THE IMPACT OF IMMIGRATION ON THE NATIVE-BORN UNEMPLOYED

FERNANDO RIOS-AVILA and GUSTAVO CANAVIRE-BACARREZA

Introduction
The share of foreign-born persons in the United States has increased rapidly over the last few decades, rising from 7.9 percent of the population in 1990 to almost 13.3 percent in 2014, representing about 41.3 million individuals—roughly 11.3 million of whom are estimated to be unauthorized immigrants (Passel and Cohn 2015). Most research on the economic impact of these trends focuses on the effects that immigration, particularly unauthorized/illegal immigration, has had on the job market prospects of native-born citizens, with the bulk of this research suggesting that immigration has had a minor but negative impact on wages and employment opportunities. However, comparatively little is known about the effects of immigration on the labor market opportunities of the native-born unemployed in particular.

Unemployed workers are the group most likely to be affected by the presence of immigrants in their local labor markets, as they are actively competing for jobs. Their opportunities to find a job, as well as their decisions to either continue searching for jobs or exit the labor force, are likely to be influenced by any effects—actual or expected—that immigration has on wages and the availability of jobs.

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According to our estimates, immigration in the United States has a small but statistically significant impact on the labor market behavior of native-born unemployed workers. We find that their chances of finding a job—are not affected by the share of immigrants in their labor markets. The native-born unemployed are less likely to remain unemployed when living in areas with a higher percentage of immigrants compared to their counterparts in low-immigration areas. However, this shorter duration of unemployment appears to be a function of the local native-born unemployed being more likely to leave the labor force when living in areas with a higher percentage of immigrants. We also find that immigration does not affect native-born workers’ migration rates.

Three additional results shed light on what might be contributing to this higher rate of labor market exit, with each pointing to the potential role of expectations in creating a discouraged worker effect among the native-born unemployed in high-immigration states. Although the share of immigrants in a state’s labor market neither increases nor decreases the probability the unemployed will find a job, expectations of an adverse job market impact may be influencing their decision to either continue searching for a job or leave the labor market. First, we find that the youngest and least educated unemployed workers are the most likely to leave the labor force. Second, the observed increase in labor market exit seems to be driven by the presence of likely undocumented immigrants, with no significant effects associated with the concentration of other types of immigrants. Third, we find that the transition behaviors of native-born unemployed individuals of Hispanic heritage or who are children of immigrants seem not to be affected by immigration rates.

**Methodology**

Based on observable differences in immigration rates across US states and through time, we analyze how immigration influences changes in the employment status of the local, native-born unemployed population. We do so by measuring the effect of immigration rates (understood as the percentage of immigrants in a given population) on labor market transitions: specifically, the probability that unemployed workers will, from month to month, (1) find a job, (2) remain unemployed, (3) leave the labor force, or (4) migrate.

Our study uses data from the monthly Current Population Survey (CPS) from 2001 to 2013, obtained from the Integrated Public Use Microdata Series. We match data for individuals who were interviewed for two consecutive months and identify workers’ transitions out of unemployment. We concentrate on native-born workers, or those born to American parents, who are 15 years of age or older and declared to be currently unemployed but having actively sought a job in the previous four weeks.

In order to account for the effects of demographic variation—that is, the differences in labor market transition rates exhibited by various demographic subgroups—we control for sex, age, education, and race. We also control for the variation of household characteristics that might affect transition behaviors, including civil status (married or separated), household size, and the number of children in the household under 13 years of age. Finally, we control for local, state-level unemployment rates and generosity of unemployment insurance benefits.

**Immigration and the Unemployed: Baseline Results**

On average, living in a state with a high concentration of immigrants reduces the probability that a worker will remain unemployed for an additional month. However, that shorter unemployment duration is a function of an increase in the probability that a native-born worker will leave the labor force. Specifically, our baseline estimation suggests that if the share of immigrants in a state increases by one percentage point—say, from an average of 7.9 percent to 8.9 percent—then the probability of an average worker remaining unemployed declines by 0.34 percentage point, while his or her probability of leaving the labor force increases by 0.30 percentage point. While the magnitude of the result is relatively small, it has important implications in terms of the impact of immigration on labor market dynamics.

