



## **Tied to the Business Cycle: How Immigrants Fare in Good and Bad Economic Times**

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## Executive Summary

Immigrants have figured prominently in US economic growth for decades, but the current recession has hit them hard. Between the early 1990s and 2007, the United States experienced a long period of sustained economic growth interrupted only by the relatively mild 2001 recession. During that period, immigrants surpassed natives in several key labor market outcomes. From 1994 to 2007, the immigrant employment rate rose above that of natives, peaking at about 66 percent in 2007 compared to about 63 percent for natives. Also, the immigrant unemployment rate fell below that of natives, dropping to 3.4 percent in 2006 compared to 4.5 percent for natives. These gains by immigrants are even more notable because the foreign-born population swelled during this period.

Although immigrants made large inroads in the labor market, the immigrant-native earnings gap remained largely unchanged. Immigrant earnings increased, particularly during the 1990s, but the growth largely matched native earnings gains. The immigrant poverty rate plummeted during the 1990s and then remained fairly stable until the onset of the recent recession in late 2007.

Immigrant economic outcomes began deteriorating before the recession was officially underway, largely as a result of the housing bust. As house prices began to decline in spring 2006, residential construction employment slumped and immigrant employment rates fell. The immigrant unemployment rate began rising toward the end of 2006. Since then, immigrants have seen larger decreases in employment and increases in unemployment than have natives.

The pattern these changes suggest is borne out by a statistical analysis of employment and unemployment over the past 15 years. Despite a long-run trend of rising employment rates and falling unemployment rates, immigrants' economic outcomes in the short run are more strongly tied to the business cycle than those of natives.

The natural follow-up question is why immigrant labor market outcomes are more cyclical. Since immigrants differ from natives in many ways, a number of explanations are possible:

- Immigrants tend to have less education and are more likely to belong to a minority racial or ethnic group. Immigrants' economic outcomes have deteriorated in large part because they are overrepresented in education groups that have experienced the greatest job losses. Immigrants who lack a high school diploma, regardless of their origin, have the most cyclical economic outcomes, matched only by immigrants from Latin America.
- Immigrants differ from natives in their industry and occupation. The foreign born are more likely to work in cyclical sectors and in occupations that suffer the largest job losses during downturns. However, they are also more mobile across areas and types of jobs, which can help them during recessions.
- Immigration status also plays a role. About 12 million immigrants lack legal status, according to estimates from the Pew Hispanic Center.<sup>1</sup> Illegal immigration is sensitive to labor market demand, making the size of the immigrant population cyclical.

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<sup>1</sup> Jeffery Passel and D'Vera Cohn, *A Portrait of Unauthorized Immigrants in the United States* (Washington, DC: Pew Hispanic Center, April 2009), <http://pewhispanic.org/files/reports/107.pdf>.

- College-educated immigrants tend to have more cyclical economic outcomes than college-educated natives. This raises the question whether employment-based immigration policies (which have led to an increased number of temporary and permanent employment-based immigrants) play a role in creating a labor pool that is particularly sensitive to the business cycle.

How can policymakers assist immigrants during a downturn? Many immigrant households are ineligible for or are reluctant to apply for government transfer programs intended to help families during recessions, such as cash unemployment benefits or food stamps. Policies other than traditional government transfer programs therefore are more likely to be able to help immigrant families. These include modifying and expanding the Earned Income Tax Credit (EITC), targeting the children of immigrants, and providing more federal resources to communities with large numbers of immigrants. In addition, the immigration admissions system could be reformed to make inflows more responsive to the business cycle, which would reduce immigration when jobs are scarce.

## I. Introduction

The United States is beginning to emerge from the deepest downturn the country has experienced since the Great Depression. Over 7.2 million jobs have been lost since the “Great Recession” began in December 2007.<sup>2</sup> All demographic groups have experienced job losses, but some groups have been more adversely affected than others. Repeating the pattern of most previous downturns, the recession’s impact has been worst for low-education and minority workers.

One group that has been particularly hard hit is immigrants, a group that comprises 13 percent of the US population and an even larger share — over 15 percent — of the labor force.<sup>3</sup> Immigrants are overrepresented in the labor force mainly because they are more likely to be of working age and less likely to be enrolled in school than the general population. Among immigrant-headed households, real median household income in 2008 was 5.3 percent lower than in 2007, and the poverty rate had risen to 17.8 percent from 16.5 percent.<sup>4</sup> From around the time the recession began to the end of the first half of 2009, the unemployment rate for immigrants rose from a low of 3.4 percent to a high of 9.2 percent, and their employment rate dropped by 4.6 percentage points. In contrast, natives’ unemployment rate increased from a low of 4.1 percent to a high of 8.3 percent, and their employment rate fell by 3.3 percentage points.<sup>5</sup> Employed immigrants also worked fewer hours per week after the recession began.

Low-skilled workers, many of whom are foreign born, tend to be most vulnerable to economic downturns for several reasons. Immigrants make up almost two-fifths of workers who do not have a high school diploma or equivalent and three-quarters of workers who have completed at most eighth grade.<sup>6</sup> When the economy slows, employers look to shed their least productive employees first. Employers tend to invest less in training low-skilled workers and therefore have less incentive to try to keep them when doing layoffs. Less-skilled workers may also be displaced by high-skilled workers who move down the skill chain during a recession.<sup>7</sup> Low-skilled immigrants, particularly recent arrivals, face additional difficulties. Over half of all immigrants and three-quarters of those who have not completed high school report that they cannot speak English very well. In addition, immigrants have less social capital, meaning fewer connections and less knowledge about labor markets, than

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<sup>2</sup> See US Department of Labor, Bureau of Labor Statistics, “Employment Situation Summary” (news release, October 2, 2009), <http://www.bls.gov/news.release/empsit.nr0.htm>.

<sup>3</sup> Authors’ calculations from 2007 American Community Survey data and January-June 2009 Current Population Survey outgoing rotation group data, respectively. The American Community Survey data are from IPUMS, <http://www.ipums.umn.edu/>.

<sup>4</sup> See US Census Bureau, “Income, Poverty, and Health Insurance Coverage in the United States: 2008,” [www.census.gov/prod/2009pubs/p60-236.pdf](http://www.census.gov/prod/2009pubs/p60-236.pdf).

<sup>5</sup> Immigrant unemployment bottomed out in the fourth quarter of 2006. Native unemployment bottomed out in the second quarter of 2007. Authors’ calculations from Current Population Survey outgoing rotation group data through June 2009.

<sup>6</sup> Authors’ calculations from January-June 2009 Current Population Survey outgoing rotation group data.

<sup>7</sup> Paul J. Devereux, “Cyclical Quality Adjustment in the Labor Market,” *Southern Economic Journal* 70, no. 3 (2004): 600-615.

low-skilled natives.<sup>8</sup> Such difficulties are compounded by a lack of legal status for some 8 million unauthorized immigrant workers.<sup>9</sup>

While many immigrants' relatively low skill levels make them particularly vulnerable during recessions, other factors may partly offset this effect. Immigrants tend to be more mobile than natives, both geographically and across industries and occupations.<sup>10</sup> If immigrants are quicker to search for and find alternative employment than natives, their unemployment spells may be shorter. Immigrant inflows may slow during recessions, particularly among unauthorized and employment-based legal immigrants, and some immigrants may even return home as their economic prospects worsen during a downturn. Both behaviors reduce the competition for jobs. In addition, if immigrants who lose their jobs tend to leave, the employment rate among remaining immigrants will be higher.

Immigrants' vulnerabilities appear to have outweighed these advantages during the current downturn, which has disproportionately hurt their labor market prospects. Job losses have been larger among immigrants than among natives, and their unemployment rate has risen more.<sup>11</sup> The impact appears to have been exacerbated by immigrants' overrepresentation in certain sectors, such as construction, that have experienced the brunt of the downturn.<sup>12</sup> Among immigrants in the construction sector, the unemployment rate was over 17 percent in the first half of 2009.<sup>13</sup>

Although immigrants have seen a larger overall decline in employment and a correspondingly bigger increase in unemployment than natives during the recession, their lower skill levels can explain much of the situation. In other words, immigrants' labor market outcomes have deteriorated more than natives' outcomes during the recession primarily because immigrants are overrepresented in education groups and sectors that have experienced large job losses. Within education groups, however, immigrants still tend to outperform comparably educated natives. Only college-educated immigrants have consistently lower employment rates and higher unemployment rates than their native counterparts.

How best to assist immigrants during the downturn presents a conundrum for policymakers. Many immigrant households are ineligible for government transfer programs that help families during recessions, such as food stamps and cash welfare. Immigrants may lack legal or permanent resident status or be barred from receiving benefits that require US citizenship. And those who are eligible may be reluctant to apply for benefits for fear of revealing relatives' unauthorized status or of

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<sup>8</sup> Authors' calculations from the 2007 American Community Survey among immigrants age 16 and older. If the sample is restricted to age 25 and older, over 80 percent of immigrants who have not completed high school report that they cannot speak English very well.

<sup>9</sup> See Passel and Cohn, *A Portrait of Unauthorized Immigrants in the United States*.

<sup>10</sup> See George J. Borjas, "Does Immigration Grease the Wheels of the Labor Market?" *Brookings Papers on Economic Activity*, no. 1 (2001): 69-119.

<sup>11</sup> See Steven A. Camarota and Karen Jensenius, *Trends in Immigrant and Native Employment* (Washington, DC: Center for Immigration Studies, 2009), <http://www.cis.org/articles/2009/back509.pdf>; and Rakesh Kochhar, *Latino Workers in the Ongoing Recession: 2007 to 2008* (Washington, DC: Pew Hispanic Center, 2008), <http://pewhispanic.org/files/reports/99.pdf>.

<sup>12</sup> Rakesh Kochhar, *Latino Labor Report, 2008: Construction Reverses Job Growth for Latinos* (Washington, DC: Pew Hispanic Center, 2008), <http://pewhispanic.org/files/reports/99.pdf>.

<sup>13</sup> Authors' calculations from January-June 2009 Current Population Survey outgoing rotation group data. Over 10 percent of immigrants in the labor force reported their industry as construction versus 7 percent of natives. Section III below further discusses the role of the construction sector.

jeopardizing their own or a relative's green card application. This is a reasonable concern. Sponsoring a relative for a green card requires meeting an income threshold, and applying for a green card requires showing one is not likely to become a "public charge," meaning dependent on the government for income.<sup>14</sup> It therefore may be relatively difficult for policymakers to aid impoverished immigrant households through traditional transfer programs.

This report provides an up-to-date analysis of the economic status of immigrants, how they progressed during the 1990s and 2000s, and how they are faring in the ongoing recession. It examines not only employment trends but also earnings and poverty. The report then steps back to take a broader perspective on why immigrants tend to be more vulnerable to the business cycle. It addresses the following questions:

- How do labor market outcomes and poverty rates compare between immigrants and natives over the long run and over the business cycle?
- Why are immigrants more vulnerable to business-cycle downturns than natives?
- What can public policy do to reduce the disparate impact of business-cycle downturns on immigrant households?

A few clarifications should be noted before proceeding. Unless indicated otherwise, this report uses the terms immigrant and foreign born interchangeably to refer to people born outside the United States to parents who are not US citizens. This group includes naturalized US citizens, legal permanent residents, temporary migrants, and unauthorized immigrants. The data analyzed below do not include respondents' legal or visa status. The data may underrepresent some immigrant groups, particularly the unauthorized.<sup>15</sup> Caution needs to be exercised in drawing conclusions about relatively small groups, as changes over time and differences from other groups may not always be statistically significant.<sup>16</sup>

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<sup>14</sup> See US Citizenship and Immigration Services, "Public Charge Fact Sheet," <http://www.uscis.gov/portal/site/uscis/menuitem.5af9bb95919f35e66f614176543f6d1a/?vgnextoid=354fb2a3fffb4210VgnVCM10000082ca60aRCRD&vgnnextchannel=68439c7755cb9010VgnVCM10000045f3d6a1RCRD>.

<sup>15</sup> The US Census Bureau estimates that it undercounts the unauthorized population by 15 percent while the former Immigration and Naturalization Service assumed a 10 percent undercount. See Gordon H. Hanson, "Illegal Migration from Mexico to the United States," *Journal of Economic Literature* 44, no. 4 (2008): 869-924.

<sup>16</sup> We also caution that the comparability of the data over time is affected slightly by periodic revisions in Current Population Survey (CPS) methodology. We focus on rates instead of levels (number of people employed, unemployed, etc.) because CPS is not retrospectively revised to reflect changes in population counts (see <http://www.bls.gov/cps/cps09adj.pdf>). Although it is possible to adjust the data to reflect updated counts by age, sex, and race/ethnicity, we opted not to do so here because the Bureau of Labor Statistics (BLS) does not publish updated counts by nativity status. BLS notes that adjustments for updated population counts have a negligible effect on percentages, such as the unemployment rate.

## II. How Do Labor Market Outcomes and Poverty Rates Compare between Immigrants and Natives over the Business Cycle?

Until recently, there was limited opportunity to study the business-cycle performance of US immigrants. The necessary data — monthly surveys that ask individuals about economic outcomes and foreign birth — only began to become available as of 1994. Economists then had to wait until 2001 to observe a recession, which was relatively mild. With the ongoing, considerably more severe and prolonged downturn, economists now can provide additional insight on how immigrants fare over the business cycle.

