



## **U.S. TREASURY DEPARTMENT**

# **ESTIMATES OF NEWLY HIRED EMPLOYEES ELIGIBLE FOR THE HIRE ACT TAX EXEMPTION**

July 12, 2010

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### **Executive Summary**

In his State of the Union address in January 2010, President Obama called on Congress to enact a tax credit for businesses that hire new workers. Less than two months later, Congress passed and the President, on March 18<sup>th</sup>, signed into law the Hiring Incentives to Restore Employment (HIRE) Act of 2010. The HIRE Act provides employers an incentive to hire workers who have been unemployed for 60 days or longer by exempting wages paid to these workers from the employer's 6.2 percent contribution of Social Security payroll taxes for the remainder of 2010. In addition, the HIRE Act allows employers to claim a tax credit of up to \$1,000 for each newly hired qualifying worker who is retained for one year. If, for example, an employer hires an unemployed worker and pays that worker \$40,000 in salary this year, the HIRE Act tax exemption will reduce the employer's payroll tax obligations by \$2,480 this year (6.2 percent of \$40,000), and, if the employer retains that worker for 52 weeks, the employer will receive in addition a \$1,000 tax credit, bringing the total tax savings to \$3,480.

Comprehensive data on the use of the HIRE Act from the Internal Revenue Service (IRS) will not be available until after employers file tax returns in 2011, but the Treasury Department has analyzed the extent to which employees are being hired who will qualify for the HIRE Act tax exemption using monthly Current Population Survey (CPS) data. Among the key findings are:

- From February to May of 2010, an estimated 4.5 million workers who had been unemployed for eight weeks or longer were hired by employers who are eligible for the HIRE Act payroll tax exemption. A qualifying employee must be unemployed for 60 days or longer prior to being hired, so the employers of these 4.5 million newly hired workers are eligible for the HIRE Act tax relief.
- Newly hired workers whose employers are eligible for the HIRE Act payroll tax exemption constitute 12.2 percent of all workers who were unemployed for eight weeks or longer since the law took effect.
- If the 4.5 million newly hired employees who are eligible for the HIRE Act tax exemption are employed for the rest of the year, their employers would be eligible for an estimated \$5.1 billion in payroll tax savings. Furthermore, if three quarters of the workers remain employed for 52 weeks, which is roughly consistent with historical turnover data for new hires, then their employers would receive another \$3.4 billion in tax relief with respect to these hires. As more unemployed workers are hired during the year, the potential tax savings will rise.
- The average unemployed worker who has been unemployed for two months or longer has been unemployed for about 10 months, so the HIRE Act tax exemption is well targeted at job seekers who are having particular difficulty in the job market.

The HIRE Act tax exemption is available for the remainder of 2010. Treasury's Office of Economic Policy will estimate the number of newly hired workers whose employers potentially qualify for the HIRE Act tax exemption and update this report monthly for the rest of the year.

## **Estimates of Newly Hired Employees Eligible for the HIRE Act Tax Exemption**

### **Introduction**

To provide an incentive for private sector employers to hire unemployed workers, the Hiring Incentives to Restore Employment (HIRE) Act of 2010 exempts wages paid during 2010 to newly hired long-term unemployed workers from the employer's 6.2 percent contribution of Social Security payroll taxes. It also provides a business tax credit to employers that retain those workers for at least one year. This report uses linked monthly data from the Current Population Survey (CPS) to provide an estimate of the number of hires to date that qualify for the HIRE Act tax exemption. Workers that qualify for the HIRE Act tax exemption must satisfy the following two requirements: (1) the worker must be hired between February 4, 2010 and December 31, 2010; (2) prior to being hired the worker must have not been employed for more than a total of 40 hours during the past 60 consecutive days. We estimate that 4.5 million workers were hired from February through May 2010 whose employers were eligible for the payroll tax exemption.