The estimates contain no evidence for the view that living in an area with a higher concentration of immigrants affects native-born unemployed workers’ chances of finding a job. This, however, does not imply that immigration has no effect on the availability of jobs or on job displacement of the native born, as the possibility remains that higher rates of immigration affect the job stability of currently employed native-born workers and the job opportunities of those who are currently out of the labor force but trying to return to the market. The estimates
also suggest that living in a state with a higher concentration of immigrants does not change the probability that an unemployed native-born worker will migrate.\footnote{7}

Based on the literature on perceptions of immigration and immigration's effect on the labor market (Hainmueller and Hopkins 2014; Pecoraro and Ruedin 2015; Longhi, Nijkamp, and Poot 2005), it is possible that the connection between higher immigration rates and higher labor force exit rates is influenced by native-born workers' expectations of adverse impacts—whether justified or not. On the one hand, if we start with the assumption that immigration has a large and negative effect on wages, as suggested by Borjas (2003), native-born unemployed workers could consider this expected decline in potential earnings and decide to leave the labor force if the costs of continuing to look for a job are regarded as exceeding the benefits of continuing to search for a potentially low-paid job.

On the other hand, even if wages are not significantly eroded by immigration, as some of the literature suggests, unemployed workers' behavior might still be affected in the same way if they believe immigration shrinks wages and the availability of jobs. In other words, as the proportion of immigrants increases in the local labor market, the native-born unemployed could expect wages and available jobs to decline and accordingly decide to leave the labor force.

The Heterogeneity of Immigration's Effects

Most of the literature on the economic impact of immigration suggests that it depends on the degree of substitutability or complementarity between citizen and immigrant workers (Peri 2007; Ottaviano and Peri 2012; Borjas, Grogger, and Hanson 2012). This implies that there could be some heterogeneity in the effects of immigration, as some native-born workers could be more likely to be affected given the presence of immigrants who are similar to them in terms of skill characteristics. We explore this possibility by modifying the baseline to measure interactions between the immigration rate and demographic characteristics such as sex, age, and educational attainment. These estimates are presented in Table 1.

The first aspect to observe is that there are no heterogeneous effects of immigration across gender. Similar to the baseline results, we observe no evidence that higher immigration rates affect the probability of finding a job or of migrating. We also see that the estimates show small differences between men and women regarding the probability of leaving the labor force, with a somewhat smaller probability that women remain unemployed compared to men.

The second aspect of interest is to look across different age groups. Since immigrants, in particular unauthorized/undocumented immigrants, tend to be younger (Passel and Cohn 2015), it is possible that younger native-born workers are the most affected by the presence of immigrants in their labor markets. Looking at the estimates, and consistent with the literature,\footnote{8} we observe that younger workers are affected the most by the presence of immigrants, as they show the largest decrease in the probability of remaining unemployed and the largest

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|c|}
\hline
 & E & U & NLF & M \\
\hline
Baseline & 0.0003 & -0.0034** & 0.0030*** & 0.0002 \\
 & (0.0011) & (0.0014) & (0.0011) & (0.0007) \\
\hline
Sex & & & & \\
IR x Male & -0.0001 & -0.0029** & 0.0029** & 0.0001 \\
 & (0.0011) & (0.0014) & (0.0010) & (0.0007) \\
IR x Female & 0.0006 & -0.0040*** & 0.0031** & 0.0003 \\
 & (0.0010) & (0.0014) & (0.0013) & (0.0007) \\
\hline
Age & & & & \\
IR x 15–24 & 0.0002 & -0.0038*** & 0.0037*** & -0.0001 \\
 & (0.0011) & (0.0014) & (0.0012) & (0.0007) \\
IR x 25–44 & 0.0006 & -0.0031** & 0.0023** & 0.0003 \\
 & (0.0011) & (0.0014) & (0.0011) & (0.0007) \\
IR x 45–64 & -0.0002 & -0.0029** & 0.0018 & 0.0013 \\
 & (0.0011) & (0.0015) & (0.0012) & (0.0008) \\
IR x 65+ & -0.0022* & 0.0001 & 0.0007 & 0.0013 \\
 & (0.0013) & (0.0018) & (0.0013) & (0.0012) \\
\hline
Education & & & & \\
IR x Less than High School & 0.0001 & -0.0034** & 0.0031*** & 0.0001 \\
 & (0.0011) & (0.0014) & (0.0012) & (0.0007) \\
IR x High School & 0.0003 & -0.0039*** & 0.0035*** & 0.0001 \\
 & (0.0011) & (0.0014) & (0.0012) & (0.0007) \\
IR x Some College & 0.0001 & -0.0031** & 0.0025** & 0.0006 \\
 & (0.0011) & (0.0015) & (0.0012) & (0.0007) \\
IR x College Degree / Postgraduate Work or Degree & 0.0009 & -0.0026* & 0.0016 & 0.0000 \\
 & (0.0011) & (0.0015) & (0.0012) & (0.0007) \\
\hline
Number of Observations & 430,932 & 430,932 & 430,932 & 430,932 \\
\hline
\end{tabular}
\caption{Marginal Effects of Immigration: Heterogeneity}
\end{table}

Notes: E – Employment, U – Unemployment, NLF – Not in the Labor Force, M – Migrated, IR – Immigration Rate. Share of immigrants as a percentage of the 15+ population. The coefficients (x 100) reflect the change in the probability of transition to any given employment state (E, U, NLF, M) given a change of 1pp in the immigration rate. Standard errors in parentheses.

