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## THE CONTRACTION IN CONSTRUCTION SQUEEZED IMMIGRANTS HARDEST

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The Great Recession—which officially lasted from December 2007 to June 2009—began when an \$8 trillion housing bubble burst. As the housing bubble inflated, employment expanded in construction, an industry in which immigrant workers, more than their native-born counterparts, were increasingly concentrated. At the peak of the housing bubble in 2006, 8.1% of workers were employed in construction. Although roughly two-thirds (67.5%) of construction workers were native-born males, only 12.4 percent of native-born males were in construction. In contrast, while a little less than one-fifth (18.7%) of construction workers were foreign-born males who were not naturalized U.S. citizens, more than a quarter (25.7%) of that group was working in construction—double the share of native-born males in construction.

Immigrant workers were therefore particularly precariously situated when housing prices collapsed and the construction industry began hemorrhaging jobs.

This paper focuses on native-born and foreign-born non-citizen males who together comprised 86.2% of all construction workers in 2006. The paper examines how the disproportionate concentration of immigrants in the construction industry affected the relative labor market outcomes of foreign-born and native-born workers during the Great Recession and its aftermath. Key findings include:

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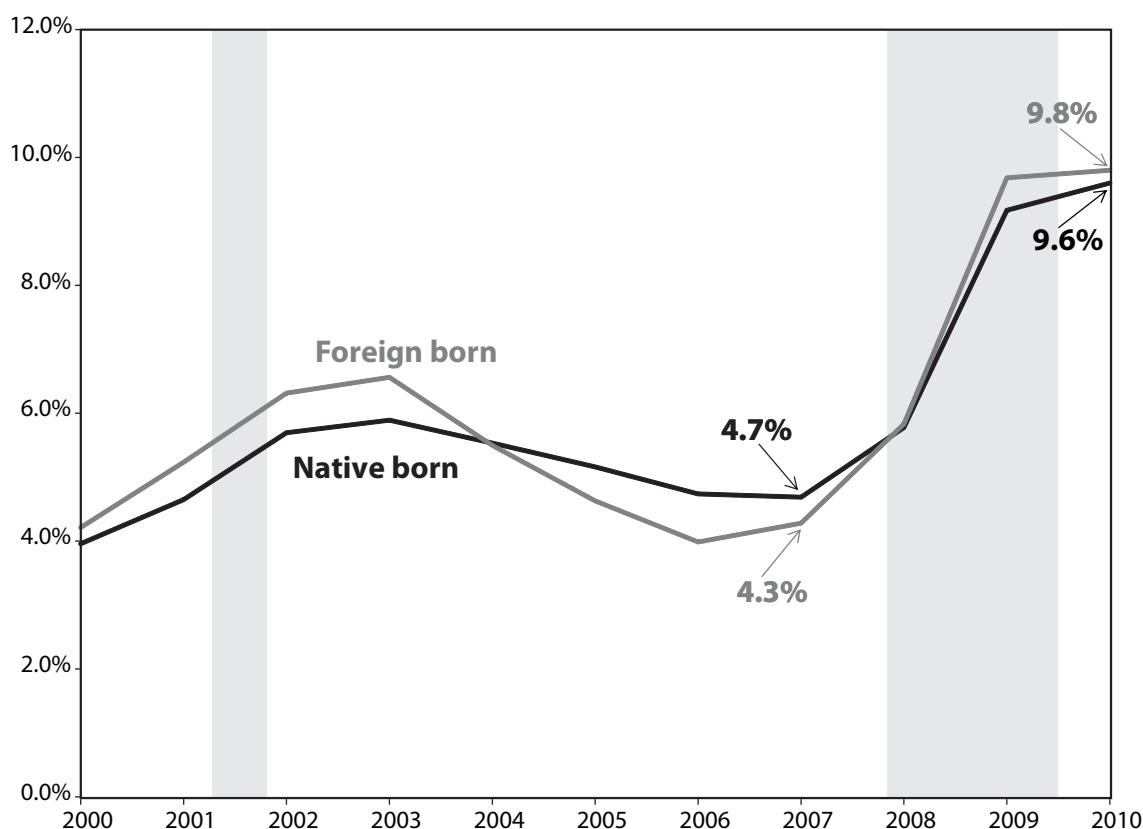
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- **Foreign-born non-citizen men in construction suffered greater job losses than their native-born counterparts.** From 2007 to 2010, employment among foreign-born non-citizen males in construction fell 30.1%, compared with 21.6% among native-born males in construction. Outside of construction, employment among foreign-born non-citizen males fell 8.0%, compared with 4.0% among native-born males.
  - **The steep job losses for foreign-born non-citizen men in construction likely occurred in part because they are much more concentrated in the residential construction subsector.** Residential construction saw larger employment losses than other sectors within construction. Losses were not as steep in the higher-paying non-residential and heavy and civil engineering subsectors populated by native-born males.
