



# How Did Workers with a History of Long-Term Unemployment Fare during the COVID Recession?

## EVIDENCE FROM APPLICANTS TO THE READY TO WORK PARTNERSHIP GRANT PROGRAM

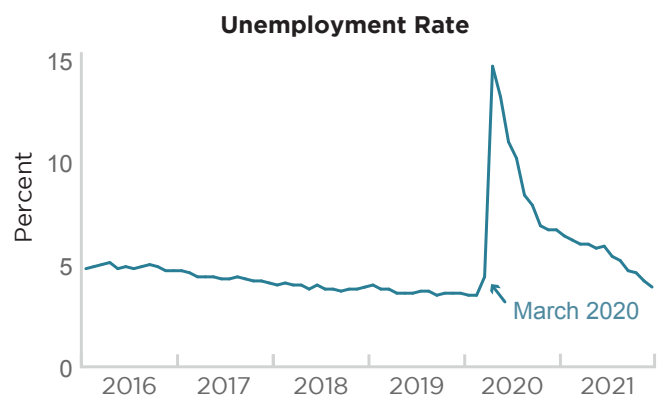
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After a decade of strong economic growth, the emergence of COVID-19 in spring 2020 led to a dramatic rise in unemployment in the United States (see Exhibit 1), and claims for Unemployment Insurance (UI) surged.<sup>1</sup> During 2021 the economy largely recovered, and the unemployment rate returned nearly to its pre-pandemic level. However, workers' employment experiences during the COVID-19 pandemic and its corresponding economic shutdown varied among different groups. Some transitioned relatively easily to remote work, while others lost their jobs or experienced significant reductions in hours.<sup>2</sup> Moreover, research suggests that the 2020 recession had a disproportionately negative impact on Black and Hispanic workers, women, and younger and less educated workers.<sup>3</sup>

This brief explores the employment and earnings of applicants to the Ready to Work (RTW) Partnership Grant program (see Box 1 below) before and during the COVID pandemic.<sup>4</sup> When the RTW program began offering services in 2015, it targeted workers who had lost their job during or after the 2007-2009 recession and remained long-term unemployed or

underemployed, but who had sufficient education and experience to become re-employed in higher-paying middle- or high-skill jobs. By 2019, before the pandemic emerged, most of these workers (70 percent; those who both did and did not attend the program) had returned to employment at higher earnings than before they applied to the RTW program.<sup>5</sup>

**Exhibit 1: U.S. Monthly Unemployment Rate, 2016 through 2021**



Source: Monthly Unemployment Statistics from the Current Population Survey, U.S. Bureau of Labor Statistics, 2016-2021

## KEY FINDINGS

During the COVID-19 pandemic, a sample of previously long-term unemployed workers who were relatively older and educated experienced the following:

- Employment fell by 10 percentage points and never recovered through late 2021.
- Although earnings fell in mid-2020, earnings began rising again by late 2020.
- In 2020, rising Unemployment Insurance benefits offset falling earnings, such that the sum of earnings and benefits remained stable in 2020.
- Changes in employment between 2019 and 2021 did not vary by education level, race and ethnicity, or gender.
- Changes in earnings between 2019 and 2021 did not vary by race and ethnicity or gender, but workers without a bachelor's degree had a substantially larger decrease in earnings in 2020 and a smaller increase in earnings in 2021.

The brief considers the employment and earnings before and during the COVID-19 pandemic (2019-2021)<sup>6</sup> for these previously long-term unemployed and relatively older and better-educated workers. It considers three specific periods: (1) roughly the year before the pandemic (2019 through the start of 2020), (2) the emergence of COVID and the corresponding economic shutdown (approximately spring through fall 2020), and (3) the subsequent year (through fall 2021). The brief also considers the extent to which UI benefits offset earnings losses in 2020 and 2021. Lastly, the brief explores how the economic disruption of COVID-19 varied over those periods by education level, race and ethnicity, and gender in this sample.

The remainder of this brief is organized as follows. Section 1 presents the pattern of employment, earnings, and UI benefits from 2019 through 2021 for the RTW sample, as a whole. Section 2 explores how these patterns vary for education level, race and ethnicity, and gender subgroups. Section 3 provides concluding thoughts on these findings for this sample of previously long-term unemployed and relatively older and better-educated workers. An appendix provides additional technical information and detailed results for this analysis.

### BOX 1: THE READY TO WORK PARTNERSHIP GRANT PROGRAM

In 2014 the U.S. Department of Labor (DOL) provided RTW grants to 23 partnerships of workforce agencies, training providers, employers, and other local organizations. From 2015 to 2019, these RTW programs provided customized services, including occupational training, employment readiness and job search services, and work-based training, to prepare long-term unemployed and underemployed workers for employment in higher-paying middle- and high-skill jobs.

DOL also funded an evaluation to understand the implementation and impact of the RTW programs offered by four grantees. For more information on the RTW program and evaluation, see Appendix Section A.1.

## 1. Employment, Earnings, and UI Benefits Receipt before and during the COVID-19 Pandemic

For the individuals included in the evaluation of the RTW program, this section describes patterns of employment, earnings, and UI benefits received.<sup>7</sup> (See Box 2 for detail on the study sample and data sources for this analysis.)

Because the RTW programs recruited workers with the experience or education to qualify for higher-paying middle- or high-skill jobs, this sample was generally older and more educated than other workers involved in DOL workforce programs. RTW applicants were on average 48 years old at the start of 2020 (when COVID emerged), and 62 percent had at least a bachelor's degree when they applied to the RTW program.<sup>8</sup> Because the sample was relatively older, only 16 percent had children age 10 or younger at the start of 2020 (18 percent among women, 14 percent among men). The sample was also racially diverse, with 26 percent Black or African American, 11 percent Asian, and 7 percent Hispanic. For more detail on the sample characteristics, see Appendix Exhibit A.1-1.

- Employment fell by approximately 10 percentage points in 2020 with the onset of the COVID pandemic and remained at that lower level through 2021.

In the year before COVID-19 emerged, the quarterly employment rate in this sample was approximately 70 percent (see Panel A of Exhibit 2).<sup>9</sup> With the arrival of COVID-19, employment levels fell substantially to 64 percent by the end of the second quarter of 2020. Employment continued falling throughout 2020, before stabilizing at approximately 60 percent in 2021.<sup>10</sup>

- Earnings fell sharply, by 8 percent in 2020, then recovered in 2021 without a corresponding recovery in employment levels.

### BOX 2: STUDY SAMPLE AND DATA SOURCES

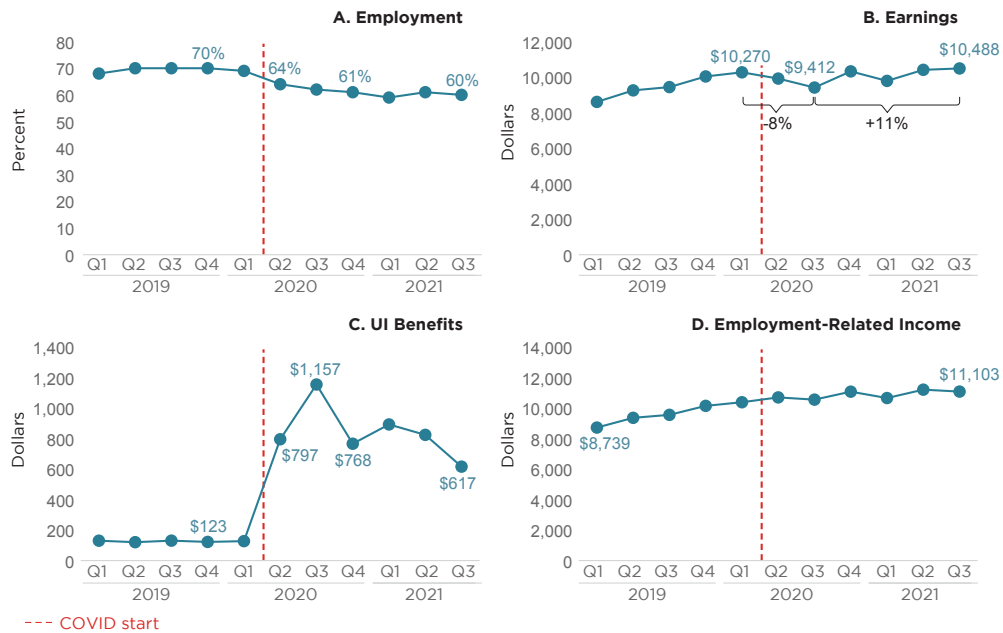
This analysis studies the path of employment, earnings, and UI benefits received for the sample of applicants to the four RTW grantee programs included in the RTW Evaluation (see Appendix Section A.1 for information on these four programs). It pools the four grantee program samples included in the evaluation to yield a total sample of 3,553 applicants.