* p<0.1 ** p<0.05 *** p<0.01.
increase in the probability of leaving the labor force. Older cohorts show relatively smaller marginal effects with regard to immigration. The closest measure of skill in our data is workers’ education level. In terms of wages, most of the literature has found that immigration has the largest negative impact on low-skill native-born workers (Altonji and Card 1991; Card 2001).\textsuperscript{9} Overall, and consistent with the main results, the estimates suggest that immigration has no impact on the probability of finding a job or migrating, increases the probability of leaving the labor force, and reduces the probability of remaining unemployed for an additional month. The results also suggest that these marginal effects are smaller for workers with higher levels of education. These observed effects with regard to education and age can be explained to the extent that immigrants, particularly those perceived to be unauthorized immigrants, tend to be younger and less educated (Passel and Cohn 2015). In this sense, the estimated effects are explained either because of the additional labor market competition with highly substitutable labor (immigrants), or because younger and less educated native-born workers have the most pessimistic expectations with regard to the impact of immigrants on the labor market.

The Discouraged Worker and Perceptions of Immigration

One of the potential channels through which immigration could be affecting the behavior of the native-born unemployed population is through the role of expectations. If unemployed workers expect wages or the availability of jobs to decline as a result of immigration, they may be more likely to give up looking for work (Ehrenberg and Smith 2015, chapter 7). This could occur regardless of whether wages and employment availability are affected by immigration (Orrenius and Zavodny 2012; Anderson 2010; Kessler 2001; Mayda 2006; Scheve and Slaughter 2001). Indeed, there is some evidence that negative expectations regarding the impact of immigration—in particular unauthorized immigration—might be driving the marginal decline of labor force participation among the native-born unemployed in high-immigration areas.

First, we analyze the effect that immigration rates have on the labor market transition probabilities of unemployed populations less likely to hold negative expectations regarding the impact of immigration. In our data, we identify three different samples that fulfill these criteria: foreign-born citizens, individuals who identify with a Hispanic heritage, and individuals whose parents were immigrants (first-generation citizens). If we assume these groups have a more positive (or less pessimistic) view of immigration, as they were immigrants themselves at some point or have a close relative who is an immigrant, it is possible that they have fewer/lower expectations that the presence of immigrants will affect their wages or employment opportunities (Suro 2005; Rouse, Wilkinson, and Garand 2010). Based on this hypothesis, if the immigration rate affects labor force exit rates in part because of negative expectations about immigration, populations less likely to form such expectations will also be less likely to modify their behavior as a function of immigration rates.

In Table 2, we present estimates of the model using the sample of foreign-born citizens (M1), citizens with a Hispanic heritage (declared to be Hispanic) (M2), and citizens with a foreign-born parent (M3). The results suggest that immigration rates at the state level have no effect on the transition probabilities of these subpopulations. This could mean that these individuals

<table>
<thead>
<tr>
<th>Table 2 Marginal Effects of Immigration: Robustness</th>
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<tr>
<td><strong>Transition to</strong></td>
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<td>------------------</td>
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<tr>
<td><strong>M1: Sample of Foreign-born Citizens</strong></td>
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<tr>
<td>IR x Likely Naturalized Citizens</td>
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<tr>
<td>IR x Likely Authorized Immigrants</td>
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<tr>
<td>Unauthorized Immigrants</td>
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Notes: E—Employment, U—Unemployment, NLF—Not in the Labor Force, M—Migrated, IR—Immigration Rate. Share of immigrants as a percentage of the 15+ population. The coefficients (x 100) reflect the change in the probability of transition to any given employment state (E, U, NLF, M) given a change of 1pp in the immigration rate. Standard errors in parentheses.

* p < 0.05 † Passel and Cohn 2015

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are not affected by immigration because their expectations with regard to their labor market opportunities do not change compared to other citizens.

Another aspect of immigration and perceptions/expectations among unemployed native-born workers can be linked to the nature of immigration itself. While there is a relatively general consensus that illegal immigration has a detrimental impact on the economy, in particular for low-skill workers, there is less research regarding the impact of authorized immigrants. If legal immigration has a smaller (expected or real) negative effect on the labor market compared to unauthorized immigration, then we would expect measures capturing legal immigration to have no effect on the transition probabilities. Even if native-born citizens are not able to distinguish between the types of immigrants (authorized/unauthorized) living close to their labor market, they might still adjust their behavior based on the labor market signals; that is, in terms of the effect on wages and employment.