### **Background on the HIRE Act**

The HIRE Act was signed into law by President Obama on March 18, 2010. It provided two new tax provisions to encourage employers to hire certain previously unemployed workers. The first is a payroll tax exemption, which provides employers with an exemption from the employer's 6.2 percent Social Security payroll tax contribution on wages paid to qualifying employees. The payroll tax exemption is effective for wages paid from March 19, 2010 through December 31, 2010. The second provision is a general business tax credit for each newly hired qualified employee who is retained for at least 52 consecutive weeks. The credit is equal to 6.2 percent of wages paid to that employee over the 52 week period, up to a maximum credit of \$1,000. The HIRE Act tax exemption can be claimed by any taxable or tax-exempt non-governmental employer or a public institution of higher learning.<sup>1</sup>

The HIRE Act is intended to provide employers an incentive for hiring unemployed workers who have had particular difficulty finding a job. Eligibility is restricted to workers who have not been employed for more than a total of 40 hours during the past 60 consecutive days, which includes those who have been in the labor force but unemployed and those entering or re-entering the labor force.<sup>2</sup> There is no restriction on the number of hours that a qualifying employee must work—although the value of the tax incentive is affected by the qualified employee's earnings.

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<sup>1</sup> To be considered qualified employees, workers may neither be related to the qualified employer nor own a majority stake in the business. The self-employed and household employers are not eligible under the HIRE Act. Employers may apply the tax exemption to wages paid to a rehired employee who is otherwise a qualified employee.

<sup>2</sup> Qualified employees must certify by a signed affidavit stating that they meet this criterion.

The Act prevents employers from firing one worker in order to hire a different, qualifying worker.<sup>3</sup> The Act is temporary. Qualifying workers must be hired in the period starting on February 4, 2010 and ending on December 31, 2010. The Joint Committee on Taxation (JCT) estimates that the HIRE Act will cost the Treasury \$13.0 billion from 2010 to 2019.<sup>4</sup>

## **New Hires of Long-term Unemployed**

This report uses the CPS, which is the basis for official government labor force statistics, such as the unemployment rate. The CPS consists of a representative sample of about 50,000 housing units a month, and labor force questions are asked concerning all working-age adult members in the household. The labor force questions relate to the worker's labor force status in the CPS reference week, which is the week that contains the 12<sup>th</sup> day of the month. The specific date that a worker transitions from one labor force status to another is not reported.<sup>5</sup>

The rotation group design of the CPS allows us to create two-month linked samples by matching surveyed workers in one month to their records in the next month. This is possible for approximately three fourths of the CPS sample.

For this report, workers are identified as eligible for the tax exemption if they report that they have been unemployed for eight weeks or longer in the first month of the two-month period.<sup>6</sup> Eligible workers who report holding a job with a private employer in the second month of the two-month period are classified as qualifying for the tax exemption under the HIRE Act. The Appendix provides additional details on the construction of the two-month linked sample.

### *A. Exemption-Eligible Workers: Unemployed for Eight Weeks or More*

For this report, the categorization of workers by eligibility for the HIRE Act tax exemption is based on the reported duration of unemployment for unemployed workers in the reference week of the first month of the two-month linked sample. Workers who have been unemployed for eight weeks or longer in the first month of the two-month period would be eligible for the tax exemption if they were hired in the subsequent month. Workers who have been unemployed for four weeks or less in the first month of the two-month period would be ineligible for the tax exemption if they were hired in the subsequent month, because they would not meet the HIRE Act's 60 days of non-employment requirement in the reference week of the subsequent month.

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<sup>3</sup> New hires filling existing positions qualify only if the workers they are replacing left voluntarily or for cause.

<sup>4</sup> The JCT estimates that revenues will fall by \$4.2 billion in 2010, \$5.6 billion in 2011, \$2.4 billion in 2012, and less than \$500 million in each year from 2013.

<sup>5</sup> For example, a worker who reported being unemployed in the February CPS and then reported being employed in the March CPS may have been hired anytime in the period after the week containing February 12th through the week containing March 12th.

<sup>6</sup> This understates the number of eligible hires. See section C for additional details.

Workers who have been unemployed for between four and eight weeks in the first month of the two-month period form an ambiguous group that may or may not be eligible for the tax exemption, depending on exactly how long the worker has been unemployed prior to being hired. Because the CPS reports only the labor force status in the reference week and does not report the exact date on which workers transition from one labor force status to another, we do not know with certainty whether such workers meet the HIRE Act requirements, and therefore focus on those unemployed workers that have been unemployed for eight weeks or longer in the initial reference week.