This section first examines the long-run trends in immigrant employment and unemployment, earnings, and poverty rates over the last 15 years. It then explores how business cycles have influenced short-run volatility in these same measures. We provide a statistical analysis that separates the changes in native and immigrant employment and unemployment into two components. The first component describes long-run trends over the entire 15-year period. The second describes short-run fluctuations around the long-run trend. These short-run movements are due in part to the business cycle.<sup>17</sup>

The data presented here are quarterly averages and are seasonally adjusted, except for the poverty rate data (which are annual and therefore not seasonally adjusted). Earnings data are adjusted for inflation using the Bureau of Labor Statistics Consumer Price Index for Urban Wage Earners and Clerical Workers. All data are from the Current Population Survey, a monthly survey of about 50,000 households conducted by the US Census Bureau for the Bureau of Labor Statistics.

### A. Employment and Unemployment

#### Employment Rates

The employment rate is the share of employed workers in the noninstitutionalized civilian population age 16 and older. It is a good summary statistic of the extent of economic activity within a given group. Figure 1 shows the employment rates for immigrants and natives from the first quarter of 1994 through the second quarter of 2009, with the shaded portions indicating the two recessions during this period: the high-tech bust in 2001 and the more recent housing bust/financial crisis.<sup>18</sup>

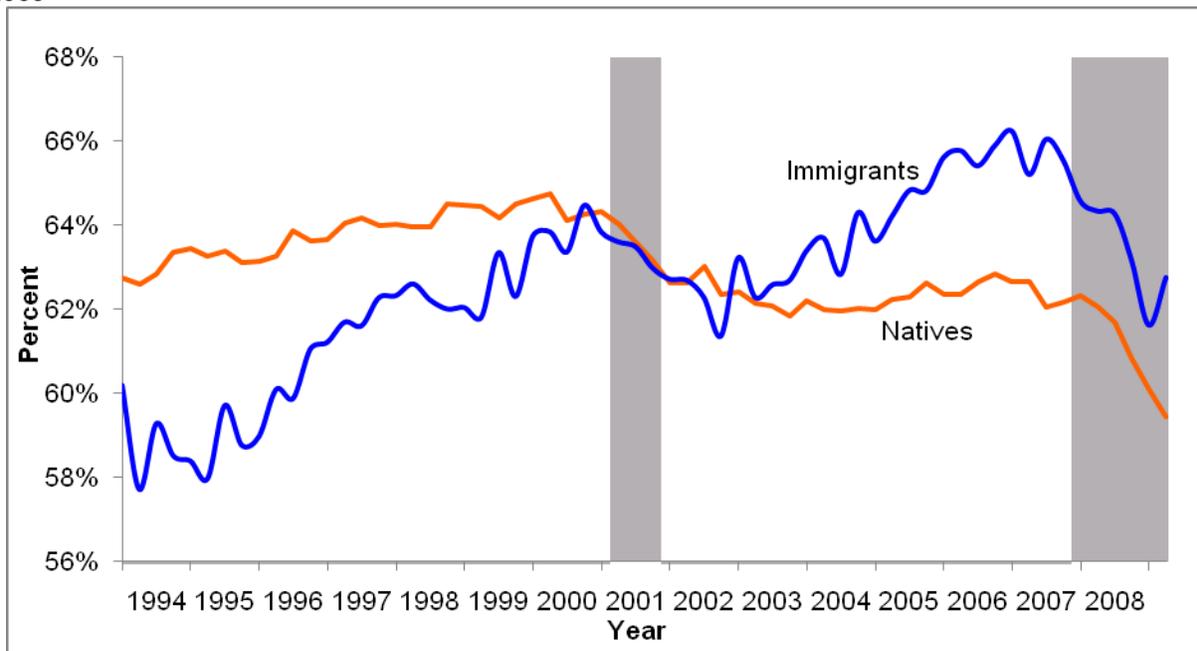
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<sup>17</sup> We use the Hodrick-Prescott (HP) filter to decompose employment and unemployment rates into a trend and a residual component. The HP filter is a data-smoothing technique that is commonly applied to remove short-term fluctuations associated with the business cycle, thereby revealing long-term trends. For an explanation, see Walter Enders, *Applied Econometric Time Series*, 2nd ed. (Hoboken, NJ: John Wiley and Sons, 2004), 223-225.

<sup>18</sup> A recession is often defined in the popular press as two consecutive quarters of negative GDP growth. However, the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) defines a recession more loosely as a "...significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales."

Employment rates are typically procyclical, which means they increase during economic expansions and fall during recessions. This is true of both immigrant and native employment rates, but the cyclicality is considerably more pronounced for immigrants. The 1990s boom propelled immigrant employment to new heights, both by increasing employment among immigrants already here and by attracting more migrants with strong labor force attachment.

**Figure 1. Employment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

Employment rates for both natives and immigrants fell during the 2001 recession, but the immigrant employment rate recovered sooner and began to increase in 2003, surpassing the native employment rate in every subsequent year. By mid-2005, the immigrant employment rate exceeded its previous series high of 64.5 percent, reached in 2000. It went on to reach over 66 percent in early 2007. In contrast, the native employment rate never returned to its pre-2002 rates of 63 to 64 percent. Instead it remained largely flat in the post-2002 economy and then dropped with the onset of the recession in late 2007.

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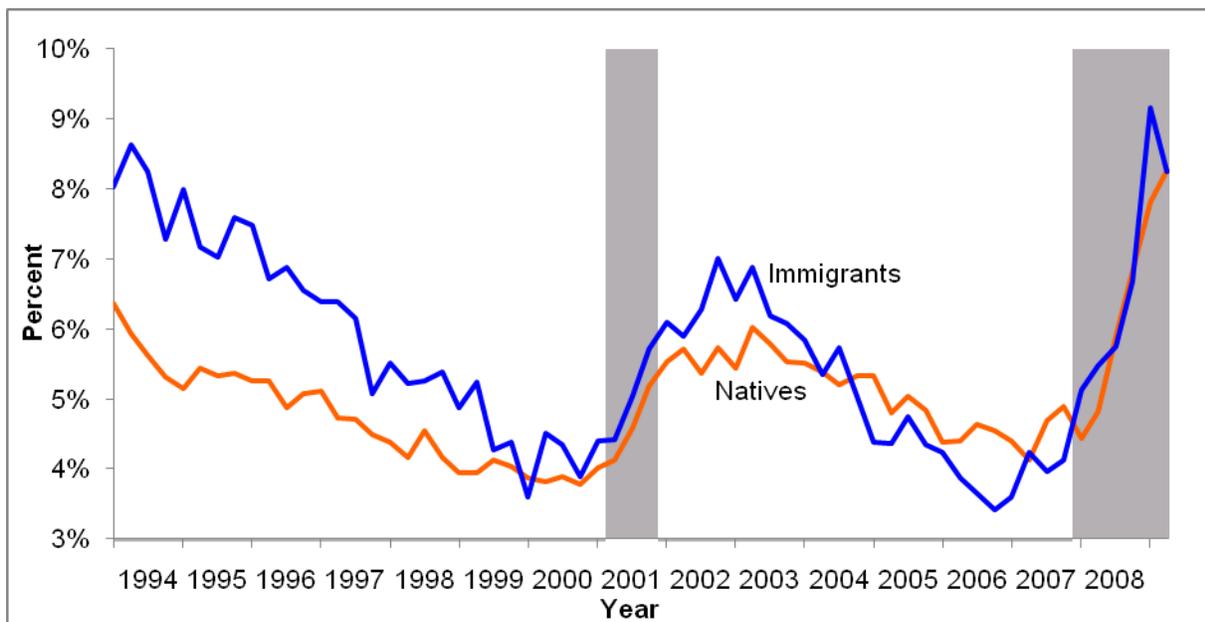
Two economic events date a recession: a peak in activity signals the beginning of the downturn, and a trough in activity marks the end. See NBER, “The NBER’s Recession Dating Procedure,” <http://www.nber.org/cycles/recessions.html>. Because we use quarterly data, the figures here show the 2001 recession — officially from March 2001 to November 2001 — as occurring from the second through the fourth quarter of that year and the ongoing recession as beginning in the first quarter of 2008 (instead of NBER’s start date of December 2007).

## Unemployment Rates

Unemployment rates are, in a sense, a mirror image of employment rates, although the unemployment rate measures the unemployed as a share of the labor force instead of the entire adult population. Given that these two measures are so closely correlated, albeit inversely, it is no surprise to see a clear countercyclical pattern in both native and immigrant unemployment rates: they rise during downturns and fall during expansions.

Figure 2 suggests a long-run decline in the immigrant unemployment rate from 1994 until about 2006, interrupted briefly by the 2001 recession. In 1994, the immigrant unemployment rate was above 8 percent, compared to around 6 percent for natives. Both rates declined during the 1990s, and the gap between them narrowed. After rising in the early 2000s, immigrant unemployment fell to 3.4 percent in late 2006, its lowest point over the 15-year period. The native unemployment rate did not fall as much during the 2000s expansion and actually bottomed out (at 3.8 percent) in the fourth quarter of 2000. Meanwhile, the immigrant unemployment rate fell below the native rate in the fourth quarter of 2004 and stayed there until 2008.

**Figure 2. Unemployment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

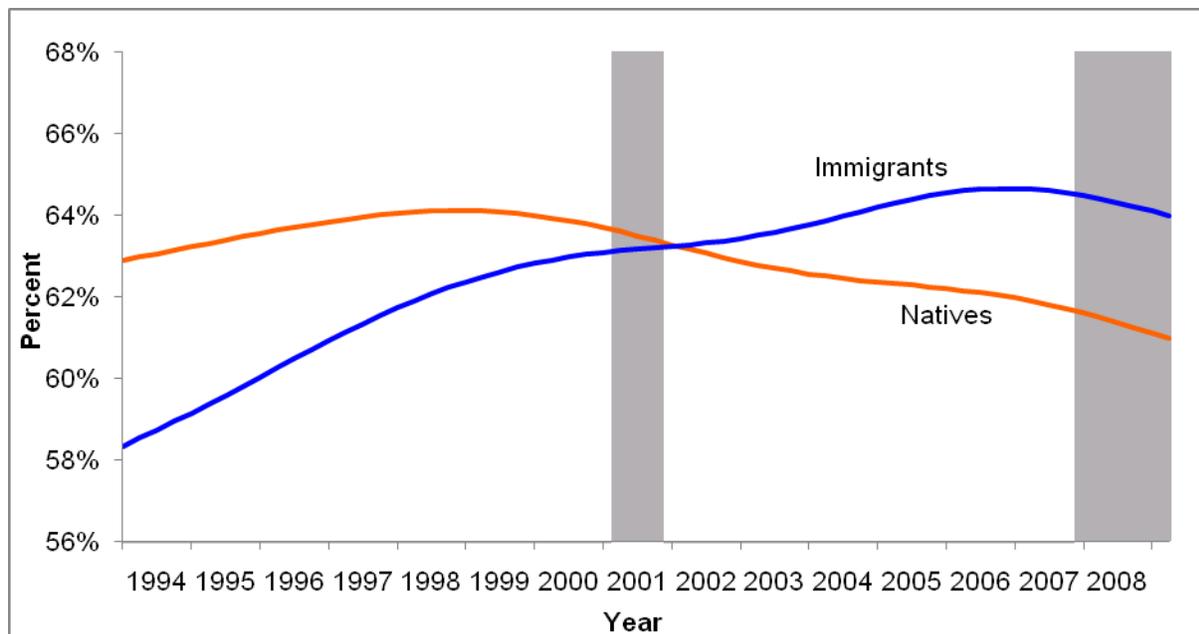
## Long-Run Trends

### Employment

Figure 3 shows the trends in the employment rates after removing short-run fluctuations from the series. The immigrant trend line suggests that the foreign-born population has become more economically active over time, with the trend in the immigrant employment rate rising almost 5 percentage points between 1994 and 2009. In contrast, natives have become less economically active

over time; their employment rate fell two percentage points over the period as a whole and is currently down 3 percentage points from its peak in 1999.

**Figure 3. Long-Run Trends in Employment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



Note: Data are seasonally adjusted. Recessions are shown as shaded areas.

Source: Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

The long-run trend in the immigrant employment rate has been positive for a number of reasons. Immigrant workers, many who arrived in the 1980s and 1990s, are entering their prime working years, when employment and earnings tend to peak. Many native workers, in contrast, are aging out of their prime working years. This means that an increasing number of native workers are leaving the workforce. The results are qualitatively similar, but the native trend is dampened by controlling for changes in the age distribution over time (see Appendix A). The trend for the native employment rate falls more modestly, by just 1 percentage point, while the immigrant employment rate trend still increases by 5 percentage points. Workers aging out of the labor force thus may explain about half of the decline in the long-run trend in the native employment rate between 1994 and 2009.