To test this hypothesis, we create three additional measures of immigration, based on immigrants’ potential legal status in the country. First, we create a share of naturalized immigrants, which is measured as the share of all foreign-born individuals 15 years of age and above who self-identify as naturalized citizens. Second, based on the work of Passel and Cohn (2015), which provides a description of unauthorized immigrants in the United States, we identify the share of likely unauthorized individuals as the proportion of foreign-born noncitizens, between 20 and 45 years of age, with at most a high school education and of Hispanic origin. Last, we create an immigration rate of likely authorized immigrants, which is defined as the difference between the overall immigration rate (which excludes naturalized citizens) and the share of likely unauthorized immigrants.

If the native-born unemployed perceive naturalized citizens and likely authorized immigrants to be less of a threat to their job market prospects in comparison with unauthorized immigrants, we would expect the transition rates to be uncorrelated with these measures of immigration. We should only see the measure of unauthorized immigration affect the transition probabilities. In Table 2, under the designation M4, we present the marginal effects for all three immigration rates. We find that neither the share of naturalized immigrants nor the share of likely authorized immigrants has any effect on the transition probabilities, and only unauthorized immigration is significantly associated with lower probabilities of remaining unemployed and higher probabilities of leaving the labor force.

**Conclusion**

Our evidence suggests that immigration has no effect on the availability of jobs for unemployed citizens and no observable effects on the probability of out-migration. However, while the marginal effects are small, we do find that citizens living in states with higher shares of immigrants are more likely to leave the labor force. We suggest that the main driving force behind this effect is the expectation that immigration lowers wages and reduces the number of jobs available. This creates a discouraged worker effect, pushing people who would otherwise have continued looking for work out of the labor force.

In support of our hypothesis, we find three additional pieces of evidence. First, we find that young and low-educated unemployed citizens, those most likely to face competition due to immigration, are also the most affected by the presence of immigrants in their labor market. Second, individuals who have some type of connection to immigrants—first-generation citizens, or individuals with Hispanic heritage—do not seem to be affected by the presence of immigration. And third, only illegal immigration is found to be related to the observed differences in the transition rates out of unemployment and out of the labor force.

**Notes**

1. The large body of research finds that immigration has a negative and small—albeit statistically significant and consistent—impact on wages (Longhi, Nijkamp, and Poot 2005; Kerr and Kerr 2011), with some studies showing larger negative effects (Borjas 2003; Altonji and Card 1991). Regarding job displacement, most of the evidence suggests immigration has negative but mostly minor effects on employment (Longhi, Nijkamp, and Poot 2008). Most of the evidence indicates that unemployment rates do not seem to be affected by immigration in the aggregate, even among young and minority workers (Lucchino, Rosazza-Bondibene, and Portes 2012; Islam 2007; Shan 1999; Winter-Ebmer and Zweimüller 2000). Nevertheless, some of the literature (Frey 1996; Card 2001; Borjas 2003, 2006; Borjas, Grogger, and Hanson 2012) states that immigration
significantly reduces employment and increases native-born workers’ out-migration.

2. For a more detailed presentation of the data and methodology, see Rios-Avila and Canavire-Bacarreza (2016).

3. Measured as the share of people living in a given state who are 15 years of age or older, were born in a foreign country, and declare they are not naturalized citizens. Given the large volatility of the measure, especially in states with low levels of immigration, we adjust the series using a 12-month window of data around the month in question: for any given month, the share of immigrants in a state is calculated as the average of this share across the five months before and the five months after the month in question, as well as the month in question.

4. One feature of the CPS data is its rotating panel design. Each household in the data is interviewed for four consecutive months, is left out for eight, and is interviewed again for an additional four months. Given this rotating panel design, for any given month approximately 75 percent of the households are interviewed again in the following month. Thanks to this feature, individuals can be followed to analyze their short-term transition rates out of unemployment. For the purposes of this study, we follow the methodology described in Drew, Flood, and Warren (2014) and Madrian and Lefgren (2000) in order to obtain month-to-month matched data.

5. See Rios-Avila and Canavire-Bacarreza (2016) for a full description of the methodology.

6. We also include a full set of state, year, and month dummies as controls. See Rios-Avila and Canavire-Bacarreza (2016) for more detail.

7. This does not necessarily contradict the findings in Borjas (2006) and Frey (1996), because immigration may be increasing out-migration for the native-born who are not in the labor force.

8. The work of Smith (2012) and Sum, Harrington, and Khatiwada (2006) suggests that young workers have been the most affected by the presence of immigration in their local markets.

9. However, there is also evidence suggesting that high-skill immigration can reduce the wages of highly skilled workers (Borjas 2006; Borjas, Grogger, and Hanson 2012), while others show that immigration has a rather positive impact on native-born labor outcomes (Ottaviano and Peri 2005).

References