Table 1 presents estimates of the unemployed population each month from February through May of 2010 and the share of these unemployed workers that would be eligible for the HIRE Act tax exemption if they were hired in the subsequent month. The table shows that a large share of the unemployed has been looking for work for at least eight weeks, and thus would qualify for the HIRE Act tax exemption should they be hired. In February 2010, 76 percent of unemployed workers were unemployed for eight weeks or longer, and in April 2010 that figure was more than 80 percent.

#### *B. Transition Rates into Private Employment for Exemption-Eligible Workers*

For a worker hired in the second month of the two-month linked sample, the CPS reports information on the type of job into which he or she was hired. This information is used to infer whether the worker is hired into an exemption-eligible job. For this report, a HIRE Act exemption-eligible job is defined as a private, non-self-employed job.

Table 2 reports the transition rates of workers who have been unemployed for eight weeks or longer. Workers can transition into private exemption-eligible employment, transition into exemption-ineligible employment, remain unemployed, or leave the labor force. Approximately two thirds of those unemployed for eight weeks or longer remained unemployed and continued looking for a job in the next month, and approximately one fifth exited the labor force.

Figure 1 presents monthly estimates of the transition rate into private exemption-eligible employment each month since January 2009. To give an indication of the precision of the estimated transition rates, plus and minus one standard error bands are indicated by dashed lines in the figure.<sup>7</sup> The transition rate into private exemption-eligible employment has averaged about 11.0 percent since January 2009. Since the HIRE Act went into effect, 12.2 percent of workers who had been unemployed for eight weeks or longer transitioned into private exemption-eligible employment.

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<sup>7</sup> Standard errors are computed using the sample weights provided by the CPS.

Based on the CPS data we find that the average unemployed worker who has been unemployed for two months or longer has been unemployed for about 10 months, so the HIRE Act tax exemption is well targeted at job seekers who are having particular difficulty in the job market.

### C. Estimated Number of Exemption-Eligible Hires

Workers who report being unemployed for eight weeks or longer who then transition into private employment represent hires for which the employers of those workers are eligible for the HIRE Act tax exemption. Table 3 presents estimates of the number of those exemption-eligible hires for the period following the passing of the HIRE Act along with their average weekly earnings. Since February 2010, more than one million exemption-eligible workers have been hired each month. The monthly total of exemption-eligible hires was highest in April (1.8 million workers). Some 4.5 million workers were hired from February through May 2010 whose employers were eligible for the HIRE Act payroll tax exemption.

This figure likely understates the number of eligible hires because it is based on the number of workers who reported being unemployed during the first month of the two-month linked sample and employed in the subsequent month. Workers who were out of the labor force and had not worked for 60 days as of the first month of our sample but were then hired in the subsequent month may qualify for the tax exemption, but are not included in our tabulations due to data limitations.<sup>8</sup>

Table 3 shows that the average weekly earnings of the newly hired eligible workers is \$513 in their new job, based on the CPS data. An exemption from the 6.2 percent Social Security payroll tax contribution on wages paid to the average newly hired worker would therefore equal \$32 a week. Based on the average value of the tax exemption, we estimate that if the 4.5 million employees who have been hired from February to May 2010 are employed for the rest of the year, employers would be eligible for \$5.1 billion in payroll tax savings as a result of the HIRE Act. Moreover, if three quarters of the workers remain employed for 52 weeks, which is roughly consistent with historical turnover data for new hires, then employers would receive another \$3.4 billion in tax relief with respect to these hires, for a total of \$8.5 billion in tax exemptions plus tax credits. These potential tax savings will grow over the course of the year as more unemployed workers are hired by private sector businesses.

The final cost to the government may be lower if employers of some qualified workers fail to take advantage of the tax exemption and credit. In addition, because the tax exemption reduces total compensation costs, private employers that receive the exemption may claim smaller income tax deductions, which would decrease the final cost to Treasury. Conversely, the final

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<sup>8</sup> Data limitations also prevent us from including workers that reported being employed in the first month but had worked less than 40 hours in the previous 60 days.

cost may exceed this estimate, because, as mentioned, employers may also claim the exemption for qualified employees who have not been identified in our sample due to data limitations.