The analysis uses administrative data on quarterly earnings and UI receipt from the National Directory of New Hires (NDNH) from the first quarter of 2019 through the third quarter of 2021. The analysis also uses information on applicant demographics collected by the RTW Evaluation at application to the RTW program (between 2015 and 2018).

In the year before COVID-19 emerged, average quarterly earnings for the sample (including those who were unemployed) rose 19 percent to \$10,270 in the first quarter of 2020 (see Panel B of Exhibit 2). With the arrival of the pandemic, however, average quarterly earnings fell 8 percent through the third quarter of 2020, to \$9,412.<sup>11</sup> This fall in earnings coincided with the fall in employment in mid-2020 (see Panels A and B).<sup>12</sup>

Starting in the last quarter of 2020, even as employment levels remained unchanged in this sample, average quarterly earnings began to rise, increasing by 11 percent to \$10,488 by the third quarter of 2021. Thus, rising earnings among those who were working drove the increase, rather than a return to employment for those who had previously lost a job. Among those who were employed in the third quarters of both 2020 and 2021, average earnings rose by 16 percent (from \$15,884 to \$18,389, not shown).<sup>13</sup>

### Exhibit 2: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income for the Full RTW Sample, 2019q1-2021q3



SOURCE AND FOLLOW-UP PERIOD: National Directory of New Hires; 2019q1 through 2021q3.

SAMPLE: 3,553 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH.

NOTES: Red dashed line marks the emergence of COVID-19 and the corresponding economic shutdown beginning at the end of March 2020. Numbers in blue report the average level of the given outcome in the given quarter (reported for select quarters discussed).

- UI benefits rose substantially after the onset of COVID, peaking in the third quarter of 2020.

With the spike in unemployment in April 2020, combined with rule changes instituted by the U.S. Congress at the end of March to increase both the number of workers eligible for UI and the amount of UI payments,<sup>14</sup> the average quarterly amount of UI benefits received rose sharply for the RTW sample. Throughout 2019, this sample (including those who both were and were not receiving benefits) received on average approximately \$125 per quarter in UI benefits (see Panel C of Exhibit 2). In the second quarter of 2020 this average rose to \$797, climbing further to \$1,157 in the third quarter of 2020. Average benefits received then fell to \$768 in the fourth quarter of 2020, and to \$617 by the third quarter of 2021.<sup>15</sup>

- Because falling earnings were offset by rising UI benefits, total employment-related income was steady throughout 2020.

To assess the extent that receipt of UI benefits offset earnings losses during the COVID shutdown, the analysis also examines total “employment-related income,” defined as the sum of earnings and UI benefits (this measure does not include the stimulus payments in 2020 and 2021<sup>16</sup>). Comparing earnings to total employment-related income, the decrease in average earnings in the first three quarters of 2020 (see Panel B of Exhibit 2) is completely offset by the increase in average UI benefits (see Panel C), such that the sum of the two income sources was relatively stable during 2020 (see Panel D). Total employment-related income then began rising again in late 2020, driven by rising earnings. In sum, over this approximately three-year period, total employment-related income rose from \$8,739 in the first quarter of 2019 to \$11,103 in the third quarter of 2021.

## 2. Changes in Economic Outcomes by Education, Race/Ethnicity, and Gender

The previous section considered changes in economic outcomes for the full RTW study sample. This section explores how changes varied by education level, race and ethnicity, and gender in this sample.

### BOX 3: HOW TO READ EXHIBITS 3 THROUGH 5

**Each exhibit in Section 2 compares outcomes between subgroups.**

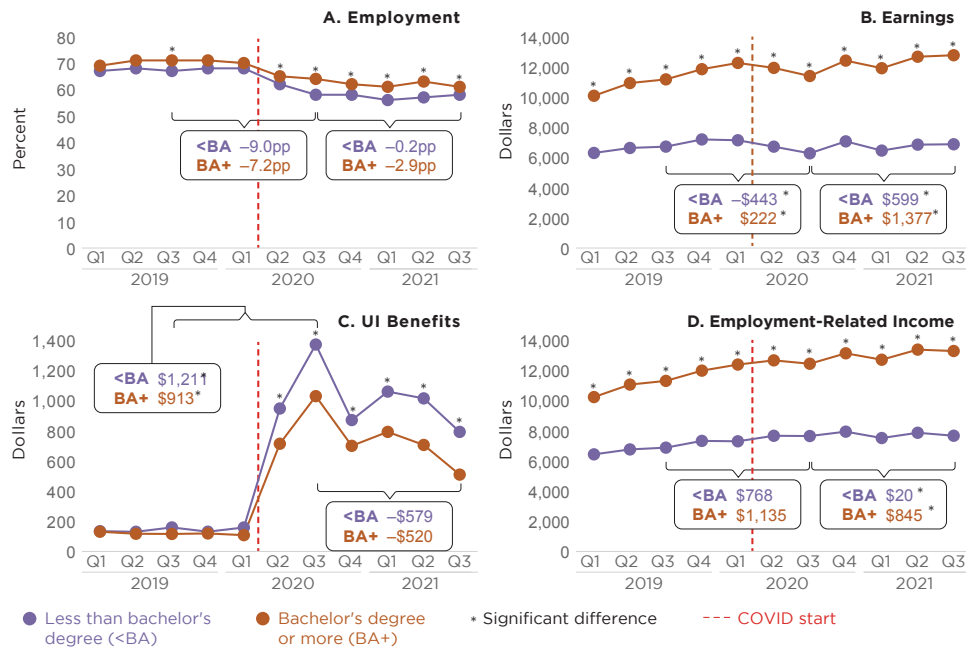
- The red dashed line marks the emergence of COVID-19 in late March 2020.
- Black stars above the two lines indicate quarters in which the outcome (e.g., average quarterly employment in the third quarter of 2020) differs between the two groups.
- The two text boxes in each exhibit panel report the change in the given outcome over two 1-year periods (indicated by brackets): (i) from the third quarter of 2019 (before the emergence of COVID) to the third quarter of 2020 (when average earnings reached their lowest point and UI benefits peaked); and (ii) from the third quarter of 2020 to the third quarter of 2021 (the last data available).
- Each of the change-over-time outcomes is measured as the level in the later time period minus the level in the earlier time period. Comparisons use the same quarters across years to allow for the seasonality of employment and earnings.
- Differences between groups in these change-over-time outcomes are indicated with a star in the corresponding text box.

## 2.1 Differences by Education Level

### 2.1 Differences by Education Level

Exhibit 3 compares outcomes for RTW sample members without a bachelor's degree (the purple line) to those with a bachelor's degree or more (the orange line).

**Exhibit 3: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Education Level, 2019q1-2021q3**



KEY: pp = percentage point.

SOURCE AND FOLLOW-UP PERIOD: National Directory of New Hires; 2019q1 through 2021q3.

SAMPLE: 3,521 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their education level at application to the given RTW program (1,339 with less than a bachelor's degree and 2,182 with a bachelor's degree or more).

NOTES: Red dashed line marks the emergence of COVID and the corresponding economic shutdown beginning at the end of March 2020. Black stars indicate quarters in which the given outcome (e.g., average quarterly employment, or average quarterly earnings) are statistically significantly different for those with less than a bachelor's degree ("<BA") versus those with a bachelor's degree or more ("BA+"), at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-2 for associated *p*-values). Text boxes report the average level change for the given outcome from the third quarter of 2019 to the third quarter of 2020, and from the third quarter of 2020 to the third quarter of 2021 (periods marked by brackets). Reported changes over time may not equal the difference between the levels reported in Appendix Exhibit A.3-2 because of rounding. Stars in a text box indicate that the difference in the change in the given outcome for the two education groups is statistically significantly different at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-5 for associated *p*-values).