Immigrant-native differences in women's labor force participation also play a role in the different trends for immigrants and natives. Among native women, the labor force participation rate has been stagnant for the last 15 years. Female labor force participation rates skyrocketed from 43 percent in 1970 to almost 60 percent in the 1990s as some women joined the workforce for the first time while others returned after exiting to raise children. As this phenomenon slowed and then ended, growth in the native labor force and in the employment rate eased.<sup>19</sup>

<sup>19</sup> For discussions of changes in women's labor force participation, see, for example, Francine D. Blau and Lawrence M. Kahn, "Changes in the Labor Supply Behavior of Married Women: 1980-2000," *Journal of Labor Economics* 25, no. 3 (2007): 393-438; and Julie L. Hotchkiss, "Changes in Behavioral and Characteristic

In contrast to native women, immigrant women's labor force participation and employment rates have continued to rise during the last 15 years. Comparing 2009 to 1994, labor force participation and the employment rate were almost 5 percentage points higher among foreign-born women but virtually unchanged for native-born women.<sup>20</sup> Possible reasons for the upward trajectories in immigrant women's labor force participation and employment include assimilation among those already here and, as discussed next, a shift toward employment-based immigrants among new arrivals.<sup>21</sup>

The changing composition of immigrant inflows has also contributed to the long-run upward trend in the immigrant employment rate. First, the 1990 Immigration Act increased the volume of employment-based migration of both temporary immigrants and legal permanent residents. The law raised the number of available employment-based green cards by 160 percent and created the H-1B visa for temporary skilled workers. As the economy surged during the high-tech boom, demand for H-1B visas exploded. The annual cap on the number of such visas was raised twice, peaking at 195,000 before returning to its original level of 65,000 in 2004. Second, illegal immigration also grew during the economic expansions of the 1990s and 2000s. This further boosted the immigrant employment rate because male unauthorized immigrants typically have the highest labor force participation rate of any demographic group, partly because they migrate in order to work and have virtually no access to the government's safety net. They also tend to be of prime working age and are less likely than other groups to be enrolled in school or retired.<sup>22</sup>

## Unemployment

When we remove the short-term fluctuations from the unemployment data, the trends show a striking convergence in the native and immigrant unemployment rates (see Figure 4). The immigrant unemployment rate trend fell more steeply than the native rate during the 1990s, paused, and then resumed its decline in the mid-2000s. In contrast, the native unemployment trend has been flat or on the rise for the past ten years.

Some of the factors that contributed to the trends in the immigrant and native employment rates also contributed to these unemployment rate trends. The increasing proportion of immigrants with strong labor force attachment — namely employment-based immigrants and the unauthorized — and the shift from seasonal and agricultural work to year-round employment among less-educated immigrants likely underlie much of the long-run decline in the immigrant unemployment rate.

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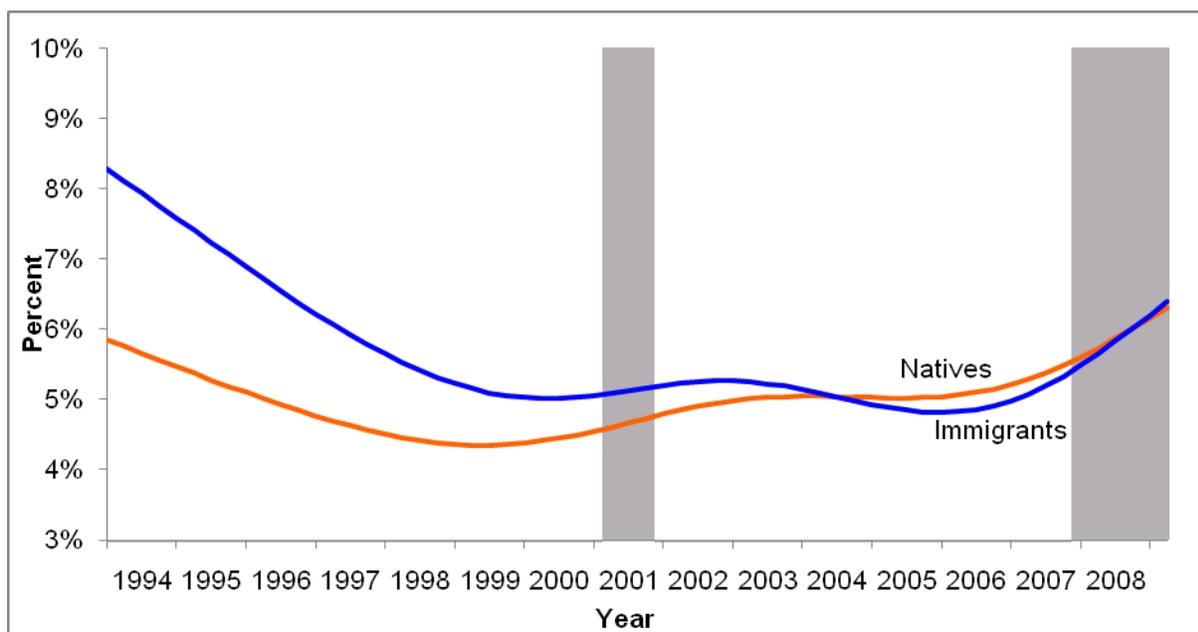
Determination of Female Labor Force Participation, 1975-2005," *Federal Reserve Bank of Atlanta Economic Review* 91, no. 2 (2006): 1-20. The statistics presented here on women's labor force participation are from Francine D. Blau, Marianne A. Ferber, and Anne E. Winkler, *The Economics of Women, Men, and Work*, 5th ed. (Upper Saddle River, NJ: Pearson Prentice Hall, 2006).

<sup>20</sup> Immigrant women's labor force participation rose from 50 percent in 1994 to 55 percent in the first half of 2009, and their employment rate rose from 46 percent to 50 percent. Native women's labor force participation rate was 60 percent and their employment rate 56 percent both years. Authors' calculations from Current Population Survey outgoing rotation group data.

<sup>21</sup> The increased number of employment-based legal permanent residents after the Immigration Act of 1990 likely boosted employment not only among principals but also their accompanying spouses because of assortative mating.

<sup>22</sup> See Jeffrey S. Passel, *Unauthorized Migrants: Numbers and Characteristics* (Washington, DC: Pew Hispanic Center, June 2005), <http://pewhispanic.org/files/reports/46.pdf>.

**Figure 4. Long-Run Trends in Unemployment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

More generally, unemployment-rate trends tend to reflect changes in the age structure and education distribution. As a population enters the prime working ages of 25 to 44 or becomes more educated, its unemployment rate typically trends downward. Although the average age is rising for both the immigrant and native labor forces, immigrants tend to be aging into their prime working years while natives are moving out of those years into retirement or disability. Although the foreign born constitute a growing share of the low-education labor force, the education distribution improved slightly among both immigrants and natives during the 1994-2009 period, albeit a bit more among natives. Broad structural changes, such as the shift away from manufacturing toward services, shaped these long-run unemployment trends as well.

### **Immigrant and Native Sensitivity to the Business Cycle**

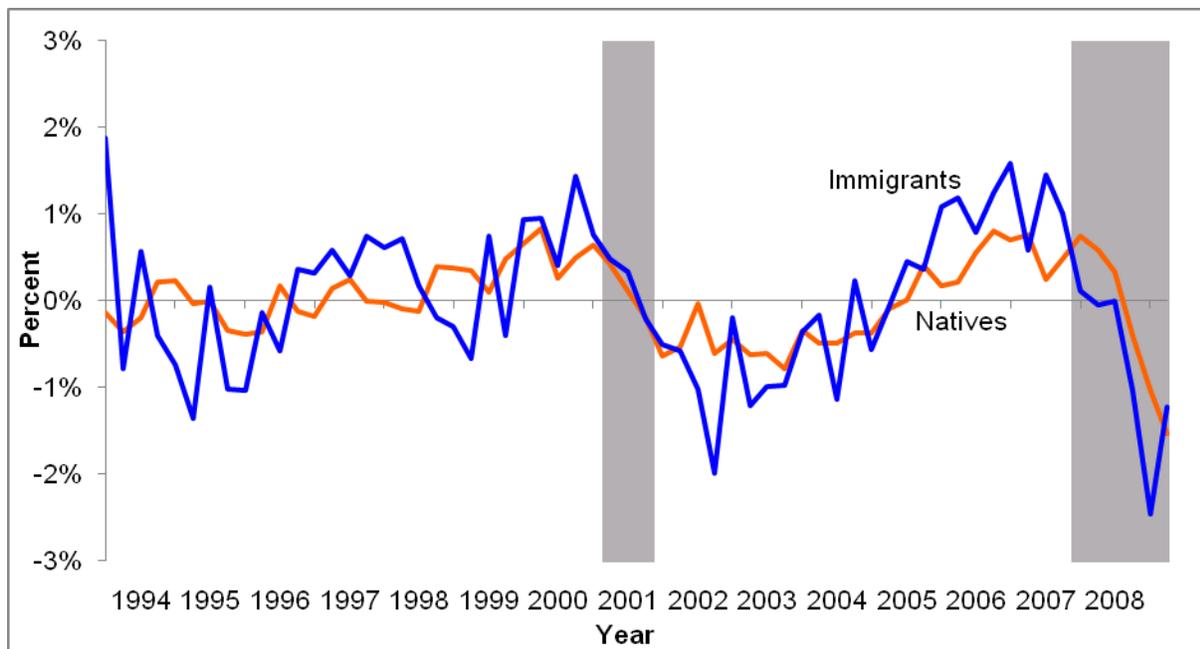
The factors that shape long-run trends in labor market outcomes also tend to affect short-run fluctuations in those outcomes. For example, younger workers tend to be more vulnerable to economic downturns since they have fewer years of work experience. More educated workers tend to be relatively shielded from the business cycle by virtue of their high skill levels. Since immigrants and natives differ systematically in terms of their age and education distributions, it is no surprise that immigrants tend to be more vulnerable to business-cycle fluctuations.

### **Employment**

Figure 5 shows the short-run, or “cyclical,” component of the immigrant and native employment rates. The figure illustrates the fluctuations on either side of the long-term trend discussed above,

represented by the horizontal line at zero. The vertical axis gives the percentage points by which the employment rate in a given quarter was above or below its long-run trend.

**Figure 5. Cyclical Fluctuations in Employment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

The impact of the two recessions is apparent. Both native and immigrant employment rates fell below their long-run trends (below the zero line) during the downturns. Employment rates remained low for several years after the 2001 recession ended, a period frequently characterized as a “jobless recovery.”

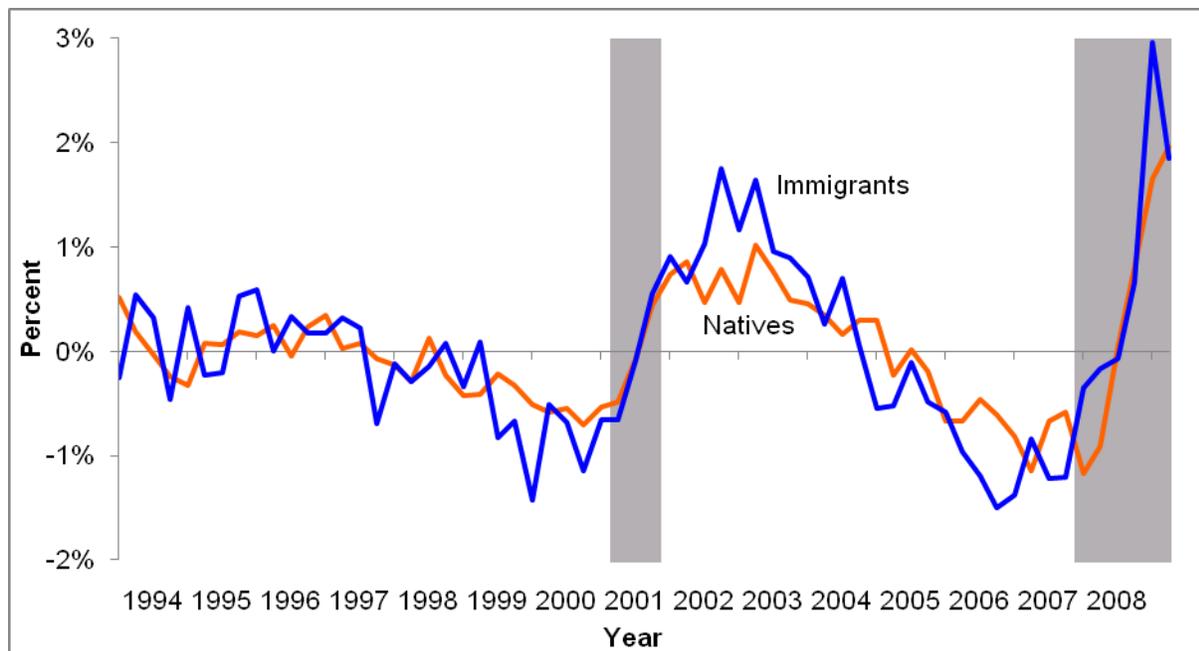
Figure 5 also shows that compared to the native employment rate, the immigrant employment rate experiences greater volatility, as measured by the magnitude of the swings in the series.<sup>23</sup> This greater volatility appears to be caused by greater sensitivity of immigrant employment to the business cycle. The immigrant cycle is above the native cycle during booms (1996 to 1998, at the end of 2000, and during 2005 to 2007) and below that of natives during economic troughs (in 2002 and 2008 to 2009). The immigrant employment rate rises higher in booms and sinks lower in busts.

Like the employment rate, the unemployment rate is more volatile among immigrants than natives. Figure 6 shows the short-run, or cyclical, fluctuations in unemployment for natives and immigrants. Again, the cyclical portion of the immigrant unemployment rate deviates further from its trend (the

<sup>23</sup> The standard deviation of the cyclical component of the immigrant employment rate is 0.9 percentage points, compared with 0.5 percentage points for natives.

zero line) than does the native unemployment rate.<sup>24</sup> These deviations are particularly large before and after recessions, the very high and low points of economic activity. The 2001 recession shows this clearly, with the immigrant unemployment rate first dipping much further below its trend than the native rate and then spiking much higher above its trend soon after the recession's end. Despite registering unemployment well above the long-term trend in the wake of the high-tech bust of 2001, the immigrant unemployment rate recovered quickly. The housing boom provided a notable boost to job opportunities for immigrant workers during the 2000s expansion.