  - **Likely due to the compositional shift away from lower-paying residential jobs in construction as the recession took hold, foreign-born non-citizen men in construction suffered disproportionate wage declines, while average wages rose among their native-born counterparts.** For native-born men, the median wage in construction (\$17.88) was similar to the median wage outside of construction (\$17.98) in 2006. But between 2006 and 2010, the median wage for native-born men in construction grew by 7.6% to \$19.24, compared with 0.3% growth to \$18.03 for native-born men outside of construction. For foreign-born men who were not citizens, the median wage in construction (\$12.41) was slightly higher than the median wage outside of construction (\$12.16). But between 2006 and 2010, the median wage for foreign-born non-citizen males in construction declined by 3.1%, to \$12.04, compared with a decline of 0.7%, to \$12.08, for foreign-born non-citizen males outside of construction.
  - **Also likely due in part to immigrant concentration in the lower-paying residential construction subsector, foreign-born non-citizen men in construction continue to earn much less than native-born men in construction.** Foreign-born men who were not citizens earned \$12.04 in 2010, while native-born men in construction earned \$19.24.
  - **Despite facing greater job losses, male foreign-born non-citizen construction workers are less likely than their native-born counterparts to get stuck in unemployment for long periods.** Evidence suggests that this is at least partly because foreign-born non-citizen construction workers who have been laid off are more likely to leave the construction labor force—often by leaving the country entirely—instead of remaining unemployed for long periods.
  - **Displaced foreign-born non-citizen male construction workers have a 50-50 chance of finding another job in the United States.** Only about half (49.4%) of foreign-born male workers who were displaced from construction jobs between 2007 and 2009 and remained in the country were reemployed in early 2010. Of these, a little over half (56.5%) were reemployed in construction; the others secured jobs in other industries. Those who were displaced from a full-time job and reemployed in a full-time job typically took a roughly 6% pay cut.