- Although the change in employment from 2019 to 2021 was similar for both education groups, those with less education experienced a larger decrease in earnings in 2020 and a smaller increase in earnings in 2021.

the drop in employment after the emergence of COVID was similar for both groups (approximately 8 percentage points from the third quarter of 2019 to the third quarter of 2020; see Panel A of Exhibit 3).

When comparing workers in this sample with at least a bachelor's degree to those without a bachelor's degree, throughout this period employment levels were modestly higher overall for those with more education. Nevertheless,

Despite this similarity in the pattern of employment, the change in average earnings from the third quarter of 2019 to the third quarter of 2020 was more negative for those without a bachelor's degree than for those with a degree

## 2.1 Differences by Education Level

(-\$443 versus +\$222; see Panel B of Exhibit 3).<sup>17</sup> Furthermore, although earnings rose for both education groups between the third quarter of 2020 and the third quarter of 2021, the increase was larger for those with a bachelor's degree than for those without a degree (+\$1,377 versus +\$599; see Panel B).

- Workers with a bachelor's degree had a smaller increase in UI benefits from 2019 to 2020 than those without a bachelor's degree. As a result, the change in total employment-related income during that year did not vary by education.

Despite the similar change in employment levels over time between RTW sample members with and without a bachelor's degree, those without a bachelor's degree had a larger increase in average UI benefits in 2020. When UI benefits peaked in the third quarter of 2020, those without a bachelor's degree received on average

\$1,370 in benefits compared to \$1,029 for those with a degree (see Panel C of Exhibit 3). This larger increase in UI benefits offset the larger initial decrease in earnings for those without a degree (see Panel B). As a result, the change in total employment-related income between the third quarter of 2019 and the third quarter of 2020 was similar for these two education groups (see Panel D).

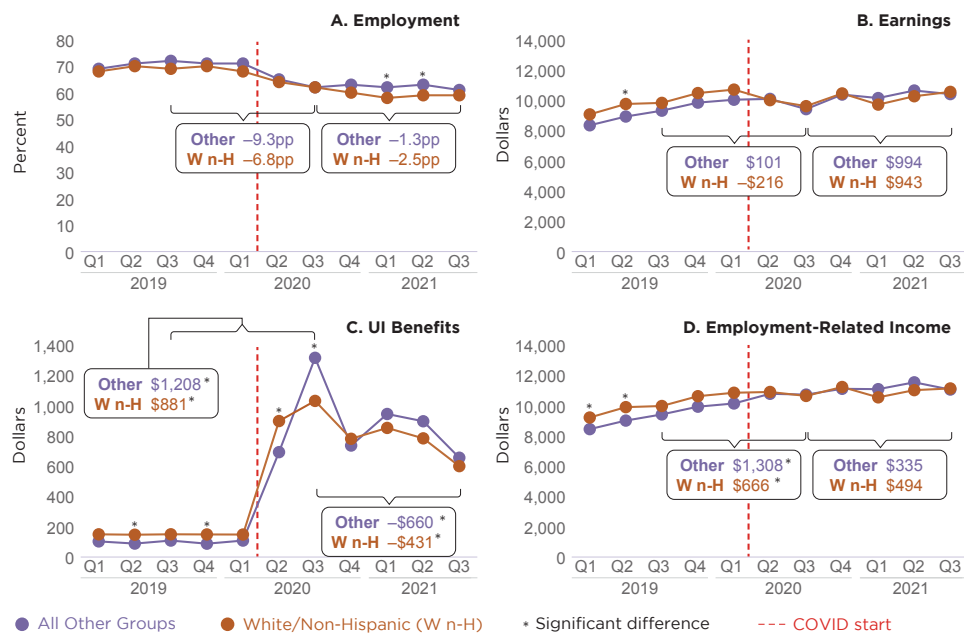
During 2021, when the economy began recovering, sample members without a bachelor's degree continued to receive more UI benefits on average than those with a bachelor's degree (see Panel C of Exhibit 3). However, the higher UI benefits did not offset the larger increase in earnings for those with a bachelor's degree (see Panel B). Thus, in net, total employment-related income did not change from the third quarter of 2020 to the third quarter of 2021 for those without a bachelor's degree, but it increased for those with a degree (+\$20 versus +\$845, see Panel D).

## 2.2 Differences by Race/Ethnicity

### 2.2 Differences by Race/Ethnicity

Exhibit 4 compares White non-Hispanic RTW sample members versus all other racial/ethnic groups, in terms of average quarterly employment, earnings, UI benefits received, and total employment-related income.

**Exhibit 4: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Race/Ethnicity, 2019q1-2021q3**



KEY: pp = percentage point.

SOURCE AND FOLLOW-UP PERIOD: National Directory of New Hires; 2019q1 through 2021q3.

SAMPLE: 3,286 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their race and ethnicity at application to the given RTW program (1,698 White non-Hispanic sample members and 1,588 sample members of all other racial/ethnic groups).

NOTES: Red dashed line marks the emergence of COVID and the corresponding economic shutdown beginning at the end of March 2020. Black stars indicate quarters in which the given outcome (e.g., average quarterly employment, or average quarterly earnings) are statistically significantly different for White non-Hispanic workers ("W n-H") versus all other racial/ethnic subgroups (individuals who are Hispanic, American Indian or Alaskan native, Asian, Black or African American, Native Hawaiian or Pacific Islander, or any other race or multiple races) at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-3 for associated *p*-values). Text boxes report the average level change for the given outcome from the third quarter of 2019 to the third quarter of 2020, and from the third quarter of 2020 to the third quarter of 2021 (periods marked by brackets). Reported changes over time may not equal the difference between the levels reported in Appendix Exhibit A.3-3 because of rounding. Stars in a text box indicate that the difference in the change in the given outcome for the two race/ethnicity groups is statistically significantly different at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-5 for associated *p*-values).

- There were no differences by race/ethnicity in changes in employment levels or earnings after the onset of the COVID pandemic.

Among the RTW sample, overall employment levels were similar for White non-Hispanic workers compared to all other workers both prior to and after the onset of the pandemic (see Panel A of Exhibit 4). Furthermore, although average quarterly earnings were higher for White non-

Hispanic workers than for all other racial/ethnic groups in the second quarter of 2019 (by \$830), throughout the remainder of the three-year study period earnings were similar (see Panel B of Exhibit 4). Likewise, there was no significant difference by race/ethnicity in the initial change in earnings (from the third quarter of 2019 to the third quarter of 2020) or in the subsequent increase in earnings (from the third quarter of 2020 to the third quarter of 2021; see Panel B).<sup>18</sup>



## 2.2 Differences by Race/Ethnicity

- Compared to White non-Hispanic workers, all other workers had a larger increase in UI benefits between the third quarter of 2019 and the third quarter of 2020, which resulted in a larger increase in total employment-related income.

Despite similar employment and earnings patterns by race/ethnicity in the RTW sample, average UI benefit levels varied between White non-Hispanic workers and all other workers during the study period. Whereas White non-Hispanic workers received modestly higher average UI benefits before COVID (approximately \$150 per quarter versus \$100 per quarter for all other workers), by the third quarter of 2020 average UI benefits were higher for all other workers compared to White non-Hispanic workers by almost \$300 (see Panel C of Exhibit 4)

Combining UI benefits with earnings, for both race/ethnicity groups, the increase in benefits offset the decrease in earnings during 2020. However, while White non-Hispanic workers began 2019 with higher average quarterly earnings and higher average UI benefits than all other workers, they had a smaller increase in UI benefits in the subsequent year. Thus, the change in average employment-related income between the third quarter of 2019 and the third quarter of 2020 was smaller for White non-Hispanic workers than for all other workers (+\$666 versus +\$1,308; see Panel D of Exhibit 4). For the subsequent year, however, there was no difference by race and ethnicity in the change in total employment-related income; both groups saw an increase of approximately \$400 from the third quarter of 2020 to the third quarter of 2021 (see Panel D).