**Figure 6. Cyclical Fluctuations in Unemployment Rates by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

## Cyclical Fluctuations and GDP

If immigrant economic performance is indeed more sensitive to the fortunes of the macroeconomy, then short-run fluctuations in the immigrant employment rate should be more strongly correlated with the growth rate of the gross domestic product (GDP) than the equivalent fluctuations for natives.

Statistical analysis indicates that this is the case. The cyclical fluctuations in the employment rate are considerably more correlated with the rate of GDP growth for immigrants than for natives.<sup>25</sup> This is

<sup>24</sup> The standard deviation of the cyclical component of the unemployment rate for immigrants is about 50 percent higher than that of natives (0.9 percentage points for immigrants versus 0.6 percentage points for natives).

<sup>25</sup> The correlation between the cyclical component of the employment rate and GDP growth is 0.26 for immigrants and 0.14 for natives. A correlation ranges between 0 and 1 (in absolute value terms), with larger values indicating a stronger correlation between two variables.

consistent with the macroeconomy driving the greater volatility of immigrant employment. It also suggests that the business cycle cannot explain changes in natives' employment as well as it can changes in immigrants' employment. Natives may work in sectors that are not affected as much by the business cycle, or their work behavior may be driven by factors other than job availability, such as job location, compensation, or working conditions.

The cyclical fluctuations in the unemployment rates also are correlated with the rate of GDP growth for immigrants and natives.<sup>26</sup> In contrast to employment rates, there is only a small difference between immigrants and natives in unemployment-GDP correlations. Why is this correlation not considerably larger for immigrants than for natives, as is the case for employment? One possible explanation for this pattern is that unemployed immigrants are more likely than natives to move within the United States or even leave the country entirely when jobs are relatively scarce, which dampens the correlation between the immigrant unemployment rate and the business cycle. In addition, the duration of immigrants' unemployment spells may be less variable over the business cycle, both because of greater mobility and because immigrants may search harder for jobs and have lower expectations regarding job amenities, such as a desirable location, pleasant working conditions, and fringe benefits, than natives do.

## **B. Earnings**

Foreign-born workers earn about 20 percent less than US-born workers. In the second quarter of 2009, foreign-born workers earned \$528 per week while median weekly earnings were \$646 per week among natives (see Figure 7). The gap between immigrants' and natives' earnings changed little between 1994 and 2009; median weekly earnings among immigrants started the period at about 80 percent of natives' earnings and ended up at about 82 percent. The two series have performed similarly over time, rising during the 1990s, increasing more slowly between 2001 and 2004, and stagnating since then.

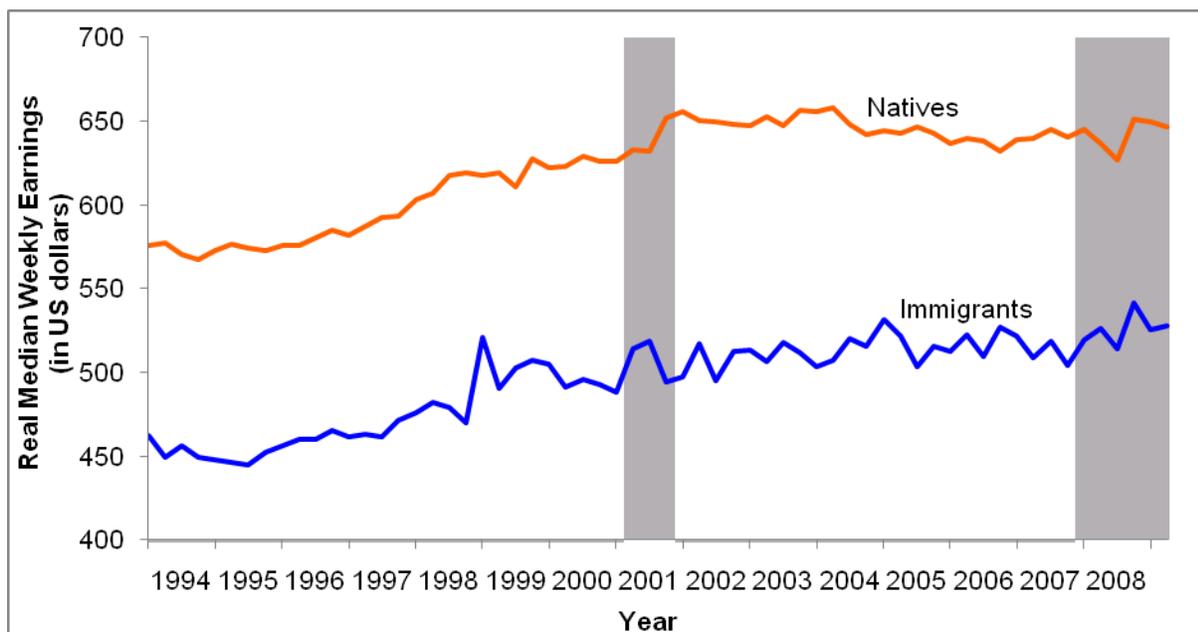
Like employment and unemployment, earnings are also affected by both long-run fundamentals and short-run fluctuations. Immigrant earnings are more variable than native earnings, as is apparent from their more jagged nature in Figure 7, but the variation appears to be unrelated to the business cycle and could partly be due to smaller sample sizes. Recessions typically reduce individual workers' earnings, but median earnings do not necessarily fall during downturns. Earnings data only include the employed (unemployed workers with zero income are not included in earnings measures). Real median earnings tend to be relatively stable over the business cycle because highly paid workers are more likely to remain employed in a recession, counteracting the effect of any decreases in earnings among those who remain employed.<sup>27</sup>

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<sup>26</sup> These correlations are negative since the unemployment rate is countercyclical. The correlations are -0.25 for immigrants and -0.21 for natives.

<sup>27</sup> More educated, more skilled (and highly paid) workers are more likely to remain employed during a downturn, while the least educated, least skilled (and lowest paid) workers are often the first to be laid off. This compositional change masks the procyclical nature of earnings within workers. See Gary Solon, Robert Barsky, and Jonathan A. Parker, "Measuring the Cyclical Nature of Real Wages: How Important Is Composition Bias?" *Quarterly Journal of Economics* 109, no. 1 (1994): 1-25.

**Figure 7. Real Median Weekly Earnings by Nativity, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



Note: Data are seasonally adjusted. Recessions are shown as shaded areas. Earnings are expressed in June 2009 dollars.

Source: Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

A substantial body of research has looked carefully at the immigrant-native earnings gap, controlling for differences in the two populations, such as age, education, English fluency, and years of work experience. These studies have found that immigrants experience faster earnings growth over their lifecycle than natives. Although immigrants initially earn less than natives with similar ages, education levels, and English ability, immigrants' average earnings converge to those of similar natives after 15 to 20 years of US residence. When researchers do not account for differences in education and English fluency, however, less-educated immigrants' average wages typically are predicted to reach parity with those of natives only after generations.<sup>28</sup> One study notes that the immigrant-native earnings gap declined during the 1990s and attributes this convergence partly to

<sup>28</sup> "Less-educated" here means those without a high school diploma. For more on immigrant wages, see, for example, Heather Antecol, Peter Kuhn, and Stephen J. Trejo, "Assimilation via Prices or Quantities? Sources of Immigrant Earnings Growth in Australia, Canada, and the United States," *Journal of Human Resources* 41, no. 4 (2006): 821-840; George J. Borjas, "Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s?" *Journal of Labor Economics* 13, no. 2 (1996): 201-245; and Harriet Orcutt Duleep and Mark C. Regets, "Measuring Immigrant Wage Growth Using Matched CPS Files," *Demography* 34, no. 2 (1997): 239-249. The role of illegal status, which is more prevalent among less-educated immigrants, in the failure of less-educated immigrants to catch up to natives' earnings over their lifetimes is an interesting question and hard to assess absent data on legal status. For a discussion, see Matthew Hall and George Farkas, "Does Human Capital Raise Earnings for Immigrants in the Low-Skill Labor Market?" *Demography* 45, no. 3 (2008): 619-639.

the rise in high-skilled, employment-based immigration, which brought in more high-earning immigrant workers.<sup>29</sup>

## C. Poverty

Given that immigrant workers tend to earn substantially less than natives, are immigrants more likely to be poor? Although the earnings gap certainly suggests this would be the case, other factors may intervene. For example, immigrants live in families that include more workers than natives do.<sup>30</sup> For a family to be designated as poor, the family's total money income has to fall below the poverty threshold for a family of that size and age composition; poverty thresholds vary with family size and members' age but not with region of residence. A family with more workers is thus less likely to be defined as poor, all else equal (all members of a family have the same poverty status).<sup>31</sup> The poverty rate is then defined as the proportion of the population living in a family with income below the poverty threshold.<sup>32</sup> For 2008, the poverty threshold for a family of four (two nonelderly adults, two children under age 18) was \$21,834 while the threshold for a family of five (three adults, two children) was \$26,338.<sup>33</sup>

The poverty rate is indeed much higher among immigrants than natives. In 2008, the last year for which poverty data are currently available, 19.9 percent of people in immigrant-headed households lived in poverty, versus 12.1 percent of people in native-headed households (see Figure 8).<sup>34</sup>

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<sup>29</sup> See George J. Borjas and Rachel M. Friedberg, "Recent Trends in the Earnings of New Immigrants to the United States" (Working Paper No. 15406, National Bureau of Economic Research, 2009), <http://www.nber.org/papers/w15406>.

<sup>30</sup> During the 1994-2009 period, the average number of labor force participants in a family in an immigrant-headed household was 1.7 versus 1.5 for natives. Authors' calculations from March Current Population Survey data from IPUMS.

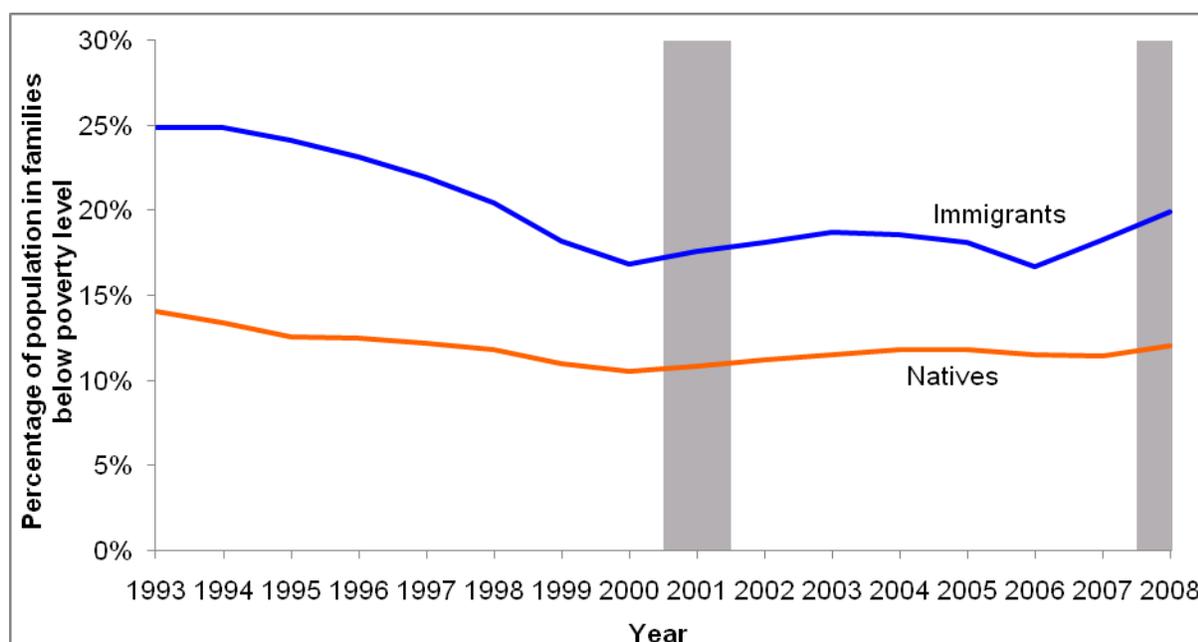
<sup>31</sup> For an explanation of how the Census Bureau measures poverty and the poverty thresholds, see US Census Bureau, "How the Census Bureau Measures Poverty," <http://www.census.gov/hhes/www/poverty/povdef.html>. The March Current Population Survey data used here include family poverty status.

<sup>32</sup> This report assigns all individuals the nativity status of the head of the household when calculating poverty rates by nativity, so US-born children are classified here as foreign born if they live in a household headed by an immigrant. Using individuals' nativity status instead of the head of household's status slightly reduces the immigrant-native gap in the poverty rate (because many children of immigrants are US born, and such children are more likely to live in poverty than either children of natives or adult immigrants). For example, the US Census Bureau reports that 11.9 percent of natives and 15.2 percent of immigrants lived in poverty in 2007. See Carmen DeNavas-Walt, Bernadette D. Proctor, and Jessica C. Smith, *Income, Poverty, and Health Insurance in the Coverage in the United States: 2007* (Washington, DC: US Government Printing Office, 2008), <http://www.census.gov/prod/2008pubs/p60-235.pdf>.