The non-citizen, foreign-born construction workers who saw the greatest loss of jobs in the wake of the Great Recession have, at least according to these data, likely benefited less than their native-born counterparts from certain government interventions (e.g., emergency unemployment benefits) that were taken to slow the economic slide. Many have left the country or remained but struggled to get by without as much work.

While this paper focuses on specific segments of the male working population, tables in the Appendix offer complete data comparing employment and wage trends in and outside of construction, with all gender and citizenship breakdowns.

**FIGURE A****Unemployment rates of foreign- and native-born workers, 2000–10**

**NOTE:** Shaded areas denote recessions.

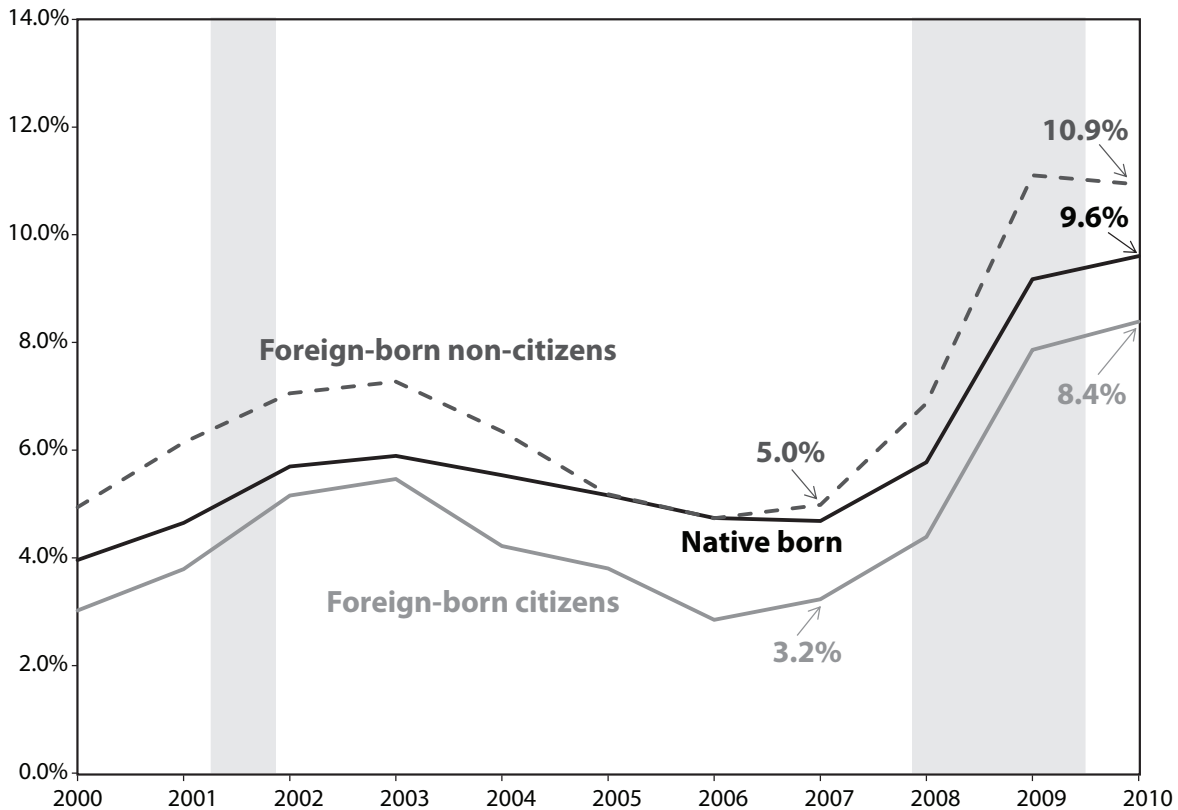
**SOURCE:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

## Introduction:

### Labor market outcomes differ by nativity and citizenship status

In the Great Recession and its aftermath, unemployment increased substantially among all demographic groups. **Figure A** shows unemployment rates of foreign- and native-born workers. As the figure shows, both groups saw their unemployment rates more than double between 2007 and 2010. In 2007, 4.3% of foreign-born workers were unemployed, a slightly lower unemployment rate than native-born workers (4.7%). Three years later, the unemployment rate of foreign-born workers had risen 5.5 percentage points to 9.8%. Native-born workers fared only slightly better, with a 4.9 percentage point increase in their unemployment rate, to 9.6%.

Among foreign-born workers, labor market outcomes are very different between those who are naturalized U.S. citizens and those who aren't, in large part because these two groups differ substantially along demographic factors, including educational attainment, race and ethnicity, age, gender, time in country, country of origin, and, as shown later, industry. See Shierholz (2010) for an in-depth discussion of the demographic differences between these two groups.