## 2.3 Differences by Gender

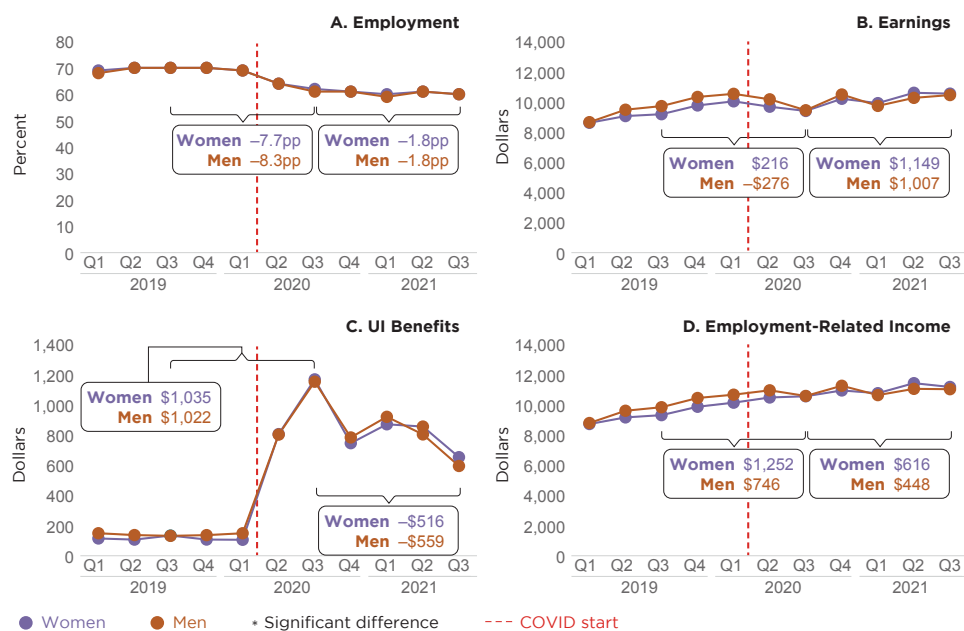
### 2.3 Differences by Gender

Comparing women and men in the RTW sample, Exhibit 5 shows the same information as Exhibit 3 and 4 on average employment, earnings, UI benefits received, and total employment-related income.

- Between 2019 and 2021 there were no differences by gender in employment, earnings, UI benefits, or total employment-related income.

There was no difference by gender in quarterly employment levels or changes in employment over time (see Panel A of Exhibit 5). Likewise, because average earnings and UI benefits received were similar for men and women throughout this period (see Panels B and C, respectively), total employment-related income also did not vary by gender (see Panel D).<sup>19</sup> As noted, only 16 percent of the RTW sample had children age 10 or younger in 2020, which may explain the limited difference in economic outcomes between men and women.

**Exhibit 5: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Gender, 2019q1-2021q3**



KEY: pp = percentage point.

SOURCE AND FOLLOW-UP PERIOD: National Directory of New Hires; 2019q1 through 2021q3.

SAMPLE: 3,506 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their gender at application to the given RTW program (1,682 women and 1,824 men).

NOTES: Red dashed line marks the emergence of COVID and the corresponding economic shutdown beginning at the end of March 2020. Red stars indicate quarters in which the given outcome (e.g., average quarterly employment, or average quarterly earnings) are statistically significantly different for women versus men, at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-4 for associated  $p$ -values). Text boxes report the average level change for the given outcome from the third quarter of 2019 to the third quarter of 2020, and from the third quarter of 2020 to the third quarter of 2021 (periods marked by brackets). Reported changes over time may not equal the difference between the levels reported in Appendix Exhibit A.3-4 because of rounding. Stars in a text box indicate that the difference in the change in the given outcome for men versus women is statistically significantly different at the 5 percent level via a two-sided t-test (see Appendix Exhibit A.3-5 for associated  $p$ -values).

### 3. Conclusion

For the RTW sample, a somewhat older and more educated population of workers who had experienced long-term unemployment after the recession of 2007-2009, the economic disruptions generated by the emergence of COVID-19 in early 2020 led to a dramatic fall in employment in 2020 similar to national trends.

Yet, though the national unemployment rate had almost returned to pre-pandemic levels by the end of 2021, employment levels did not recover for the RTW sample during this time period. In contrast to this pattern for employment, average quarterly earnings fell in 2020, but rose again in 2021 for the RTW sample. The decrease in earnings in 2020 was driven by those who lost jobs, while the increase in earnings in 2021 was driven by increasing earnings among those who were employed rather than from re-employment of those who had lost a job. In particular, though employment did not reach pre-pandemic levels by the third quarter of 2021, employed RTW sample members had increasing earnings in 2021.

This analysis also finds that the changes in employment and earnings levels from 2019 to 2021 did not vary with race/ethnicity or gender. However, though changes in employment did not vary by education level, individuals with less than a bachelor's degree had a substantially larger decrease in earnings during 2020 and substantially smaller increase in earnings during 2021 than did those with a bachelor's degree or more. This pattern of findings means that the overall increase in earnings during 2021 was driven primarily by those workers with more education.

Finally, sample members' increase in UI benefits during 2020 offset their decrease in earnings, such that total employment-related income remained steady during 2020. Thus, RTW sample members as a group endured the 2020 recession without a substantial loss in total employment-related income, despite the substantial drop in employment. This pattern did not vary by gender but varied somewhat by race/ethnicity and education level. Because White non-Hispanic workers had a smaller increase in UI benefits during 2020 than did all other racial/ethnic groups combined, they likewise had a smaller increase in total employment-related income during 2020. By education, during 2020, the larger increase in UI benefits among those with less than a bachelor's degree offset their larger decrease in earnings, such that the overall change in total employment-related income did not vary by education during 2020.

The patterns for the RTW sample are different from the national trends. In national data, women and workers of color generally were disproportionately negatively affected by the recession. The different results reported here might be explained by the demographics of the RTW sample. It was somewhat older, with higher levels of education and lower levels of households with younger children. The findings also indicate that UI played an important role in maintaining workers' income during the economic downturn, mitigating the potential negative economic consequences across numerous groups.

# Appendix

This appendix provides additional technical details for the analysis of the economic outcomes of applicants to the Ready to Work (RTW) Partnership Grant program before and during the COVID pandemic. Section A.1 provides additional information about the RTW grant program, its evaluation, and the study sample for that evaluation. Section A.2 provides additional technical detail on the data used for the brief's analysis. Section A.3 provides additional detail for the results reported.

## A.1 The Ready to Work Grant Program, Evaluation, and Sample

The U.S. Department of Labor (DOL) funded the Ready to Work Partnership Grant Program to establish local programs that might prove effective in preparing long-term unemployed and underemployed U.S. workers for employment in higher-paying middle- and high-skill jobs (DOL/ETA 2014). Per DOL guidance, targeted workers included those who had lost their jobs during or after the 2007-2009 recession and who either remained unemployed (for 27 consecutive weeks or more) or were underemployed (meaning those who had obtained short-term or part-time employment but had not yet found a full-time job in line with their previous level of skill or earnings). Operating between 2015 and 2019, the RTW programs were to use the funds to provide such workers with a range of customized services including staff guidance on career planning, occupational training, work-based training, employment readiness courses, and job search assistance.

To understand the implementation of the RTW grant program and its impact on participants' earnings and employment, the RTW Evaluation, conducted by Abt Associates and MEF Associates for DOL's Employment and Training Administration, included an implementation study and an experimental impact study. See Martinson et al. (2017) and Copson et al. (2020) for the findings of the implementation study. See Klerman, Herr, Martinson, and Copson (2022) and Herr, Klerman,

Martinson, and Copson (2022) for the results of the Interim Impact Study through 18 months after program application, and Klerman, Herr, and Martinson (2022) and Herr, Klerman, and Martinson (2022) for the results of the Final Impact Study through three to four years after program application.