<sup>33</sup> US Census Bureau, "Poverty Thresholds for 2008 by Size of Family and Number of Related Children Under 18 Years," <http://www.census.gov/hhes/www/poverty/threshld/thresh08.html>. A family can include related adults (e.g., an aunt or grandparent), not just married adults. Nonrelatives would be considered part of a household but not part of a family.

<sup>34</sup> For a broader discussion of immigrant-native poverty differences and determinants, see Steven Raphael and Eugene Smolensky, "Immigration and Poverty in the United States" (working paper, Goldman School of Public Policy, University of California, Berkeley, 2008).

**Figure 8. Poverty Rates by Nativity of Household Head, 1993 to 2008**



Note: Recessions are shown as shaded areas.

Source: Authors' calculations from US Census Bureau, March Current Population Survey, 1994 to 2009.

Poverty rates appear to be quite countercyclical, especially among immigrants. The 1990s expansion coincides with a drop in the poverty rate for both immigrants and natives. A number of factors contributed to lower poverty rates in general during this time period, including earnings growth, rising employment rates, and tougher work rules following the 1996 welfare reform.<sup>35</sup> The immigrant poverty rate fell by 8 percentage points between 1993 and 2000, far outstripping the 3.4 percentage point fall in the native poverty rate during that period. Part of the relative improvement among immigrant families likely resulted from changes in the composition of the foreign-born population toward more high-skilled, employment-based immigrants as well as from economic progress among existing immigrant-headed households. Although welfare reform played a role in bringing down poverty rates among immigrants and natives via increased work, legal immigrants faced particularly steep eligibility cuts; they appear to have responded with large increases in work and commensurate declines in poverty.<sup>36</sup>

Poverty rates also fell, although less dramatically, among immigrant-headed households during the 2004 to 2006 housing boom. Interestingly, the poverty rate was nearly unchanged among native-headed households during that period, mirroring the stagnation in real median earnings among native workers shown in Figure 7.

<sup>35</sup> For a broader perspective on changes in poverty, see Hilary W. Hoynes, Marianne E. Page, and Ann Huff Stevens, "Poverty in America: Trends and Explanations," *Journal of Economic Perspectives* 20, no. 1 (2006): 47-68.

<sup>36</sup> See George J. Borjas, "Welfare Reform, Labor Supply, and Health Insurance in the Immigrant Population," *Journal of Health Economics* 22, no. 6 (2003): 933-958; and Michael Fix, ed., *Immigrants and Welfare: The Impact of Welfare Reform on American's Newcomers* (New York: Russell Sage Foundation, 2009).

Poverty rates rise during recessions. In the wake of the 2001 recession, the immigrant poverty rate increased by 1.8 percentage points while the native poverty rate rose by 1.2 percentage points. The sharp spike in the immigrant poverty rate in 2007 and 2008 provides further evidence of the recession's toll on immigrant families. Given the drop in employment rates, poverty likely became even more prevalent among both immigrant and native families in 2009.

### **III. Why Are Immigrants More Vulnerable to Business-Cycle Downturns than Natives, and Which Immigrants Are Most Affected?**

The measures examined above show that immigrants experience more volatility in economic outcomes than do natives. Part of this greater volatility appears to be due to greater sensitivity to business-cycle fluctuations among immigrants, a finding other research has documented.<sup>37</sup> The employment rate in particular indicates that macroeconomic fluctuations affect immigrants more than natives.

Which factors contribute to this greater cyclicity? This report explores the role of four factors: education, race/ethnicity, industry, and occupation. Among the general population, research has established that earnings, employment, and incomes tend to be more volatile and cyclical among nonwhites and the less educated than among the population as a whole.<sup>38</sup> Since immigrants are more likely to have low education levels and to belong to racial/ethnic minorities than natives, it is not a surprise that immigrants tend to have more variable and cyclical economic outcomes. These factors (combined with others, such as region of residence) then may lead to differences in the distribution of immigrants and natives across industries and occupations. Those differences, in turn, reinforce the excess volatility and cyclicity among immigrants.

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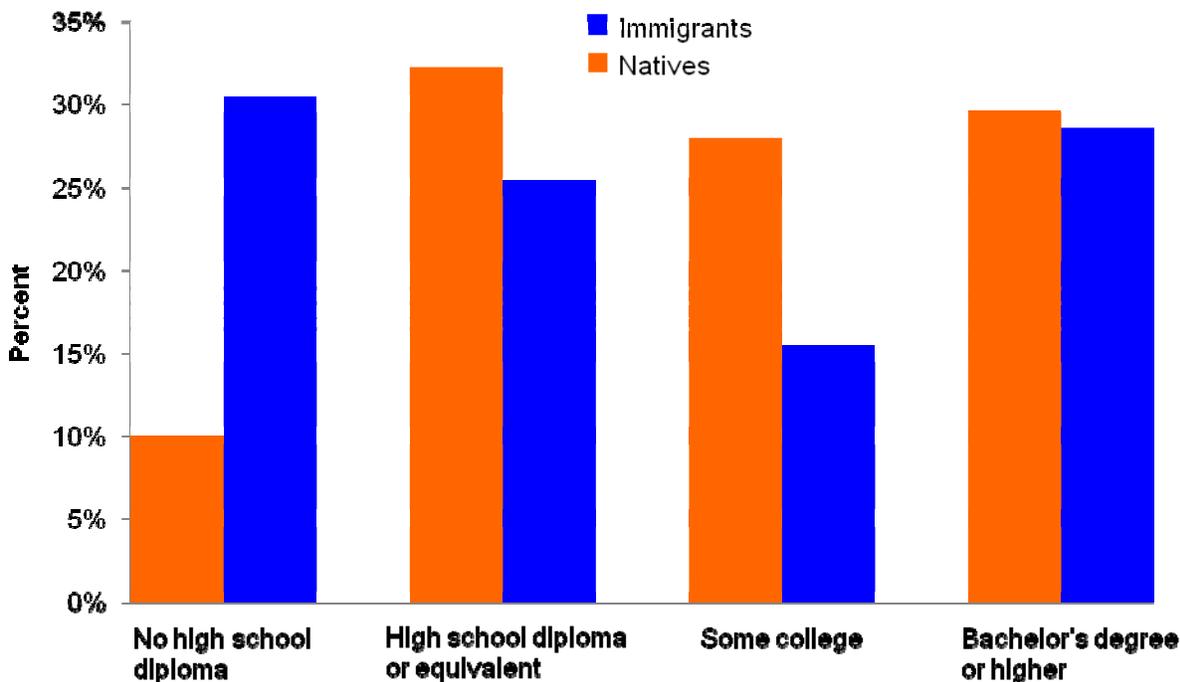
<sup>37</sup> A study using data from 1979, 1983, 1986, and 1988 reported weak evidence that employment and unemployment are more sensitive among male immigrants than among male natives to the national unemployment rate. See Barry R. Chiswick, Yinon Cohen, and Tzippi Zach, "The Labor Market Status of Immigrants: Effects of the Unemployment Rate at Arrival and Duration of Residence," *Industrial and Labor Relations* 50, no. 2 (1997): 289-303. Another study showed that hourly wages are more sensitive among immigrants than among natives to changes in state-level unemployment rates during the period 1979 to 2003. See Bernt Bratsberg, Erling Barth, and Oddbjørn Raaum, "Local Unemployment and the Relative Wages of Immigrants: Evidence from the Current Population Surveys," *Review of Economics and Statistics* 88, no. 2 (2006): 243-263.

<sup>38</sup> See, for example, Rebecca M. Blank, "Disaggregating the Effect of the Business Cycle on the Distribution of Income," *Economica* 56, no. 2 (1989): 141-163; Katharine L. Bradbury, "Rising Tide in the Labor Market: To What Degree Do Expansions Benefit the Disadvantaged?" *New England Economic Review* (2000): 3-33; and Hilary W. Hoynes, "The Employment, Earnings, and Income of Less Skilled Workers over the Business Cycle," in *Finding Jobs: Work and Welfare Reform*, ed. David E. Card and Rebecca M. Blank (New York: Russell Sage Foundation, 2000). For a broader discussion of the racial gap in economic outcomes, see, for example, Joseph G. Altonji and Rebecca M. Blank, "Race and Gender in the Labor Market," in *Handbook of Labor Economics*, vol. 3C, eds. Orley Ashenfelter and David Card (Amsterdam: Elsevier, 1999).

## A. Education

Although similar shares of immigrants and natives have at least a college education, a much higher share of immigrants has not completed high school. As Figure 9 shows, immigrants are considerably more likely to have low levels of education — meaning no high school diploma — than natives.<sup>39</sup>

**Figure 9. Education Distribution among Immigrants and Natives, Age 25 and Older, 2009**



*Note:* Sample restricted to adults age 25 and older.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January to June 2009.

Natives are concentrated in the middle to high end of the education distribution. Roughly equal shares of adult natives have a high school diploma (32 percent), some college (28 percent), and a bachelor's degree or higher (30 percent). Only 10 percent have not completed high school. Immigrants are less likely to be in the middle of the education distribution; about 25 percent have a high school diploma and 15 percent some college. In contrast, 30 percent of immigrants have no high school diploma, and 29 percent have a bachelor's degree or higher. Although educational attainment increased among both immigrants and natives during the last 15 years, natives have experienced a slightly faster pace of such change.

These differences in education largely shape the overall labor market performance trends for immigrants and natives. It is interesting, therefore, to compare the performance of immigrants and

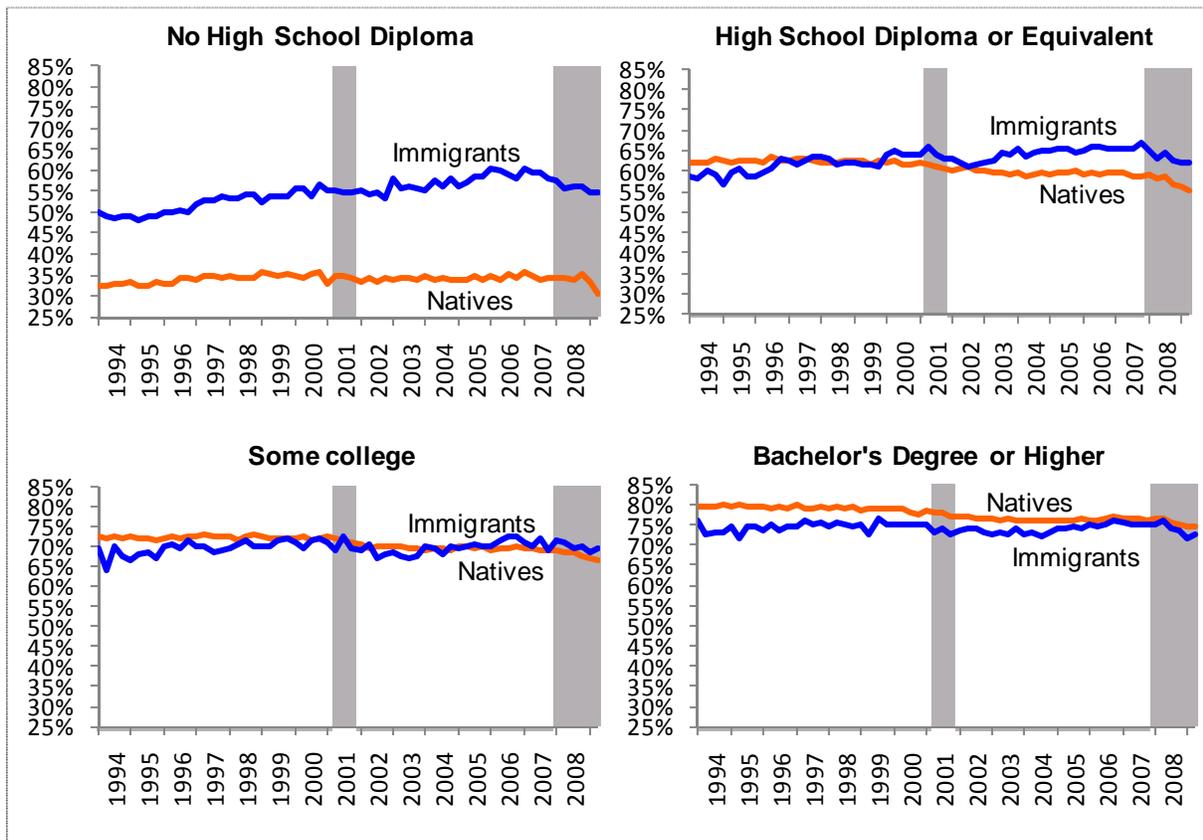
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<sup>39</sup> All data by educational attainment shown here include only individuals age 25 and older in order to capture completed education levels.

natives *within* education groups, such as college-educated immigrants and natives, or immigrants and natives without a high school diploma.

In fact, the most dramatic difference in employment and unemployment rates is between immigrants and natives who have not completed high school (see Figures 10 and 11). The employment rate among such immigrants is around 55 to 60 percent, which is over 20 percentage points higher than the employment rate among less-educated natives. Correspondingly, less-educated natives had higher unemployment rates than immigrants even before the recession began. These gaps widened during the housing boom, which benefited less-educated immigrants more than less-educated natives.

