
Quarter 6	3,049 (4,933)
Total, Quarters 1-6	14,845 (21,313)

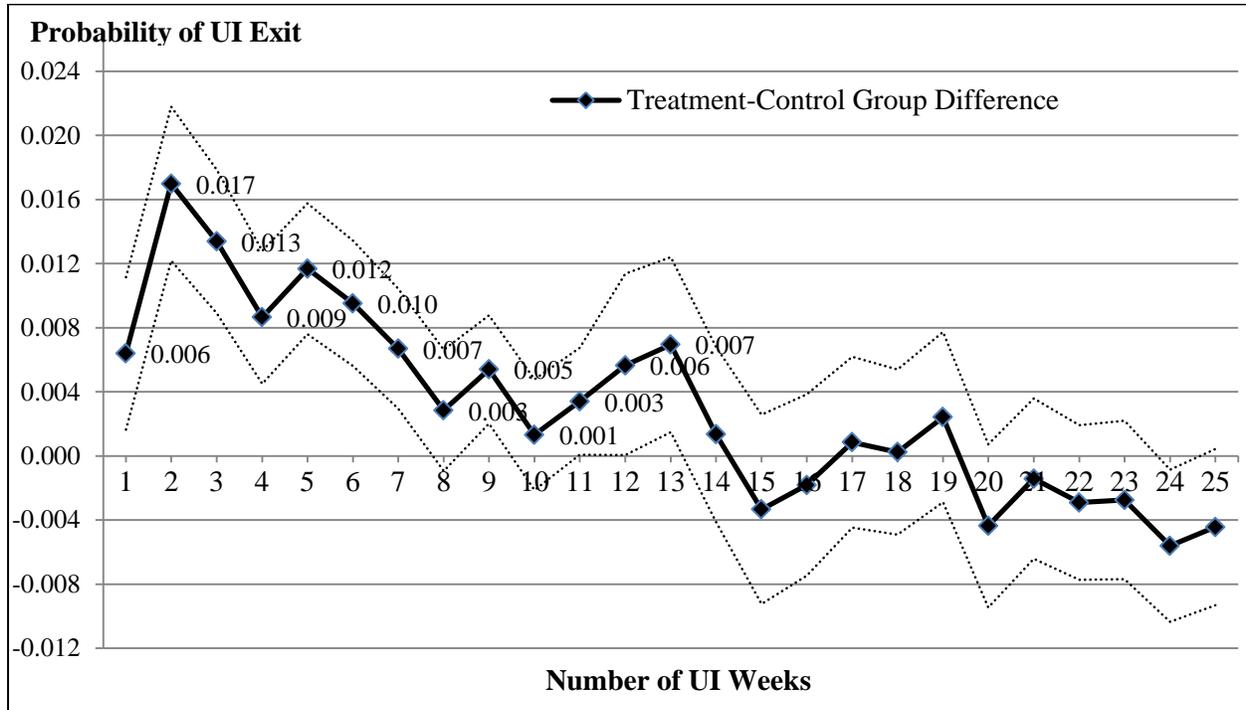
Note: Reported is the mean with standard deviation in parenthesis.

Exhibit 5: Nevada REA/RES Treatment Effects, Unemployment Insurance Receipt

	Treatment Effect	% Impact
Exhausted Regular UI Benefits	-.104 (.007)**	-15%
Received EUC Benefits	-.097 (.008)**	-16%
Weeks on UI		
Regular	-1.9 (.1)**	-10%
EUC	-1.5 (.2)**	-12%
Total	-3.4 (.3)**	-11%
UI Benefits Received (\$)		
Regular	-520 (38)**	-9%
EUC	-357 (60)**	-10%
Total	-877 (87)**	-9%

Note: The left column reports regression-adjusted treatment effects with standard errors in parenthesis; the right column reports the REA/RES impact as a percent of the control group mean. **= statistically significant at 1 percent level.