The RTW Evaluation assessed the following four purposively selected RTW programs:

- Maryland Tech Connection, offered by the Anne Arundel Workforce Development Corporation in Maryland, largely in the Baltimore/Washington, DC corridor;
- Skills to Work in Technology and Job Search Accelerator, offered by Jewish Vocational Service, in the San Francisco Bay Area;
- Finger Lakes Hired, offered by RochesterWorks! in the Rochester, NY area; and
- Reboot Northwest, offered by Worksystems Inc. (WSI) in the Portland, OR/Vancouver, WA areas.

To estimate the impact of the RTW programs on participant outcomes, the evaluation used a random assignment experimental design. Over a three-year period (July 2015 to August 2018), grantees used a lottery-like process to randomly assign eligible applicants either to a program group that had access to the RTW program services or to a control group that was not offered the RTW services but had access to other resources in the community. The evaluation assessed impacts on services received, employment, and earnings. The follow-up period for the evaluation extended through late 2021, spanning the period before and after the emergence of COVID-19.

Because the RTW programs aimed to prepare workers for higher-paying middle- or high-skill jobs, the programs recruited participants with sufficient experience or education to move into such jobs. The sample for the RTW Evaluation was therefore generally older and more educated than the general population of long-term unemployed workers in 2015 to 2018 and those seeking services under the Workforce Innovation and Opportunity Act.<sup>20</sup>

## A.1 The Ready to Work Grant Program, Evaluation, and Sample

Exhibit A.1-1 reports the characteristics of the full RTW sample. (The analysis for this brief combines the samples for the four grantees included in the RTW Evaluation and pools the program and control groups.)

### Exhibit A.1-1: Characteristics of the RTW Sample

Characteristic	Study Sample Mean
Average age on January 1, 2020 (years)	47.8
Youngest child age 10 or younger on January 1, 2020 (%)	16
Race (%)	
Asian	11
Black or African American	26
White	54
American Indian or Alaska Native	1
Native Hawaiian or Other Pacific Islander	0
Other or multiple races	8
Hispanic ethnicity (%)	7
Gender (%)	
Women	48
Men	52
Education level (%)	
High school diploma or less	10
Some college credit but no degree	16
Technical or associate's degree	13
Bachelor's degree	40
Master's degree or more	22

SOURCE: Ready to Work Evaluation Baseline Information Form.

SAMPLE: 3,553 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the National Directory of New Hires (NDNH).

NOTES: Exhibit reports average age and the percentage of the sample with a child age 10 or younger as of January 1, 2020. All other characteristics were measured when the individual applied to the given RTW program (between Summer 2015 and Summer 2018). In order to report baseline summary statistics for the analysis sample (those 3,553 RTW applicants with available NDNH data), the evaluation provided data from the Baseline Information Form to the Office of Child Support Enforcement (OCSE) to be linked to the NDNH data. (The evaluation had access only to de-identified NDHD data.) In order to protect against reidentification, OCSE would not link date of random assignment or date of birth to the NDNH data. For that reason, average age and the percentage of the sample with children age 10 and younger could not be calculated for the analysis sample. Those statistics are therefore reported for the full sample of 3,612 individuals in the Ready to Work Evaluation sample.

## A.2 NDNH Data

### A.2 NDNH Data

The RTW Evaluation used administrative data from the National Directory of New Hires (NDNH) as the primary source of earnings and employment information.<sup>21</sup> The NDNH, which is compiled and maintained by the Office of Child Support Enforcement (OCSE) in the U.S. Department of Health and Human Services, is a national database of new hire date, quarterly wages, and Unemployment Insurance (UI) data submitted to OCSE by State Directories of New Hires, employers, and state workforce agencies, augmented with federal government payroll information.<sup>22</sup>

Because the NDNH captures information for all federal jobs and all jobs covered by UI, it provided quarterly earnings data for almost the full study sample, with information from the vast majority of their jobs.<sup>23</sup> These records do

not, however, include information for jobs that are “off the books” or for other types of jobs for which workers do not receive a W-2 form, such as self-employment or work as an independent contractor, employment in service for a relative, domestic service, and some casual employment “not in the course of the employer’s business.”<sup>24</sup>

This brief’s analysis uses NDNH quarterly data on sample members’ earnings and UI benefits received. It also infers quarterly employment based on quarterly earnings (i.e., non-zero earnings). Using data from the first quarter of 2019 (2019q1) through the third quarter of 2021 (2021q3), this analysis focuses on four economic outcomes: (1) employment, (2) earnings, (3) UI benefits received, and (4) total “employment-related income,” defined as the sum of earnings and UI benefits.

## A.3 Detailed Results

### A.3 Detailed Results

This section provides additional technical detail for the results reported on the economic outcomes for the RTW study sample before and during the COVID-19 pandemic.

Exhibit A.3-1 provides details for the results plotted in Exhibit 2. For each of the four outcomes (employment, earnings, UI benefits, and total employment-related income), Exhibit A.3-1 reports the mean quarterly outcome and its standard deviation, for 2019q1 through 2021q3.

**Exhibit A.3-1: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income for the Full RTW Sample, 2019q1-2021q3**

Quarter	Employment		Earnings		Unemployment Insurance Benefits		Employment-Related Income	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
2019q1	68.0	46.7	8,603	10,610	131	739	8,739	10,595
2019q2	69.6	46.0	9,253	10,293	121	719	9,379	10,260
2019q3	69.7	46.0	9,438	10,669	131	753	9,575	10,630
2019q4	70.0	45.8	10,037	11,199	123	749	10,165	11,148
2020q1	68.9	46.3	10,270	12,071	128	750	10,403	12,034
2020q2	63.9	48.0	9,918	12,484	797	2,303	10,720	12,231
2020q3	61.7	48.6	9,412	11,783	1,157	2,791	10,574	11,326
2020q4	60.7	48.9	10,324	12,999	768	2,024	11,097	12,639
2021q1	59.3	49.1	9,787	13,201	894	2,310	10,678	12,814
2021q2	60.7	48.9	10,410	13,666	826	2,376	11,229	13,308
2021q3	59.9	49.0	10,488	14,258	617	1,943	11,103	13,991

KEY: S.D. = standard deviation.

SOURCE AND TIME PERIOD: National Directory of New Hires (NDNH); 2019q1 through 2021q3.

SAMPLE: 3,553 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH.

## A.3 Detailed Results

Exhibit A.3-2 provides detail corresponding to the results plotted in Exhibit 3, comparing outcomes for those members of the RTW sample with less than a bachelor's degree to those with a bachelor's degree or more. Each panel of Exhibit

A.3-2 reports the mean and standard deviation for the given quarterly outcome (e.g., employment in 2019q1) for both groups, reports the difference, and the *p*-value associated with the test for equality of the two means via a two-sided t-test.

**Exhibit A.3-2: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Education Level, 2019q1-2021q3**

Quarter	Less than a Bachelor's Degree		Bachelor's Degree or More		Difference	<i>p</i> -Value
	Mean	S.D.	Mean	S.D.		
<b>Employment</b>						
2019q1	67.2	47.0	68.6	46.4	-1.4	.407
2019q2	68.2	46.6	70.8	45.5	-2.6	.108
2019q3	67.1	47.0	71.4	45.2	-4.3***	.008
2019q4	68.3	46.5	71.2	45.3	-2.9*	.071
2020q1	67.8	46.7	69.7	46.0	-1.9	.240
2020q2	61.8	48.6	65.4	47.6	-3.6**	.036
2020q3	58.1	49.4	64.2	48.0	-6.1***	.000
2020q4	58.3	49.3	62.4	48.4	-4.1**	.014
2021q1	56.2	49.6	61.3	48.7	-5.1***	.003
2021q2	57.1	49.5	63.1	48.3	-6.0***	.000
2021q3	57.9	49.4	61.3	48.7	-3.4**	.047
<b>Earnings</b>						
2019q1	6,296	7,242	10,083	12,038	-3,788***	<.001
2019q2	6,626	7,327	10,924	11,475	-4,298***	<.001
2019q3	6,715	7,780	11,168	11,818	-4,453***	<.001
2019q4	7,191	7,897	11,844	12,520	-4,652***	<.001
2020q1	7,137	8,566	12,257	13,455	-5,121***	<.001
2020q2	6,714	9,022	11,930	13,852	-5,217***	<.001
2020q3	6,272	8,144	11,391	13,211	-5,118***	<.001
2020q4	7,064	9,024	12,411	14,608	-5,348***	<.001
2021q1	6,453	8,830	11,908	14,961	-5,456***	<.001
2021q2	6,847	9,440	12,669	15,346	-5,822***	<.001
2021q3	6,871	9,182	12,768	16,283	-5,896***	<.001
<b>Unemployment Insurance Benefits</b>						
2019q1	134	753	131	736	4	.888
2019q2	130	715	117	727	13	.600
2019q3	159	806	116	724	43	.109
2019q4	131	775	119	739	12	.656
2020q1	159	776	108	734	51*	.055
2020q2	947	2,530	713	2,162	233***	.005