**Figure 10. Employment Rates by Nativity and Education, Age 25 and Older**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

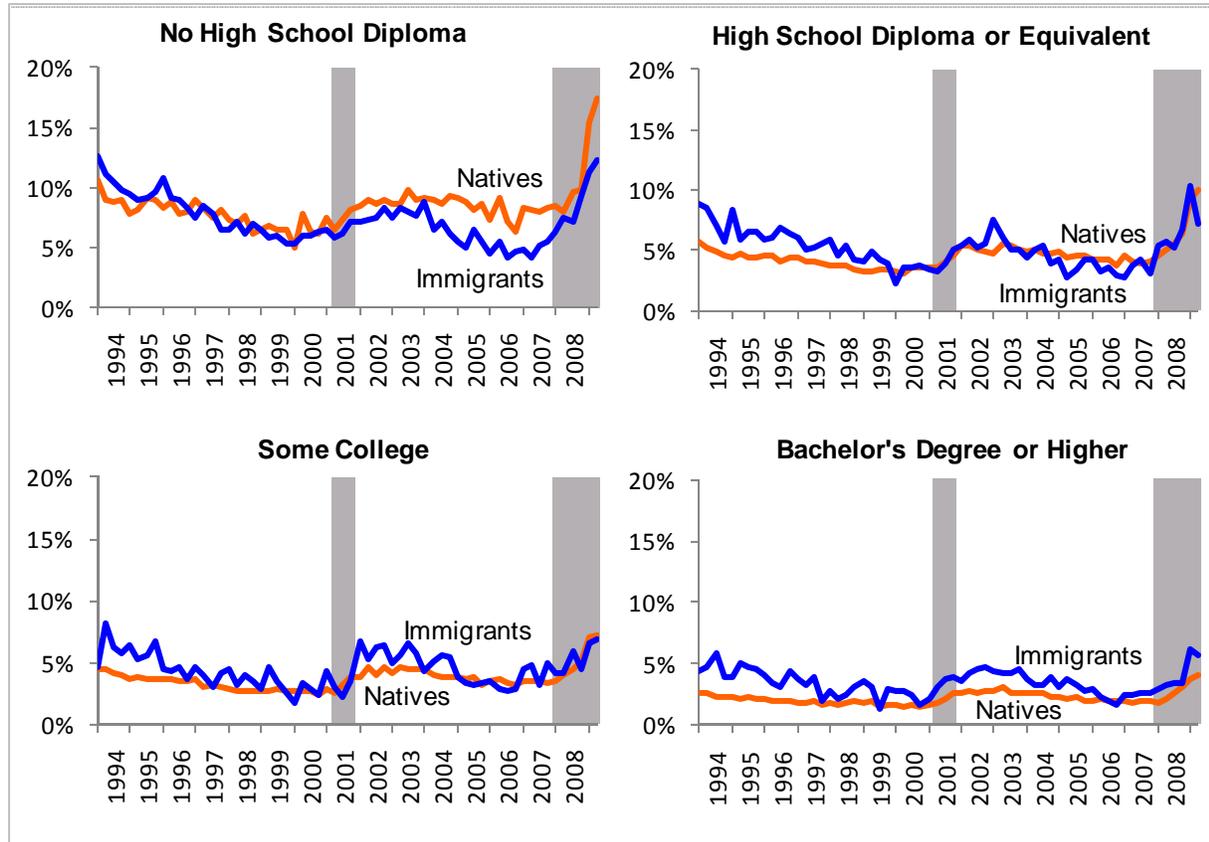
While less-educated immigrants tend to substantially outperform less-educated natives in terms of employment and unemployment, the opposite is the case among the highly educated. College-graduate immigrants tend to have slightly lower employment rates and higher unemployment rates than similarly educated natives.<sup>40</sup> In the first half of 2009, for example, college-educated immigrants

<sup>40</sup> The pattern is the opposite for the immigrant-native gap in median weekly earnings. Natives earn considerably more than immigrants in all education categories except for workers with a college degree. From 2005 to 2007, there was virtually no gap in median earnings between immigrants and natives with a college degree, although highly

averaged unemployment rates close to 6 percent, quite a bit higher than the 4 percent rate for college-educated natives.

The factors behind this disparity are likely similar to those affecting underemployment, meaning working in jobs that do not require a college education, of well-educated immigrants. These include poor fluency in English, lack of legal status, and nonrecognition of foreign credentials, such as professional licenses and university degrees.<sup>41</sup>

**Figure 11. Unemployment Rates, by Nativity and Education, Age 25 and Older**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

Statistical analysis again shows that cyclical trends in employment and unemployment are more pronounced for immigrants than for natives. The immigrant employment rate is far more sensitive to the business cycle than the native employment rate, with the largest differences occurring among

educated immigrants began earning less than natives with the onset of the recession. We do not show figures of median earnings or poverty rates by education since there is less evidence of cyclicity in those measures than for employment and unemployment.

<sup>41</sup> See Jeanne Batalova and Michael Fix with Peter A. Creticos, *Uneven Progress: The Employment Pathways of Skilled Immigrants in the United States* (Washington, DC: Migration Policy Institute, 2008), <http://www.migrationpolicy.org/pubs/BrainWasteOct08.pdf>; and Barry R. Chiswick and Paul W. Miller, "The International Transferability of Immigrants' Human Capital," *Economics of Education Review* 28, no. 2 (2009): 162-169.

the least educated workers. Short-run, cyclical fluctuations in the employment and unemployment rates of workers without a high school diploma are also much more strongly correlated with GDP growth for immigrants than for natives (for whom short-run fluctuations are not correlated with aggregate economic growth).<sup>42</sup> The recession has hit the least-educated immigrants and natives especially hard because of their overrepresentation in certain sectors, namely construction and manufacturing. We return to this issue below.

## **B. Race, Ethnicity, and Country of Origin**

It is well established that economic outcomes tend to differ between racial and ethnic groups. While some groups do at least as well as the majority group, non-Hispanic whites, others lag behind, particularly blacks and Hispanics. A multitude of factors underlies these differences, from discrimination to geographic isolation to the intergenerational transmission of poverty. As noted above, in addition to having worse economic outcomes, minorities also tend to have more volatile and cyclical economic outcomes. While research has shown such patterns among minorities as a whole, do these patterns hold among immigrants who are racial or ethnic minorities?

Among immigrants, race and ethnicity are closely associated with region of origin. As of 2007, about 59 percent of the foreign born reported being Hispanic while 18 percent reported being Asian (versus 12 and 4 percent of natives, respectively). Correspondingly, over 57 percent of the foreign born were from Latin America and 18 percent from Asia.<sup>43</sup> Because of this nearly one-to-one correspondence between region of origin and race/ethnicity, we focus on economic outcomes among immigrants by region of origin. Immigrants from Latin America and Asia are compared with immigrants from Western Europe and Canada (the “West” henceforth), who are predominantly non-Hispanic whites.

Immigrants from Latin America, Asia, and the West display clear differences in labor market performance (see Figures 12 and 13). Immigrants from Latin American and Asia have employment rates over 10 percentage points higher than immigrants from the West. On the other hand, Latin Americans are also consistently more likely to be unemployed. Immigrants from Asia and the West have similar unemployment rates, in large part because the groups have relatively similar educational distributions.<sup>44</sup>

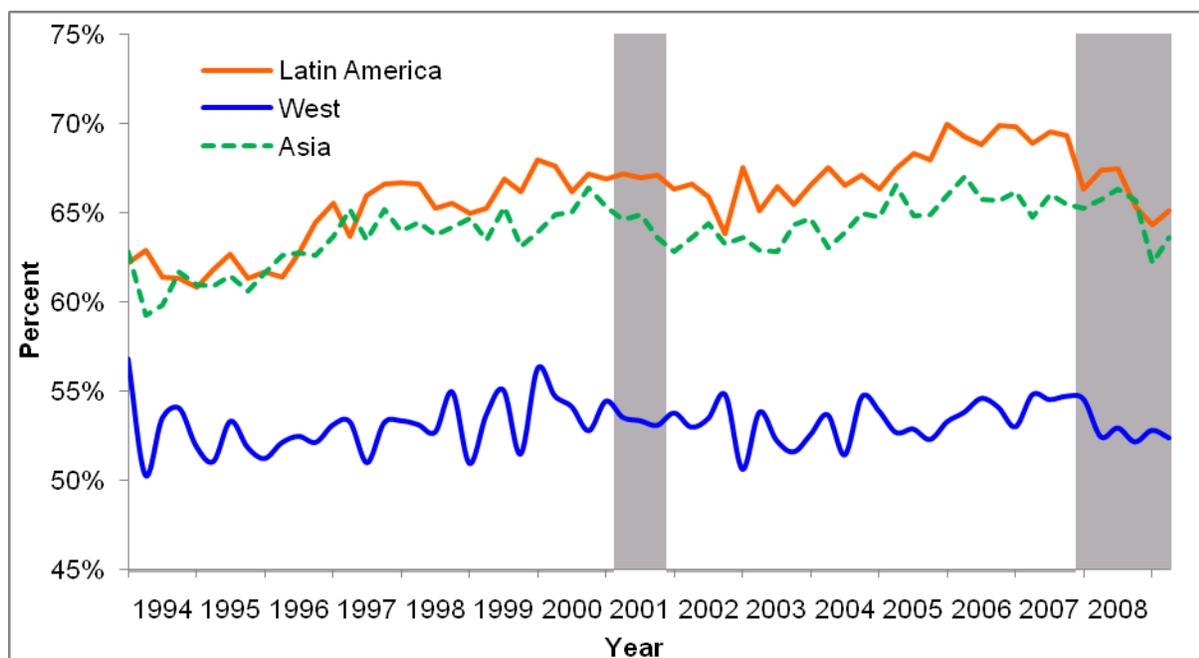
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<sup>42</sup> The correlation between the short-run component of the employment rate among adults who do not have a high school diploma and the growth rate of real GDP is 0.02 for natives and 0.32 for immigrants. Among adults who have a bachelor’s degree, the correlation is 0.11 for natives and 0.24 for immigrants. When it comes to the unemployment rate, differences in cyclical sensitivity are smaller for low-educated workers and disappear among college-educated workers. The correlation between the cyclical component of the unemployment rate among adults who do not have a high school diploma and the growth rate of real GDP is -0.11 for natives and -0.22 for immigrants. Among adults who have a college degree, in contrast, the correlation is -0.22 for natives and -0.20 for immigrants.

<sup>43</sup> Authors’ calculations from 2007 American Community Survey data from IPUMS. Individuals are asked to report their race and (separately) whether they are of Hispanic origin. We do not examine immigrants from Africa or of African descent (blacks) because their numbers are relatively small.

<sup>44</sup> For example, half of Latin American immigrants age 25 and older do not have a high school diploma versus 15 percent of immigrants from Asia and the West. Asian immigrants are actually a bit more highly educated than immigrants from the West; over 20 percent of Asian adult immigrants have a bachelor’s degree or higher versus 15 percent of Western immigrants. This may occur because Asian immigrants tend to be younger and as a result of cross-country differences in the returns to skill that promote skilled immigration from Asia more so than from the West. Authors’ calculations from 2007 American Community Survey data from IPUMS.

**Figure 12. Employment Rates among Immigrants by Region of Origin, Age 16 and Older**

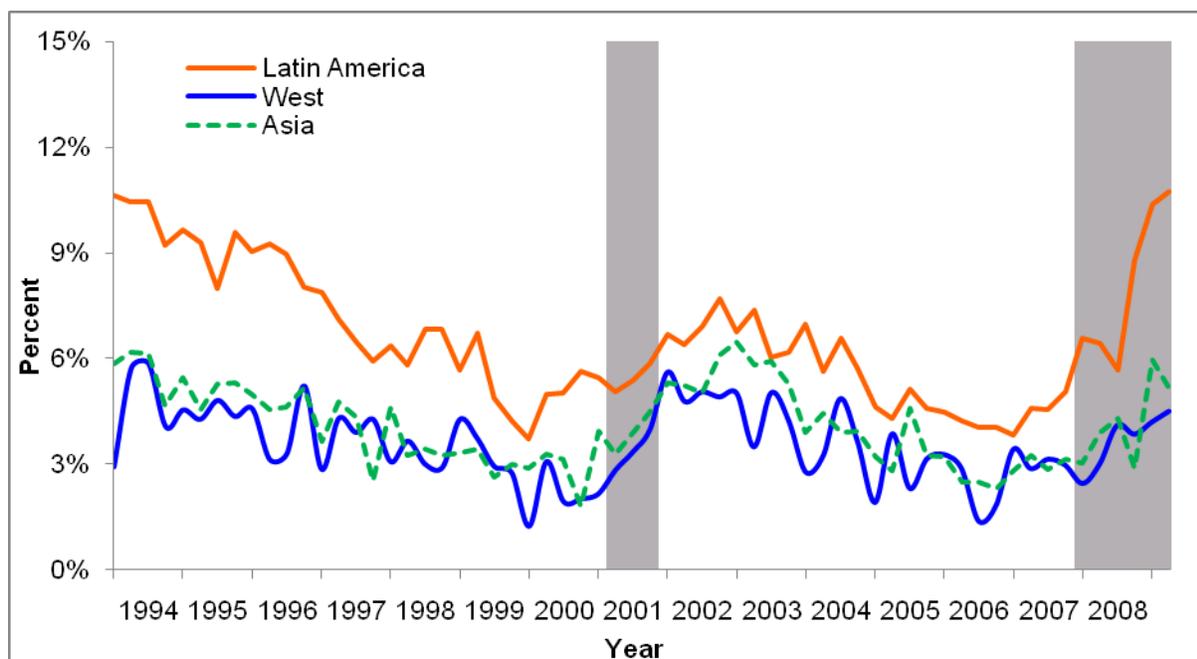


*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas. The West includes Western Europe and Canada.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

Asian immigrants' employment rate dropped more during the 2001 recession than the rates of other groups. This fits with the overrepresentation of Indian and Chinese immigrants in high-tech sectors, which that recession hit hardest. However, Latin American immigrants display the greatest sensitivity to the business cycle. These immigrants appear to have benefited particularly from the 2000s expansion, not surprising given their overrepresentation in construction (industry differences are discussed below). The unemployment rate among Latin Americans converged toward the lower rate among Asian and Western immigrants during the 1990s and 2000s expansions, but the gap widened noticeably with the construction bust. As house prices fell and residential construction employment plummeted starting in late 2006, the unemployment rate among Latin American immigrants began to skyrocket (see Figure 13).