#### *D. Demographic Characteristics and Industry of Exemption-Eligible Hires*

Using demographic characteristics reported in the CPS, Table 4 compares exemption-eligible workers hired since February 2010 with the broader population of unemployed workers along a number of dimensions. Prime age workers (ages 25-54 years old) and men represent a larger share of exemption-eligible hires than they do of all unemployed workers in general.<sup>9</sup> The education and race distribution of newly hired workers who are eligible for the HIRE Act tax exemption closely mirrors their distributions in the broader population of unemployed workers.

Table 5 provides a tabulation of the industry of exemption-eligible new hires, showing both their new industry and the industry in which they were employed prior to their unemployment. For comparison, the third column shows the industry prior to unemployment for all unemployed workers. Employers in the construction industry, in particular, have hired a large share of workers who are eligible for the HIRE Act tax exemption. Nearly one in five workers who are eligible for the exemption have been hired into the construction industry. In general, however, the industry distribution of employers who have hired workers eligible for the HIRE Act tax exemption is similar to the industry distribution of their newly hired workers prior to their job loss, and of the overall population of unemployed workers.

### **Conclusion**

Using linked monthly data from the CPS, this report estimates that approximately 4.5 million workers were hired from February through May 2010 whose employers were eligible for the payroll tax exemption under the HIRE Act. If these employees are employed for the rest of the year, employers would be eligible for \$5.1 billion in payroll tax savings as a result of the HIRE Act. Moreover, if three quarters of the workers remain employed for 52 weeks, which is roughly consistent with historical turnover data for new hires, then employers would be eligible for another \$3.4 billion in tax relief with respect to these hires, for a potential total of \$8.5 billion in tax exemptions plus tax credits so far. These potential tax savings will rise throughout the year, as the HIRE Act applies to workers hired through the end of 2010. The final cost to Treasury may be lower than the potential tax savings that are estimated in this report if employers of some qualified workers fail to take advantage of the HIRE Act tax exemption and credit. Conversely, the final cost may exceed our estimates because, as mentioned, employers may also claim the exemption for employees who were out of the labor force and not classified as unemployed for two months or longer in the CPS.

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<sup>9</sup> These differences are statistically significant at the 5 percent level.

## Data Appendix

### *The CPS Rotation Groups*

The CPS is divided into eight representative subsamples, called rotation groups. Housing units in each rotation group are interviewed for 4 consecutive months, followed by an 8-month break, and then interviewed for a final 4 consecutive months. In any give month, therefore, approximately 75 percent of households were interviewed in the preceding month. This report uses month-to-month linked CPS data from December 2008 through May 2010 to calculate month-to-month labor market transitions ending in January 2009 through to May 2010.

Two-month linked samples were created by matching surveyed workers in one month to their responses in the subsequent month. For example, the January 2010 CPS records were matched to February 2010 CPS records, and the February 2010 CPS records were matched to March 2010 CPS records, and so on. We used the CPS variables HHID HHNUM LINENO to match workers across months, as discussed in Madrian and Lefgren (1999) and Feng (2008). For most months in our sample, we were able to successfully match the records of 95 percent or more of workers that were supposed to be interviewed in two consecutive months. The average sample size of workers matched to the consecutive month who reported being unemployed for eight weeks or longer in the first month is 3,064.

### *Adjustments to CPS final weights:*

Because the sample consists of a subset of CPS respondents who could be matched with their response in the following month, the final weights (PWSSWGT) must be adjusted so that the estimates are correctly scaled. This is done by applying a factor to the final weights so that the sum of the weights equals BLS's official, non-seasonally adjusted estimate of the unemployed population in the initial month.

### *Estimating Average Wages*

Respondents are only asked about their usual weekly earnings in their 4th and 8th months in sample (called the Outgoing Rotation Group). Therefore, earnings information is available for only about 30 percent of the samples used to estimate eligible hires from February to May 2010.

## References

Feng, Shuaizhang (2008), "Longitudinal matching of recent current population surveys: Methods, non-matches and mismatches," *Journal of Economic and Social Measurement*, 33: 241-252

Madrian, Brigitte C., Lars John Lefgren (1999), "A Note on Longitudinally Matching Current Population Survey (CPS) Respondents," National Bureau of Economic Research Technical Working paper 247, November.