## A.3 Detailed Results

Quarter	Less than a Bachelor's Degree		Bachelor's Degree or More		Difference	p-Value
	Mean	S.D.	Mean	S.D.		
2020q3	1,370	2,952	1,029	2,684	342***	.001
2020q4	870	2,165	699	1,931	171**	.018
2021q1	1,059	2,432	792	2,224	267***	.001
2021q2	1,014	2,461	705	2,307	308***	.000
2021q3	792	2,112	509	1,823	283***	<.001
<b>Employment-Related Income</b>						
2019q1	6,430	7,223	10,223	12,023	-3,793***	<.001
2019q2	6,756	7,316	11,052	11,433	-4,295***	<.001
2019q3	6,874	7,735	11,295	11,784	-4,420***	<.001
2019q4	7,322	7,845	11,974	12,467	-4,651***	<.001
2020q1	7,295	8,527	12,377	13,424	-5,081***	<.001
2020q2	7,660	8,895	12,654	13,563	-4,994***	<.001
2020q3	7,643	7,824	12,430	12,720	-4,787***	<.001
2020q4	7,934	8,750	13,122	14,217	-5,188***	<.001
2021q1	7,511	8,530	12,697	14,554	-5,186***	<.001
2021q2	7,860	9,138	13,366	14,992	-5,506***	<.001
2021q3	7,663	8,951	13,274	16,026	-5,611***	<.001

KEY: S.D. = standard deviation.

SOURCE AND TIME PERIOD: National Directory of New Hires (NDNH); 2019q1 through 2021q3.

SAMPLE: 3,521 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their education level at application to the given RTW program (1,339 with less than a bachelor's degree and 2,182 with a bachelor's degree or more).

NOTES: Reported difference may not equal the difference between the reported mean for those with less than a bachelor's degree and the reported mean for those with a bachelor's degree or more because of rounding. Statistical significance based on two-sided t-tests; significance levels are as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

## A.3 Detailed Results

Exhibits A.3-3 and A.3-4 provide detail corresponding to the results plotted in Exhibits 4 and 5. They provide the same information as Exhibit A.3-2, but instead of education

level compare outcomes for White non-Hispanic workers versus all other racial/ethnic subgroups (Exhibit A.3-3) and for women versus men (Exhibit A.3-4).

### Exhibit A.3-3: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Race/Ethnicity, 2019q1-2021q3

Quarter	White Non-Hispanic		All Other Racial/Ethnic Groups		Difference	p-Value
	Mean	S.D.	Mean	S.D.		
<b>Employment</b>						
2019q1	68.5	46.5	68.8	46.4	-0.3	.866
2019q2	69.7	46.0	70.9	45.4	-1.2	.460
2019q3	68.8	46.4	71.8	45.0	-3.0*	.060
2019q4	70.1	45.8	71.2	45.3	-1.1	.499
2020q1	68.1	46.6	70.5	45.6	-2.4	.138
2020q2	63.7	48.1	65.4	47.6	-1.7	.291
2020q3	62.0	48.6	62.5	48.4	-0.5	.762
2020q4	59.7	49.1	62.7	48.4	-3.0*	.072
2021q1	58.1	49.4	62.0	48.6	-3.9**	.023
2021q2	59.0	49.2	63.4	48.2	-4.4**	.010
2021q3	59.4	49.1	61.2	48.7	-1.8	.296
<b>Earnings</b>						
2019q1	9,063	10,436	8,342	10,793	721*	.052
2019q2	9,751	10,767	8,921	9,654	830**	.020
2019q3	9,823	10,945	9,308	10,348	515	.166
2019q4	10,472	11,615	9,840	10,793	632	.106
2020q1	10,700	12,607	10,031	11,576	669	.113
2020q2	10,002	12,876	10,086	12,187	-84	.848
2020q3	9,607	12,229	9,409	11,402	198	.631
2020q4	10,448	13,197	10,372	12,756	75	.868
2021q1	9,709	12,862	10,141	13,714	-431	.353
2021q2	10,262	13,443	10,640	13,778	-378	.427
2021q3	10,550	14,323	10,403	13,705	147	.764
<b>Unemployment Insurance Benefits</b>						
2019q1	150	815	103	621	47*	.063
2019q2	147	828	89	575	59**	.018
2019q3	150	860	109	628	42	.112
2019q4	149	845	88	623	61**	.018
2020q1	149	822	109	695	40	.133
2020q2	899	2,491	693	2,116	206**	.011
2020q3	1,032	2,620	1,316	3,023	-285***	.004

## A.3 Detailed Results

Quarter	White Non-Hispanic		All Other Racial/Ethnic Groups		Difference	p-Value
	Mean	S.D.	Mean	S.D.		
2020q4	781	2,192	737	1,843	45	.527
2021q1	853	2,321	945	2,330	-92	.257
2021q2	784	2,240	897	2,579	-113	.182
2021q3	601	1,831	656	2,105	-56	.420
<b>Employment-Related Income</b>						
2019q1	9,219	10,388	8,451	10,813	768	.038
2019q2	9,904	10,713	9,016	9,642	888	.013
2019q3	9,979	10,891	9,423	10,325	556	.133
2019q4	10,628	11,551	9,934	10,753	693	.075
2020q1	10,855	12,563	10,146	11,540	708	.092
2020q2	10,907	12,603	10,786	11,943	121	.778
2020q3	10,645	11,840	10,732	10,849	-87	.827
2020q4	11,235	12,852	11,116	12,379	119	.786
2021q1	10,551	12,488	11,092	13,296	-541	.230
2021q2	11,027	13,072	11,543	13,414	-517	.264
2021q3	11,139	14,046	11,066	13,431	73	.879

KEY: S.D. = standard deviation.

SOURCE AND TIME PERIOD: National Directory of New Hires (NDNH); 2019q1 through 2021q3.

SAMPLE: 3,286 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their race and ethnicity at application to the given RTW program (1,698 White non-Hispanic sample members and 1,588 sample members of all other racial/ethnic groups: individuals who are Hispanic, American Indian or Alaskan native, Asian, Black or African American, Native Hawaiian or Pacific Islander, or any other race or multiple races).