**Figure 13. Unemployment Rates among Immigrants by Region of Origin, Age 16 and Older**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas. The West includes Western Europe and Canada.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

Despite these differences, there is no readily visible pattern of differences in employment rate cycles by region of origin (see Appendix B). However, more detailed statistical analysis indicates that fluctuations in Latin Americans' employment and unemployment rates are much more closely tied to the business cycle than those of Asian or Western immigrants.<sup>45</sup>

The fact that Latino immigrants have particularly cyclical labor market outcomes is interesting because several forces exacerbate cyclicity while others smooth outcomes among this group. The relatively low education levels among Latin American immigrants increase their vulnerability to the business cycle.<sup>46</sup> Unauthorized immigration also plays a role. Over half of Mexican immigrants are in

<sup>45</sup> The correlation between the short-run component of Latin American immigrant employment rates and real GDP growth is 0.30, versus 0.08 for Asian immigrants and 0.05 for Western immigrants. In correlations with real GDP growth, Latino immigrant unemployment rates are also much more cyclical; the correlation is -0.29 for Latin Americans compared with -0.13 and -0.06 for Asian and Western immigrants, respectively.

<sup>46</sup> However, a study that used data from the 1980 to 2000 decennial censuses does not find much evidence of excess sensitivity to the business cycle, as measured by state unemployment rates, among minority immigrants. (Notably, the decennial censuses all occurred near business-cycle peaks, so there is little variation in the national business cycle.) Consistent with the findings here, though, that study found that earnings are more cyclically sensitive for low-skilled immigrant men than for other groups; Latin American men tend to have much lower education levels than natives or other immigrants. It concluded that education level matters more than nativity or race/ethnicity. See George J. Borjas, "Wage Trends among Disadvantaged Minorities" (working paper 05-12, National Poverty Center, University of Michigan, August 2005), [http://www.npc.umich.edu/publications/workingpaper05/paper12/Borjas\\_WageTrends.pdf](http://www.npc.umich.edu/publications/workingpaper05/paper12/Borjas_WageTrends.pdf).

the United States illegally,<sup>47</sup> and the number of workers illegally crossing the US-Mexico border changes quickly in response to shifts in employment conditions in the United States.<sup>48</sup> This illegal immigration tends to increase the cyclicity of Latin American immigrants' employment and unemployment rates because many unauthorized immigrants enter only when they can find work. But illegal immigration also dampens the cyclicity of real earnings and poverty rates. However, the fact that unauthorized migrants may be particularly likely to leave the country when times are bad and they cannot find jobs acts to reduce the cyclicity of Latino employment and unemployment rates.<sup>49</sup> In addition, Latino workers are typically willing to migrate within the United States or switch industries and occupations in response to changing job opportunities, which also can lessen the cyclicity of their economic outcomes.

### C. Industry and Occupation

Another reason why immigrants tend to experience more variable and cyclical labor market employment outcomes than natives is because they are more likely to work in volatile industries. Industries whose fate is highly tied to overall economic growth include construction and manufacturing, whereas services and the government tend to be relatively shielded from macroeconomic fluctuations. During the period 1994 to 2009 as a whole, almost 10 percent of foreign-born workers were employed in the construction industry, versus 7 percent of natives. By the height of the construction boom in 2006, almost 13 percent of immigrants were working in that industry (again compared with 7 percent of natives) and they accounted for almost one-quarter of all construction workers.<sup>50</sup> Immigrants are also more likely to work in manufacturing industries and agriculture than natives, who are more likely to work in the finance, insurance, and real estate (FIRE) and government sectors. Although the recent recession has pummeled the financial sector, the construction industry began contracting earlier and perhaps more deeply.

Occupation also plays a role in immigrant-native disparities in exposure to the business cycle. Within industries, immigrants are more likely than natives to work in blue-collar and service occupations, and these jobs may be more likely to be cut in downturns. During the 1994-2009 period, over 30 percent of foreign-born workers were employed in blue-collar occupations, such as manual laborers, machine operators, and mechanics, compared with 23 percent of natives. Immigrants also were overrepresented in service occupations, such as private household and food service workers. By contrast, natives were overrepresented in professional, clerical, and sales occupations.

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<sup>47</sup> See Pew Hispanic Center, *Mexican Immigrants in the United States, 2008* (Washington, DC: Pew Hispanic Center, 2009), <http://pewhispanic.org/files/factsheets/47.pdf>.

<sup>48</sup> Demetrios G. Papademetriou and Aaron Terrazas, *Immigrants and the Current Economic Crisis: Research Evidence, Policy Challenges, and Implications* (Washington, DC: Migration Policy Institute, 2009), [http://www.migrationpolicy.org/pubs/lmi\\_recessionJan09.pdf](http://www.migrationpolicy.org/pubs/lmi_recessionJan09.pdf).

<sup>49</sup> The American Community Survey indicates that the foreign-born population fell by about 100,000 people between 2007 and 2008. The number of Mexicans fell by 300,000, suggesting not only smaller inflows but larger return migration to Mexico. See Conor Dougherty and Miriam Jordan, "Recession Hits Immigrants Hard," *Wall Street Journal*, September 23, 2009.

<sup>50</sup> Authors' calculations from the Current Population Survey outgoing rotation group data.

One recent study concludes that the unemployment rate is so much higher among immigrants than among natives in 2009 in large part because of these differences in occupations; within occupations, immigrants actually are as likely as not to have a lower unemployment rate than natives.<sup>51</sup>

#### **IV. What Can Public Policy Do to Reduce the Disparate Impact of Business-Cycle Downturns on Immigrant Households?**

Numerous programs at the federal, state, and local levels aim to help low-income families. Eligibility for and participation in such programs tend to rise during downturns although less so for immigrants than natives. The discrepancy is due to many reasons, some of which can be addressed by changes in program design and others that reflect more intractable problems. For example, while recessions affect immigrant-headed households more adversely than native-headed households, many immigrant-headed households are either ineligible for benefits because they are unauthorized or have not spent sufficient time in the United States. Also, immigrant-headed households may be reluctant to apply for benefits because they have at least one member who lacks legal status or US citizenship or because they are concerned about jeopardizing an application for naturalization or a green card. We leave issues regarding who should be eligible for transfer programs to others. We focus instead on possible program design changes that would better target eligible families in times of need while minimizing any adverse incentives on work effort.

Across the business cycle, immigrant households are more likely to be among the *working* poor than native households, which make them ineligible for many transfer programs. As shown in Figures 10 and 11, less-educated immigrants are much more likely to work and less likely to be unemployed, even during recessions. Some poor immigrant households therefore do not benefit from unemployment insurance during recessions because no one is actually unemployed. In addition, as discussed below, many unemployed immigrants are ineligible for unemployment insurance. Also, many immigrant households do not qualify for means-tested transfer programs, such as cash welfare and food stamps, because their income exceeds the low-income thresholds for those programs. These factors make traditional public assistance programs impractical tools for helping immigrant families ride out recessions.

We discuss three approaches to helping immigrant families who need assistance during economic downturns: modifying the earned income tax credit to give means-tested benefits to families suffering from unemployment or reduced work hours; targeting children through existing and expanded programs; and providing more financial assistance to local communities. The proposed changes would help natives as well as immigrants. But since immigrants appear to bear the worst brunt of recessions, particularly less-educated and Latin American immigrants, they would be among the primary beneficiaries of the proposals discussed below.

The public assistance program most closely tied to the business cycle is unemployment insurance, making it a natural candidate for helping immigrants during economic downturns. However,

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<sup>51</sup> Camarota and Jensenius, *Trends in Immigrant and Native Employment*.

unemployment insurance programs do not cover many legal immigrants who lose their jobs because they do not meet the minimum earnings requirement. In addition, legal immigrants may work in an uncovered job, a part-time or temporary job, or off the books; also, they may be self-employed or not employed with the same employer long enough to be eligible for benefits. Because of numerous exclusions and benefit time limits, only about 37 percent of all unemployed workers receive unemployment insurance.<sup>52</sup>

A modified version of the earned income tax credit (EITC) program might be a more effective way to help legal immigrant and native households during economic downturns.<sup>53</sup> The EITC is a refundable federal income tax credit for low- to moderate-income working individuals and families; many states with income taxes also have an EITC program. EITC programs at both levels are designed to encourage work and reduce poverty by supplementing low-wage workers' earned income.<sup>54</sup> Tax credits can even be received in advance throughout the year, making it a speedy way to get funds to those who need them. During downturns, EITC may become less effective because potential recipients might be unable to find work all year, meaning they would have no earned income on which EITC payments could be calculated. To counter this problem, the program could be adapted to channel funds to workers who have suffered a drop in their earnings during a recession. For example, families whose earnings are below their year-ago level because a worker was laid off or had his hours cut might receive a payment equal to part of the lost earnings. This payment would effectively act as unemployment insurance but would be conditioned on meeting the EITC eligibility criteria.

In fact, an adapted EITC program would be even more effective than traditional unemployment insurance for families experiencing economic hardship. First, EITC is based on family size; families with dependent children receive more credit than childless adults. In contrast, unemployment insurance is tied only to an individual's former earnings — not the family's earnings — and does not vary with the number of dependents. Second, EITC is based on earnings across all employers, which is important since many low-wage workers switch jobs frequently or work multiple part-time jobs. Unemployment insurance, however, requires a minimum period of work with a single employer.

A modified EITC program could have more impact during a recession than traditional welfare programs. Most importantly, it would reward low-income families with a history of labor force attachment. Traditional welfare programs tend to penalize work whereas EITC encourages it. EITC already targets low-income working families with children. The modified program for recessions suggested here could be even further targeted, for example at people living in areas with very high unemployment rates or working in certain industries.

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<sup>52</sup> This was the average reciprocity rate during the 1980-2007 period. Howard F. Rosen, "Reforming Unemployment Insurance for the 21<sup>st</sup> Century Workforce" (testimony before the Income Security and Family Support Subcommittee, House Ways and Means Committee, March 15, 2007).

<sup>53</sup> Unauthorized immigrants are not eligible for EITC since the program requires a valid Social Security number.

<sup>54</sup> Low-wage workers with positive earnings below a certain threshold receive an EITC payment that varies depending on income and family size. In 2008, the upper earnings threshold was approximately \$12,800 for single workers with no children, and just over \$41,000 for married couples with two or more children filing jointly. The maximum possible EITC credit was \$4,824 for a married couple with two children and joint earned income of between \$12,050 and \$18,750. See Internal Revenue Service, *1040 Instructions* (Washington DC: Internal Revenue Service, 2009), 53, <http://www.irs.gov/pub/irs-pdf/i1040.pdf>.

A second possibility would be to focus on children. Most children of immigrants are US citizens and hence categorically eligible for welfare programs just like the children of natives.<sup>55</sup> However, immigrant-headed households may be reluctant to apply for benefits for US-citizen children because of confusion or concerns about government involvement, particularly in “mixed-status” families in which at least one person is in the United States illegally. Running public awareness campaigns that emphasize the eligibility of US-citizen children for programs or having schools help immigrants apply for benefits for their children might increase participation. Also, expanding programs that require little to no parental involvement, such as free or reduced-price school meals and after-care or summer school programs, would help ease the financial burden on families during a recession.

Third, the federal government could provide additional resources during downturns to communities with large immigrant populations. For example, public hospitals could receive funding to help defray the costs of charity care to unauthorized immigrants and other uninsured individuals, costs that rise during recessions.<sup>56</sup> Not only would this help families who lose their health insurance along with their jobs, it also would ease the fiscal situation for their communities, which have both greater demands for funds and lower tax revenues during recessions. Federal money for such communities has the added benefit of not tying welfare to individuals, a situation that can create adverse incentives.

The above discussion assumes that policymakers want to use direct transfers to help immigrant families and communities hurt by economic downturns. Funneling more public funds toward low-income immigrants may be controversial. After all, studies suggest that less-educated immigrants already impose a negative fiscal impact on US taxpayers.<sup>57</sup> A more cost-effective alternative would be to encourage families to save and build up a buffer against future unemployment spells. For example, the federal government could work with community or non-profit groups to help immigrants and low-income natives get access to banks or other depository institutions and low-cost savings accounts.<sup>58</sup> Savings-incentive programs, where the government provides matching funds to

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<sup>55</sup> At least two-thirds of children of unauthorized immigrants — and four-fifths of all children of immigrants — are US citizens by birth. See Urban Institute, *Children of Immigrants: Facts and Figures* (Washington, DC: Urban Institute, 2006), [http://www.urban.org/UploadedPDF/900955\\_children\\_of\\_immigrants.pdf](http://www.urban.org/UploadedPDF/900955_children_of_immigrants.pdf). About 65 percent of immigrant-headed households include minor children versus 51 percent of native-headed households, based on authors’ calculations from March 2009 Current Population Survey data from IPUMS.