**Table 1: Estimated Number of Workers whose Employer Would be Eligible for the HIRE Act Tax Exemption if Hired**

Month	Number unemployed	Share of Unemployed		
		<u>Ineligible for HIRE Act Tax Exemption:</u> Unemployed 4 weeks or less	<u>Potentially Eligible for HIRE Act Tax Exemption:</u> Unemployed 4 and 8 weeks	<u>Eligible for HIRE Act Tax Exemption:</u> Unemployed 8 weeks or longer
Feb 2010	15,991,240	11%	13%	76%
Mar 2010	15,677,833	11%	9%	80%
Apr 2010	14,608,924	10%	9%	81%
May 2010	14,369,220	13%	10%	77%

Note: The total number of unemployed each month is the official, non-seasonally adjusted estimates, as reported by the Bureau of Labor Statistics. See text for description of the categorization of the unemployed by eligibility status for the HIRE Act tax exemption.

**Table 2: Monthly Transition Rates  
for Workers Unemployed ≥ 8 weeks**

Months	Total Workers Unemployed ≥ 8 weeks in 1 <sup>st</sup> Month	Employment Status in 2 <sup>nd</sup> Month			
		Private Exemption- Eligible Employment *	Other employment **	Still unemployed	Out of labor force
Dec, '08 to Jan, '09	6,465,697	9.3%	2.0%	66.7%	22.0%
Jan to Feb, 2009	7,973,379	10.3%	2.3%	67.4%	20.1%
Feb to Mar, 2009	9,014,765	11.0%	2.6%	66.3%	20.0%
Mar to Apr, 2009	9,829,540	14.2%	3.2%	64.1%	18.5%
Apr to May, 2009	9,691,569	11.1%	2.2%	67.0%	19.7%
May to Jun, 2009	9,753,553	11.2%	2.0%	68.7%	18.1%
Jun to Jul, 2009	9,934,851	11.8%	2.6%	67.3%	18.4%
Jul to Aug, 2009	10,618,786	10.1%	2.3%	66.6%	20.9%
Aug to Sep, 2009	10,868,047	11.3%	3.7%	65.7%	19.3%
Sep to Oct, 2009	11,040,918	10.1%	2.5%	68.1%	19.2%
Oct to Nov, 2009	10,804,514	10.7%	1.8%	68.6%	18.9%
Nov to Dec, 2009	10,928,733	7.9%	1.6%	70.6%	19.9%
Dec, '09 to Jan, '10	10,821,742	8.3%	1.5%	69.8%	20.4%
Jan to Feb, 2010	11,904,522	8.9%	1.7%	71.2%	18.2%
Feb to Mar, 2010	12,201,584	11.4%	2.3%	67.2%	19.1%
Mar to Apr, 2010	12,546,709	14.1%	2.9%	63.7%	19.4%
Apr to May, 2010	11,807,334	11.2%	2.9%	66.4%	19.5%
May to June, 2010	11,013,249	-	-	-	-

Note: \* Exemption-eligible jobs include all private, non-self-employed jobs; \*\* Other employment includes government, self-employment, and employment without pay.

**Table 3: Estimated Number of New Hires  
for which Employer is Eligible for HIRE Act Tax Exemption**

Transition months	New Exemption-Eligible Hires	Average Weekly Earnings*
Feb-10 to Mar-10	1,385,937	\$476
Mar-10 to Apr-10	1,765,519	\$536
Apr-10 to May-10	1,319,394	\$524
<b>Total</b>	<b>4,470,850</b>	<b>\$513</b>

Note: \* Average weekly earnings are estimated from the out-going rotation group subsample of the CPS. Earnings are reported on the new job in the second month of the linked sample (i.e., pertaining to March through May).