NOTES: Reported difference may not equal the difference between the reported mean for White non-Hispanic individuals and the reported mean for all other racial/ethnic groups because of rounding. Statistical significance based on two-sided t tests; significance levels are as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

## A.3 Detailed Results

**Exhibit A.3-4: Quarterly Employment, Earnings, UI Benefits, and Employment-Related Income by Gender, 2019q1-2021q3**

Quarter	Women		Men		Difference	p-Value
	Mean	S.D.	Mean	S.D.		
<b>Employment</b>						
2019q1	68.7	46.4	67.7	46.8	1.0	.519
2019q2	70.1	45.8	69.5	46.1	0.6	.710
2019q3	69.8	45.9	69.7	46.0	0.1	.969
2019q4	70.4	45.7	69.8	45.9	0.6	.698
2020q1	68.8	46.4	69.1	46.2	-0.3	.825
2020q2	63.7	48.1	64.3	47.9	-0.6	.696
2020q3	62.1	48.5	61.5	48.7	0.6	.710
2020q4	61.1	48.8	60.6	48.9	0.5	.773
2021q1	59.6	49.1	59.2	49.2	0.4	.775
2021q2	61.1	48.8	60.5	48.9	0.6	.747
2021q3	60.3	49.0	59.7	49.1	0.6	.726
<b>Earnings</b>						
2019q1	8,608	11,401	8,649	9,833	-42	.908
2019q2	9,053	10,401	9,474	10,181	-422	.226
2019q3	9,176	10,868	9,714	10,479	-538	.136
2019q4	9,757	11,209	10,321	11,180	-564	.137
2020q1	10,029	12,178	10,527	11,990	-498	.223
2020q2	9,673	12,414	10,164	12,545	-490	.245
2020q3	9,392	12,255	9,439	11,346	-46	.908
2020q4	10,199	13,052	10,484	12,943	-285	.517
2021q1	9,911	13,942	9,727	12,560	183	.683
2021q2	10,597	14,011	10,259	13,390	337	.467
2021q3	10,541	14,878	10,446	13,709	95	.844
<b>Unemployment Insurance Benefits</b>						
2019q1	114	684	149	795	-35	.165
2019q2	107	681	137	760	-30	.215
2019q3	134	767	132	750	2	.936
2019q4	107	632	137	846	-29	.242
2020q1	106	619	149	857	-43*	.085
2020q2	806	2,204	803	2,413	3	.968
2020q3	1,169	2,743	1,154	2,851	16	.869
2020q4	746	1,900	784	2,137	-38	.577
2021q1	871	2,152	921	2,454	-50	.524
2021q2	856	2,533	804	2,228	52	.519
2021q3	653	2,059	595	1,850	58	.379

## A.3 Detailed Results

Quarter	Women		Men		Difference	p-Value
	Mean	S.D.	Mean	S.D.		
<b>Employment-Related Income</b>						
2019q1	8,732	11,416	8,798	9,785	-66	.854
2019q2	9,170	10,370	9,612	10,145	-441	.204
2019q3	9,321	10,820	9,846	10,447	-525	.145
2019q4	9,876	11,169	10,458	11,119	-581	.123
2020q1	10,147	12,144	10,676	11,950	-529	.194
2020q2	10,491	12,180	10,967	12,270	-476	.250
2020q3	10,573	11,797	10,592	10,886	-20	.960
2020q4	10,958	12,672	11,268	12,601	-311	.467
2021q1	10,776	13,548	10,648	12,176	128	.769
2021q2	11,441	13,652	11,064	13,031	377	.404
2021q3	11,189	14,598	11,041	13,452	148	.755

KEY: S.D. = standard deviation.

SOURCE AND TIME PERIOD: National Directory of New Hires (NDNH); 2019q1 through 2021q3.

SAMPLE: 3,506 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH and who reported their gender at application to the given RTW program (1,682 women and 1,824 men).

NOTES: Reported difference may not equal the difference between the reported mean for women and the reported mean for men because of rounding. Statistical significance based on two-sided t-tests; significance levels are as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

## A.3 Detailed Results

Exhibit A.3-5 below provides detailed results for the information on changes over time reported in Exhibits 3 through 5. For each of the four economic outcomes, Exhibit A.3-5 reports the change over time from 2019q3 to 2020q3, and from 2020q3 to 2021q3. The first column reports these change-over-time outcomes for

the sample as a whole. The next three panels compare these changes over time for the three subgroup analyses: by education level, by race/ethnicity, and by gender. Each panel also reports the  $p$ -value associated with the test for equality of the change over time for the two groups in the given subgroup analysis via a two-sided t-test.

### Exhibit A.3-5: Changes in Employment, Earnings, UI Benefits, and Employment-Related Income by Education Level, Race/Ethnicity, and Gender

Group	Education Level				Race/Ethnicity			Gender		
	Full RTW Study Sample	Less than Bachelor's Degree	Bachelor's Degree or More	$p$ -Value	White non-Hispanic	All Other Groups	$p$ -Value	Women	Men	$p$ -Value
Change from 2019q3 to 2020q3 (pp)	-8.0	-9.0	-7.2	.250	-6.8	-9.3	.110	-7.7	-8.3	.716
Change from 2020q3 to 2021q3 (pp)	-1.8	-0.2	-2.9	.093*	-2.5	-1.3	.422	-1.8	-1.8	.985
Change from 2019q3 to 2020q3 (\$)	-26	-443	222	.011**	-216	101	.266	216	-276	.077*
Change from 2020q3 to 2021q3 (\$)	1,076	599	1,377	.014**	943	994	.884	1,149	1,007	.686
Change from 2019q3 to 2020q3 (\$)	1,026	1,211	913	.003***	881	1,208	.001***	1,035	1,022	.888
Change from 2020q3 to 2021q3 (\$)	-540	-579	-520	.532	-431	-660	.015**	-516	-559	.633
Change from 2019q3 to 2020q3 (\$)	1,000	768	1,135	.127	666	1,308	.015**	1,252	746	.052*
Change from 2020q3 to 2021q3 (\$)	529	20	845	.008***	494	335	.642	616	448	.625
<b>Sample Size:</b>	<b>3,553</b>	<b>1,339</b>	<b>2,182</b>		<b>1,698</b>	<b>1,588</b>		<b>1,682</b>	<b>1,824</b>	

KEY: pp=percentage point.

SOURCE AND TIME PERIOD: National Directory of New Hires; 2019q1 through 2021q3.

SAMPLE: 3,553 individuals who applied to one of four RTW grantee programs included in the RTW Evaluation who had available data from the NDNH. Sample sizes for subgroups do not sum to the sample size for the full sample because of missing data for the given demographic characteristic.

NOTES: The first two columns of each panel compare the average change over time in the given measure (e.g., the change in employment levels between 2019q3 and 2020q3) between the two groups within a subgroup analysis (e.g., women versus men). Reported change over time for a given subgroup (e.g., women) may not equal the difference between the reported mean for the given subgroup in the given quarters (e.g., 2019q3 and 2020q3) reported in Exhibits A.3-2 through A.3-4 because of rounding. The third column in each panel reports the  $p$ -value associated with the test of equality of the outcome between the two groups, based on a two-sided t-test. Significance levels are as follows: \*\*\* = 1 percent; \*\* = 5 percent; \* = 10 percent.

## Endnotes:

- <sup>1</sup> “Applying for and Receiving Unemployment Insurance Benefits during the Coronavirus Pandemic.” Monthly Labor Review, U.S. Bureau of Labor Statistics, September 2021 (<https://www.bls.gov/opub/mlr/2021/article/applying-for-and-receiving-unemployment-insurance-benefits-during-the-coronavirus-pandemic.htm>, accessed May 20, 2022).
- <sup>2</sup> “Teleworking and Lost Work during the Pandemic: New evidence from the CPS,” Monthly Labor Review, U.S. Bureau of Labor Statistics, July 2021 (<https://www.bls.gov/opub/mlr/2021/article/teleworking-and-lost-work-during-the-pandemic-new-evidence-from-the-cps.htm>, accessed May 20, 2022).
- <sup>3</sup> “The COVID-19 Pandemic’s Evolving Impacts on the Labor Market: Who’s Been Hurt and What We Should Do,” Brad J. Hershbein and Harry Holzer, Upjohn Institute Working Papers, 2-11-221.
- <sup>4</sup> As noted in Section A.1 of the appendix, the evaluation of the RTW program used an experimental design that randomly assigned eligible applicants either to a program group that had access to the RTW program services or to a control group that did not have access. The study sample for this analysis includes all applicants to the four RTW programs included in the evaluation, combining those assigned to the program group with those assigned to the control group.
- <sup>5</sup> For sample members at three of the four RTW programs included in the evaluation (including both the program group and control group), within three years after application, employment levels were approximately 10 percentage points higher than levels observed two years before applying to the program; earnings were between approximately 25 and 45 percent higher. (The evaluation could observe earnings and employment only up to two years before application, but this window extended to approximately one year before the dramatic fall in employment and earnings observed immediately before applying to the given RTW program.) The one exception was for sample members who applied to the Finger Lakes Hired RTW program, located in the Rochester, NY area, where a weaker economic recovery between 2015 and 2020 appears to have led to employment rates barely returning to the level of two years before application and earnings levels remaining approximately 13 percent lower. For more detail, see the Ready to Work Partnership Grant Evaluation: Findings from the Final Impact Study of Four Employment Services Programs for the Long-Term Unemployed (Klerman, Herr, and Martinson, 2022).
- <sup>6</sup> When comparing the labor market outcomes of the sample as a whole (see Section 1), the analysis focuses on the following three time periods: (i) from the first quarter of 2019 through the first quarter of 2020, (ii) from the first quarter of 2020 through the third quarter of 2020, and (iii) from the third quarter of 2020 to the third quarter of 2021. When comparing patterns between subgroups (e.g., by education level, see Section 2), the evaluation focuses on changes over two time periods: (i) from the third quarter of 2019 through the third quarter of 2020, and (ii) from the third quarter of 2020 to the third quarter of 2021.
- <sup>7</sup> Throughout this brief the discussion focuses only on those results that are statistically significant at the 5 percent level or more (for changes over time in Section 1, and for differences across subgroups and/or changes over time in Section 2).
- <sup>8</sup> See Appendix B of the Ready to Work Partnership Grant Evaluation: Findings from the Final Impact Study of Four Employment Services Programs for the Long-Term Unemployed (Herr, Klerman and Martinson, 2022) for a comparison of the RTW sample to (1) the general long-term unemployed population (using data from the Current Population