<sup>56</sup> About one-third of all immigrants — and 64 percent of unauthorized immigrants — do not have health insurance. See Steven A. Camarota, *Facts on Immigration and Health Insurance* (Washington, DC: Center for Immigration Studies, 2009), <http://www.cis.org/articles/2009/healthcare.pdf>. These rates are higher than among natives, but because immigrants are about 13 percent of the population, immigrants comprise about one-fifth of all nonelderly uninsured individuals. See Immigration Policy Center, *Sharing the Costs, Sharing the Benefits* (Washington, DC: Immigration Policy Center, 2009), <http://immigrationpolicy.pairsite.com/sites/default/files/docs/Sharing%20the%20Costs%20Sharing%20the%20Benefits%202009.pdf>. For a broader discussion of immigrants and health care reform, see Randy Capps, Marc R. Rosenblum, and Michael Fix, *Immigrants and Health Care Reform: What’s Really at Stake?* (Washington, DC: Migration Policy Institute, 2009), <http://www.migrationpolicy.org/pubs/healthcare-Oct09.pdf>.

<sup>57</sup> See chapters 6 and 7 in James P. Smith and Barry Edmonston, *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration* (Washington, DC: National Academy Press, 1997).

<sup>58</sup> In 2003, for example, the Mexican Consulate in Chicago partnered with the Federal Deposit Insurance Corporation to provide financial education to immigrants, leading to greater immigrant use of bank accounts. See Dovelyn Ranneveig Agunias, “Committed to the Diaspora: More Developing Countries Setting Up Diaspora Institutions” *Migration Information Source*, November 2009, <http://www.migrationinformation.org/Feature/display.cfm?ID=748>.

savers, have also proven effective in raising savings rates.<sup>59</sup> The underlying goal is to help all families, both immigrants and natives, smooth income across time on their own via savings instead of relying on public assistance programs in bad economic times. Of course, in a severe recession, these measures alone cannot solve the problems facing families in poverty, but they could certainly help to alleviate them.

A different way to reduce immigrants' business-cycle vulnerability in the future would be to restructure immigration policy so that it explicitly takes the business cycle into account. Under current law, Congress sets immigration quotas and changes them very infrequently.<sup>60</sup> Policy could instead tie quotas to changes in the labor market. For example, when the unemployment rate rises, the number of temporary work visas and green cards available could be reduced automatically. Shifting the emphasis from family-based admissions to employment-based admissions also would make immigrant inflows more cyclical since employment-based immigration is more likely to slow down during a recession.<sup>61</sup> As a result, immigrants and natives would compete with fewer new workers at times when employer demand for workers is relatively low. In addition, reducing immigrant inflows when economic conditions are weak can improve immigrant economic outcomes over the long run. Some previous research suggests that economic conditions at the time of entry have long-term effects on immigrants' outcomes.<sup>62</sup> Making immigrant policy more responsive to the business cycle requires no outlay of funds and would benefit immigrants already present in the United States and possibly natives as well.

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<sup>59</sup> See Esther Duflo, William Gale, Jeffrey Liebman, Peter Orszag and Emmanuel Saez, "Saving Incentives for Low- and Middle-Income Families: Evidence from a Field Experiment with H&R Block" (Cambridge, MA: National Bureau of Economic Research Working Paper 11680, 2005), <http://www.nber.org/papers/w11680>.

<sup>60</sup> Refugee quotas would not be included in the process described here as they are admitted primarily on humanitarian or geopolitical grounds.

<sup>61</sup> For a discussion on how legal immigration, particularly family-based immigration, is relatively unresponsive to the business cycle, see Gordon H. Hanson, *The Economic Logic of Illegal Immigration* (Washington, DC: Council on Foreign Relations, 2007), [http://www.cfr.org/publication/12969/economic\\_logic\\_of\\_illegal\\_immigration.html](http://www.cfr.org/publication/12969/economic_logic_of_illegal_immigration.html).

<sup>62</sup> Immigrants who enter the United States during relatively weak periods appear to have lower earnings not only at entry but also over time. See Barry R. Chiswick and Paul W. Miller, "Immigrant Earnings: Language Skills, Linguistic Concentrations and the Business Cycle," *Journal of Population Economics* 15, no. 1 (2002): 31-57; and Alice Nakamura and Masao Nakamura, "Wage Rates of Immigrant and Native Men in Canada and the United States," in *Immigration, Language, and Ethnicity: Canada and the United States*, ed. Barry R. Chiswick (Washington, DC: AEI Press, 1992). Chiswick and Miller suggest that the effect of the initial unemployment rate on earnings takes 18 years to die out (given mean historical unemployment rates). However, Chiswick, Cohen, and Zach conclude that the unemployment rate at arrival is not associated with employment and unemployment over the long run; Bratsberg, Barth, and Raaum do not find that the unemployment rate at the time of entry is associated with immigrants' current wages. Chiswick, Cohen, and Zach, "The Labor Market Status of Immigrants"; Bratsberg, Barth, and Raaum, "Local Unemployment and the Relative Wages of Immigrants."

## V. Conclusion

The long-run trend over the past 15 years is one of economic progress for immigrants. Economic booms have hastened this progress while the recent recession has slowed it. As the data show, recessions harm employment prospects and raise unemployment and poverty rates. Median earnings are more stable over the business cycle than the other economic variables examined here, and the immigrant-native earnings gap has been largely unchanged since the last recession.

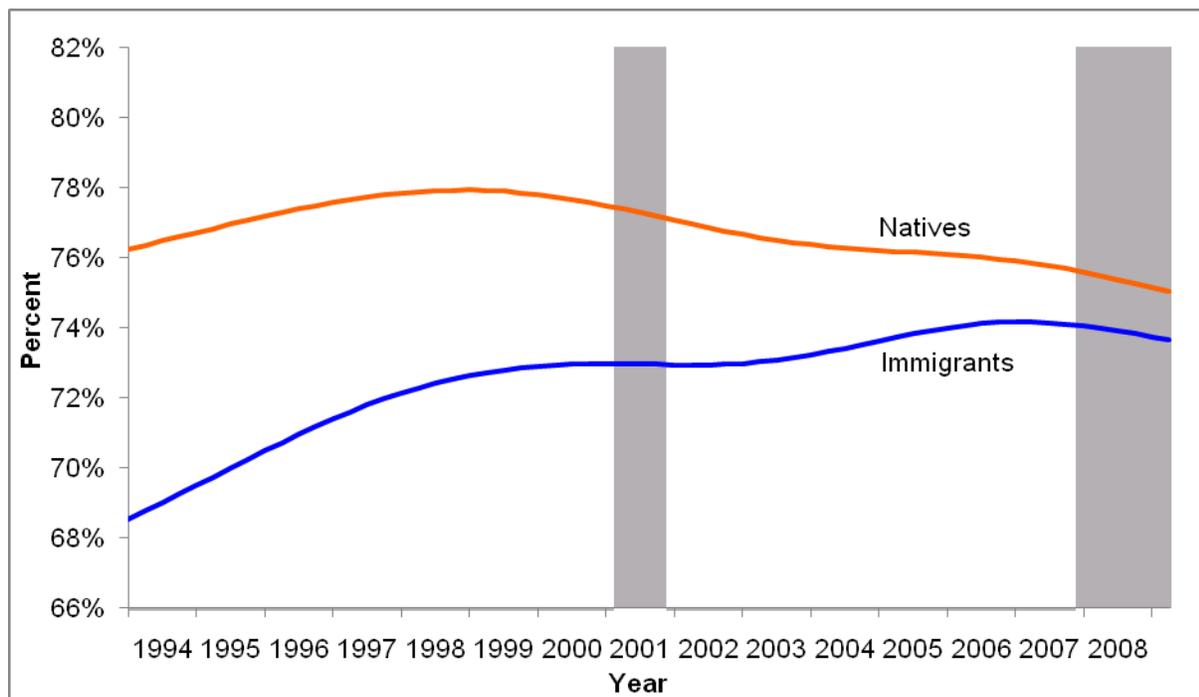
Immigrants' economic outcomes tend to be more sensitive to the business cycle than those of natives, particularly with regard to employment. Cyclicalities are most pronounced among less-educated immigrants and immigrants from Latin America. This is consistent with two stylized facts. First, many less-educated immigrants take up jobs in sectors that are highly tied to overall economic growth, such as construction and manufacturing. Second, immigrants from Latin America tend to be unauthorized (in addition to being less educated), and illegal migration is closely tied to the business cycle. In good times, when these inflows surge, booming industries disproportionately hire immigrants, who work in jobs with high demand. Meanwhile, many immigrants are blocked from the most stable sectors, such as government.

Immigrants' greater vulnerability to the business cycle raises an interesting problem for public policy. Existing welfare programs are ill-suited to deal with families whose fortunes rise and fall with the macroeconomy. Unemployment insurance, policymakers' main tool during recessions, covers only a minority of unemployed workers and has a large number of exclusions that make it insufficient for helping low-wage workers, who are more likely to move between jobs, hold several part-time jobs, or be self-employed. A modified EITC program that is means-tested, kicks in during recessions, and is triggered by changes in family income, not necessarily by job loss, might be an option for consideration. Another option would be targeting US-citizen children, many of whom have immigrant parents who may not enroll their children in benefits programs for fear of jeopardizing their own immigration paperwork. In addition to educating parents about such programs, governments could increase funding for subsidized school meals, day care and after-school programs, or health care. Finally, funds for communities with large immigrant populations would also help offset recession-induced budget shortfalls for public schools and hospitals.

Lastly, reforming US immigration policy could also help mitigate immigrants' vulnerability to the business cycle, albeit in a more explicit way. By making employment-based flows a larger share of all immigration, inflows would be more cyclical, falling during recessions and rising during expansions. This would better sync immigration with economic growth, lessening the burden on competing workers and reducing the need for expanded safety-net programs during economic downturns.

## Appendices

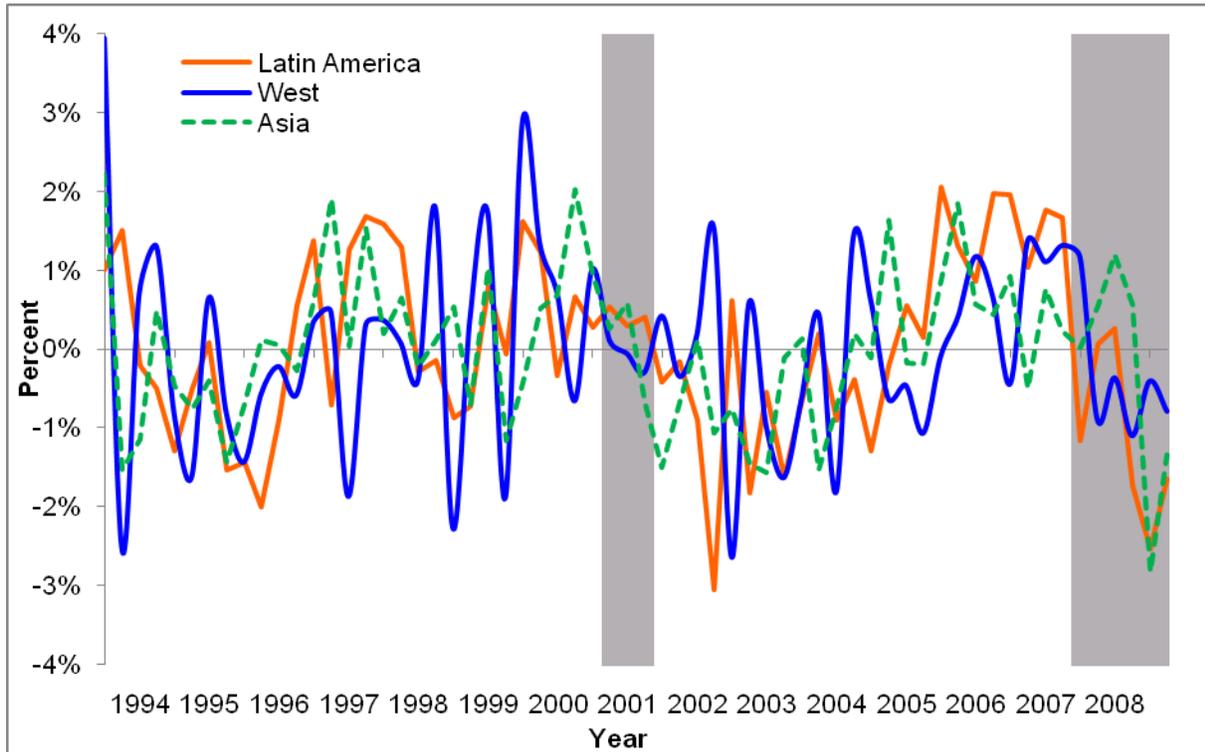
### Appendix A. Long-Run Trends in Employment Rates by Nativity, Ages 25 to 64, First Quarter 1994 to Second Quarter 2009



Note: Data are seasonally adjusted. Recessions are shown as shaded areas.

Source: Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

**Appendix B. Short-Run Fluctuations in Employment Rates among Immigrants by Region of Origin, Age 16 and Older, First Quarter 1994 to Second Quarter 2009**



*Note:* Data are seasonally adjusted. Recessions are shown as shaded areas. The West includes Western Europe and Canada.

*Source:* Authors' calculations from US Census Bureau, Current Population Survey, January 1994 to June 2009.

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