Exhibit 6: Treatment-Control Group Difference in the Probability of UI Exit



Note: Black line presents regression-adjusted treatment-control differences in the probability of UI exit. The grey dotted lines present the 95 percent confidence intervals.

Exhibit 7: Nevada REA/RES Treatment Effects, Employment and Wages

	Treatment Effect	% Impact
Employed		
Quarter 1	.070 (.008)**	+17%
Quarter 2	.082 (.008)**	+20%
Quarter 3	.066 (.008)**	+14%
Quarter 4	.063 (.008)**	+13%
Quarter 5	.052 (.008)**	+11%
Quarter 6	.046 (.008)**	+9%
Wage Amounts (\$)		
Quarter 1	315 (51)**	+21%
Quarter 2	493 (59)**	+25%
Quarter 3	542 (68)**	+22%
Quarter 4	504 (70)**	+19%
Quarter 5	348 (81)**	+12%
Quarter 6	404 (75)**	+14%
Total, Quarters 1-6	2,607 (322)**	+18%

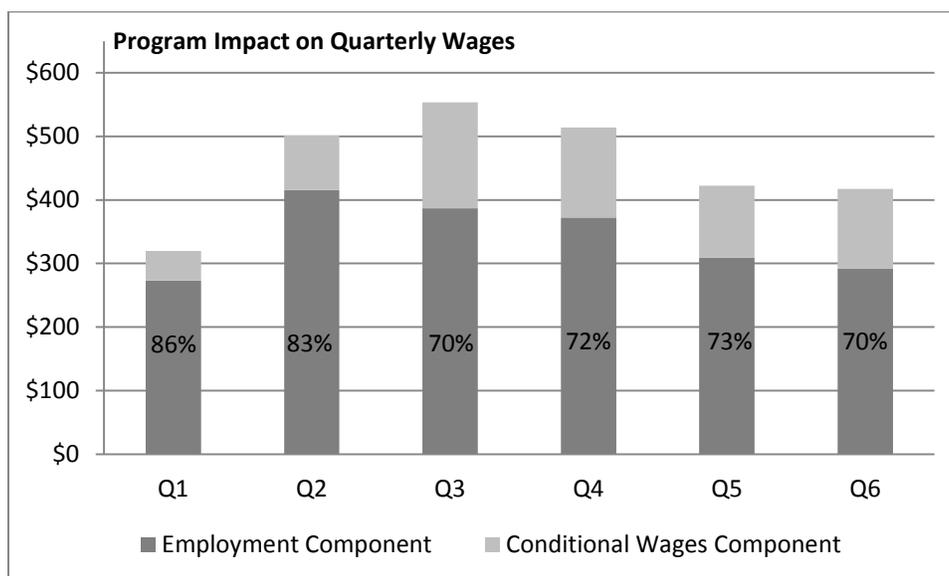
Note: The left column reports regression-adjusted treatment effects with standard errors in parenthesis; the right column reports the REA/RES impact as a percent of the control group mean. **= statistically significant at 1 percent level.

Exhibit 8: Treatment-Control Differences in Quarterly Wages

	Treatment-Control Difference	Treatment-Control Difference, Conditional on Employment
Wage Amounts (\$)		
Quarter 1	315 (51)**	116 (88)
Quarter 2	493 (59)**	184 (86)*
Quarter 3	542 (68)**	328 (94)**
Quarter 4	504 (70)**	276 (93)**
Quarter 5	348 (81)**	225 (99)**
Quarter 6	404 (75)**	298 (100)**

Note: The left column reports the regression-adjusted treatment-control differences in quarterly wages, with standard errors in parenthesis. The right column reports the regression-adjusted treatment-control differences in quarterly wages, conditional on employment, with standard errors in parenthesis. Statistical significance level: ** = 1 percent, * = 5 percent.

Exhibit 9: Decomposition of Program Impact on Quarterly Wages



Note: Reported is the program impact on quarterly wage amounts. The dark grey area is the portion of the impact attributed to the employment component (actual proportion also reported) and the light grey area is the portion of the impact attributed to the conditional wages component. See text for details.

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