Survey); and (2) the general workforce system population (using data from the Workforce Innovation and Opportunity Act administrative data). The analysis finds that the RTW sample is older and more educated than both comparison populations.

- <sup>9</sup> Using NDNH quarterly earnings data, employment is inferred based on the presence of positive earnings in the given quarter. Because the first quarter of 2020 includes information for January and February, namely before the shutdown starting in March 2020, job losses due to COVID will not be evident in the quarterly data until the second quarter of 2020. Furthermore, to the extent that workers who initially lost their jobs in March or April 2020 began working again in May or June (namely later in the second quarter of 2020) in a job covered by the NDNH, the temporary loss of employment will not be evident in the quarterly data.
- <sup>10</sup> Average quarterly employment levels dropped by 6 percentage points between the fourth quarter of 2019 and the second quarter of 2020, and by 11 percentage points between the fourth quarter of 2019 and the first quarter of 2021 (both differences are statistically significantly different from zero at the 1 percent level).
- <sup>11</sup> Average quarterly earnings rose on average by +\$1,666 between the first quarter of 2019 and the first quarter of 2020, then fell on average by -\$857 between the first quarter of 2020 and the third quarter of 2020 (both changes are statistically significantly different from zero at the 1 percent level).
- <sup>12</sup> Among those who were employed in both the fourth quarter of 2019 and the third quarter of 2020, average quarterly earnings remained stable (dropping on average by -\$153, not statistically significantly different from zero).
- <sup>13</sup> Among those who were employed in the third quarters of both 2020 and 2021, average quarterly earnings rose from \$15,884 to \$18,389

(or by 16 percent), statistically significantly different from zero at the 1 percent level.

- <sup>14</sup> The Families First Coronavirus Response Act, signed into law on March 27, 2020, expanded states' ability to offer Unemployment Insurance to workers who would not ordinarily be eligible for Unemployment Insurance benefits, such as the self-employed, independent contractors, and those who were previously employed part-time (specific eligibility criteria varied by states). The Coronavirus Aid, Relief, and Economic Security (CARES) Act also allowed states to increase unemployment benefits (by +\$600 per week from March 29, 2020, through July 25, 2020, and +\$300 per week from December 27, 2020, through September 4, 2021) under the Federal Pandemic Unemployment Compensation program; to extend unemployment benefits by up to 13 weeks under the Pandemic Emergency Unemployment Compensation program; and to allow up to an additional 39 weeks under the Pandemic Unemployment Assistance program. See <https://www.dol.gov/coronavirus/unemployment-insurance> and <https://www.whitehouse.gov/american-rescue-plan/> for more details.
- <sup>15</sup> Because the \$300 extra weekly UI benefit from the CARES Act expired during the third quarter of 2021, it is likely that the level of UI benefits dropped after the third quarter of 2021 (the last quarter shown in Exhibit 2).
- <sup>16</sup> The federal government made three rounds of COVID stimulus payments ("Economic Impact Payments"): up to \$1,200 per adult received in April 2020, \$600 in December 2020 or January 2021, and \$1,400 in March 2021, depending on prior income levels (<https://www.usa.gov/covid-stimulus-checks>). These funds were not classified as earnings subject to UI taxes, and they are not covered in the NDNH database. The first stimulus payment of \$1,200 was available to 93 percent of American adults and had no work requirement or requirement that recipients had previously paid federal taxes (<https://www.vox.com/22600143/poverty-us-covid-19-pandemic-stimulus-checks>). A 2020 survey by the Bureau of Labor Statistics



and other federal agencies found that 84 percent of respondents reported that they had received, or expected to receive, a stimulus payment in 2020 (<https://www.bls.gov/opub/btn/volume-9/receipt-and-use-of-stimulus-payments-in-the-time-of-the-covid-19-pandemic.htm>). Because “total employment-related income” does not include the stimulus payments, it therefore understates financial resources available to most workers in 2020 and 2021.

<sup>17</sup> Although the change in earnings for those with at least a bachelor’s degree from the third quarter of 2019 to the third quarter of 2020 is positive (+\$222), the change in earnings is negative when measured from the fourth quarter of 2019 to the third quarter of 2020 (but is still significantly smaller than the change in that same period for those without a bachelor’s degree). The evaluation focuses on the change in the one-year period from the third quarter of 2019 to the third quarter of 2020 to allow for the seasonality of earnings.

<sup>18</sup> Although the change in average quarterly earnings for those RTW sample members who are not White non-Hispanic is positive from the third quarter of 2019 to the third quarter of 2020 (+\$101), this group experienced a decrease in average quarterly earnings by the third quarter of 2020 when measured from either the fourth quarter of 2019 (-\$431) or the first or second quarters of 2020 (-\$622 and -\$677, respectively). In all instances, those changes over time are not significantly different from the corresponding decrease in average quarterly earnings for White non-Hispanic members of the RTW sample at the 5 percent level via a two-sided t-test. As noted above, the evaluation focuses on the change in the one-year period from the third quarter of 2019 to the third quarter of 2020 to allow for the seasonality of earnings.

<sup>19</sup> For the RTW sample, there is weak evidence that men had a larger drop in earnings from the third quarter of 2019 to the third quarter

of 2020 (-\$276 versus -\$216 among women) and a smaller rise in total employment-related income during this same period (+\$746 versus +\$1,252 among women); both differences are statistically significantly different at the 10 percent level (see Appendix Exhibit A.3-5).

<sup>20</sup> See Appendix B of Herr, Klerman, and Martinson (2022) for a comparison of the RTW Evaluation sample versus workers enrolled in Workforce Innovation and Opportunity Act and the long-term unemployed more generally during this period.

<sup>21</sup> The RTW Evaluation also used data collected in a follow-up survey conducted approximately 18 months after individuals applied to the given RTW program. This brief does not rely on that data because the survey ended in January 2020, before the COVID-19 pandemic began.

<sup>22</sup> To collect data for the RTW study sample members, OCSE performed a match to a record in the Social Security Administration (SSA) database based on a combination of name and Social Security Number (SSN) before including that record in the NDNH dataset for use in the evaluation. Those sample members who were not matched in the SSA database are considered “missing” for these purposes, because their employment records were not available. Fewer than 2 percent of all RTW sample members failed to match name and SSN against the SSA master records.

<sup>23</sup> Because wage records must be matched to study members by SSN, this analysis may underestimate earnings if an individual’s SSN was reported incorrectly by the worker or employer to the state agency, or by the worker to RTW grantee staff.

<sup>24</sup> Because contract work is relatively more common in the IT sector (<https://blog.talentwave.com/research-reveals-the-top-10-industries-for-independent-workers>), and all four RTW grantees focused on IT as one of their target sectors, it is possible that the analysis is systematically missing such earnings data for sample members working as IT contract workers.

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