**Table 4: Demographic Characteristics of New Hires and Unemployed in 2010, by HIRE Act Tax Exemption Eligibility**

	Eligible for HIRE Act Tax Relief				All Unemployed
	Feb to Mar	Mar to Apr	Apr to May	Total Feb to April	Feb to Apr
<u>Gender</u>					
Men	67.9%	68.8%	63.7%	67.0%	61.1%
Women	32.1%	31.2%	36.3%	33.0%	38.9%
<u>Age</u>					
less than 25	24.8%	19.9%	26.9%	23.5%	24.7%
25 to 54	65.7%	70.8%	63.4%	67.1%	61.2%
55+	9.5%	9.3%	9.7%	9.5%	14.1%
<u>Race</u>					
White	77.8%	80.7%	77.1%	78.7%	74.8%
Black	17.0%	13.5%	18.1%	15.9%	18.4%
Other	.2%	5.8%	4.8%	5.3%	6.8%
<u>Hispanic origin</u>					
	23.1%	21.8%	21.2%	22.0%	18.5%
<u>Education</u>					
Less than H.S.	24.2%	19.9%	17.1%	20.4%	20.6%
H.S. diploma	40.3%	39.4%	43.7%	40.9%	38.2%
Some college	21.6%	27.2%	27.0%	25.4%	26.2%
Bachelor's degree	11.3%	10.9%	8.5%	10.3%	11.4%
Beyond college	2.5%	2.7%	3.8%	2.9%	3.6%

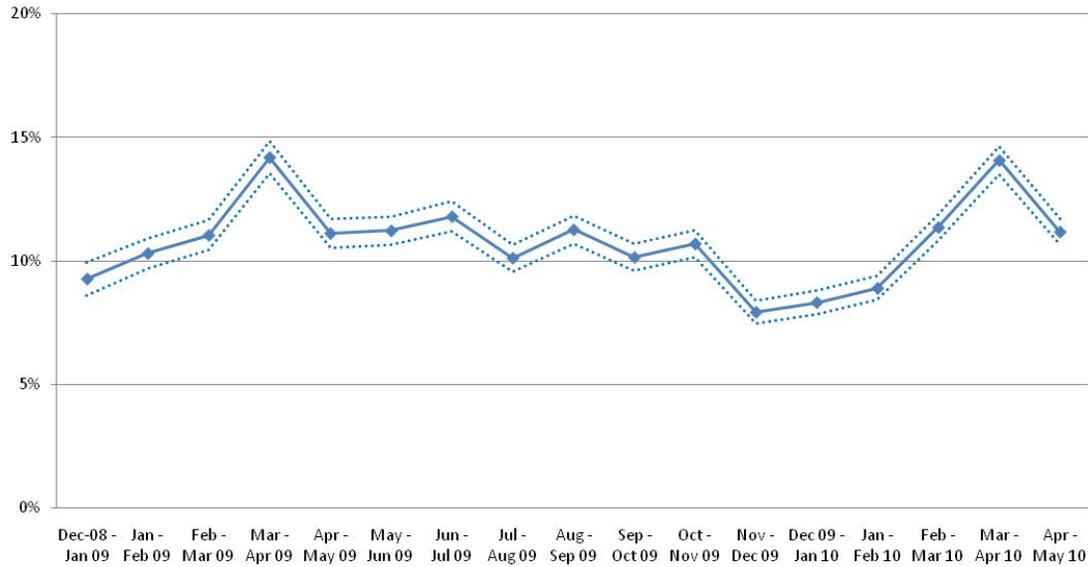
Note: Each panel presents the share of the sample in that row category. For example, 67.9 percent of the eligible hires from February to March were male and 32.1 percent were female, while 61.1 percent of all unemployed workers from February to April were male and 38.9 percent were female.

**Table 5: Industry of HIRE Act Exemption-Eligible New Hires and Unemployed,  
Total February to April, 2010**

	HIRE Act Exemption-Eligible New Hires		Former Industry of All Unemployed
	Former Industry	New Industry	
Construction	22.6%	19.6%	17.1%
Manufacturing	11.5%	9.5%	13.1%
Retail trade	11.6%	13.4%	12.3%
Transportation and utilities	5.1%	4.7%	4.3%
Financial activities	3.7%	3.9%	5.3%
Professional and business services	12.6%	13.9%	13.2%
Educational and health services	8.5%	8.6%	10.3%
Leisure and hospitality	11.2%	12.7%	11.7%
All other industries	13.1%	13.6%	12.8%

Note: All other industries include: Agriculture, forestry, fishing, and hunting, mining, information, wholesale trade and other services.

**Figure 1: Monthly Transition Rate to Private Exemption-Eligible Employment,  
For Workers Unemployed  $\geq$  8 weeks**



Note: This chart presents data reported in Table 2. The solid line presents the estimated transition rates into private exemption-eligible employment for each month. The dashed lines present the estimated transition rate plus and minus one standard error. Standard errors are computed using the sample weights provided by the CPS.