**FIGURE B****Unemployment rates of foreign- and native-born workers, by citizenship, 2000–10**

**NOTE:** Shaded areas denote recessions.

**SOURCE:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

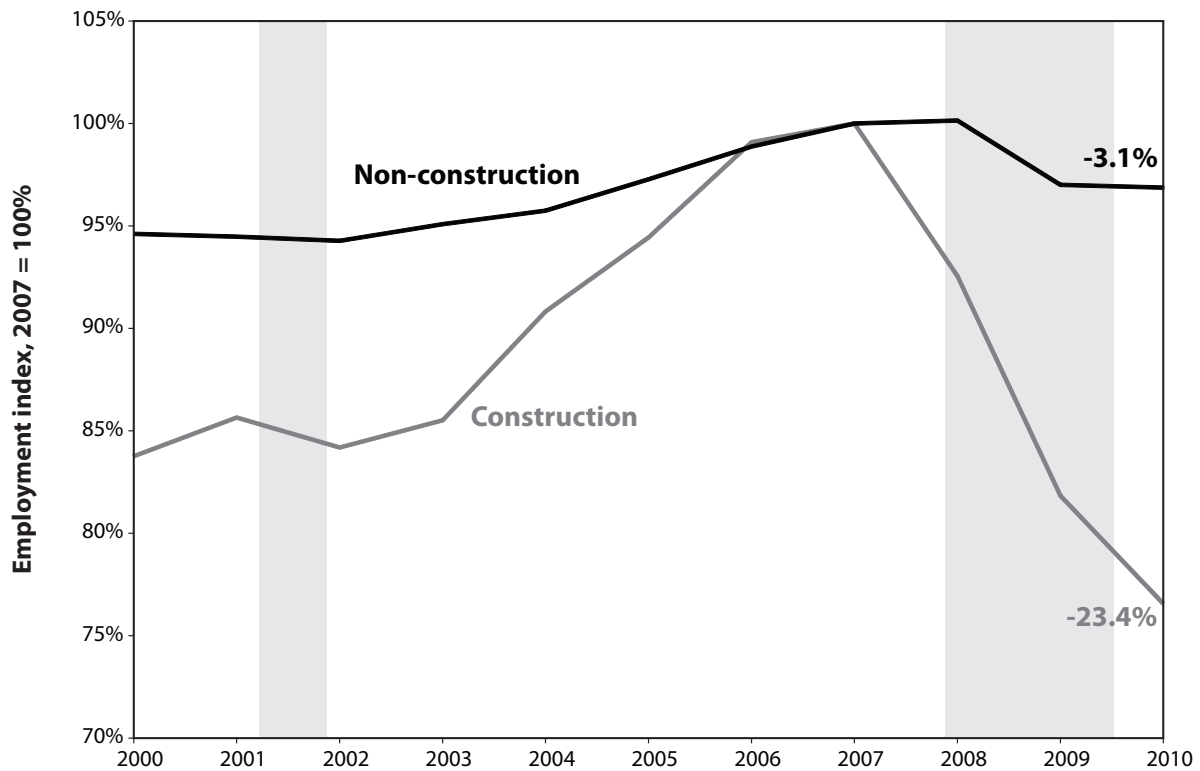
**Figure B** is identical to Figure A except that it breaks out the foreign-born into naturalized U.S. citizens and non-citizens. In 2007, foreign-born non-citizens had a higher unemployment rate than foreign-born citizens (5.0% compared with 3.2%), and they also saw a much bigger increase from 2007 to 2010 (5.9 percentage points, to 10.9%, compared with a 5.2 percentage point increase for foreign-born citizens). Because of these differences, the analyses that follow will look at breakdowns by citizenship status, not just nativity.

### Certain groups hit hardest as recession decimated construction

As mentioned earlier, this recession began with the bursting of a giant housing bubble. Employment in construction grew dramatically as the bubble grew, then fell precipitously as the bubble burst. **Figure C** shows construction and non-construction employment over the 2000s, indexed to 100 in 2007. The bubble, (which is generally dated from 1997 to 2006, though this plot begins in 2000) is apparent. Over the business cycle from 2000 to 2007, construction employment grew 19.4%, whereas non-construction employment grew 5.7%. From 2007 to 2010, construction employment declined by 23.4%, whereas non-construction employment declined by 3.1%.<sup>1</sup>

**FIGURE C**

**Employment in construction and non-construction industries, 2000–10**



NOTE: Shaded areas denote recessions.

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

**TABLE 1**

**Construction employment by group at peak of housing bubble (2006)**

		Share of group working in construction	Share of construction employment held by group
<i>All</i>	All	8.1%	100.0%
	Native-born	7.3	76.0
	Foreign-born citizen	5.9	4.5
	Foreign-born non-citizen	17.2	19.4
<i>Male</i>	All	13.7	90.4
	Native-born	12.4	67.5
	Foreign-born citizen	10.2	4.2
	Foreign-born non-citizen	25.7	18.7
<i>Female</i>	All	1.7	9.6
	Native-born	1.7	8.6
	Foreign-born citizen	1.0	0.4
	Foreign-born non-citizen	1.7	0.7

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

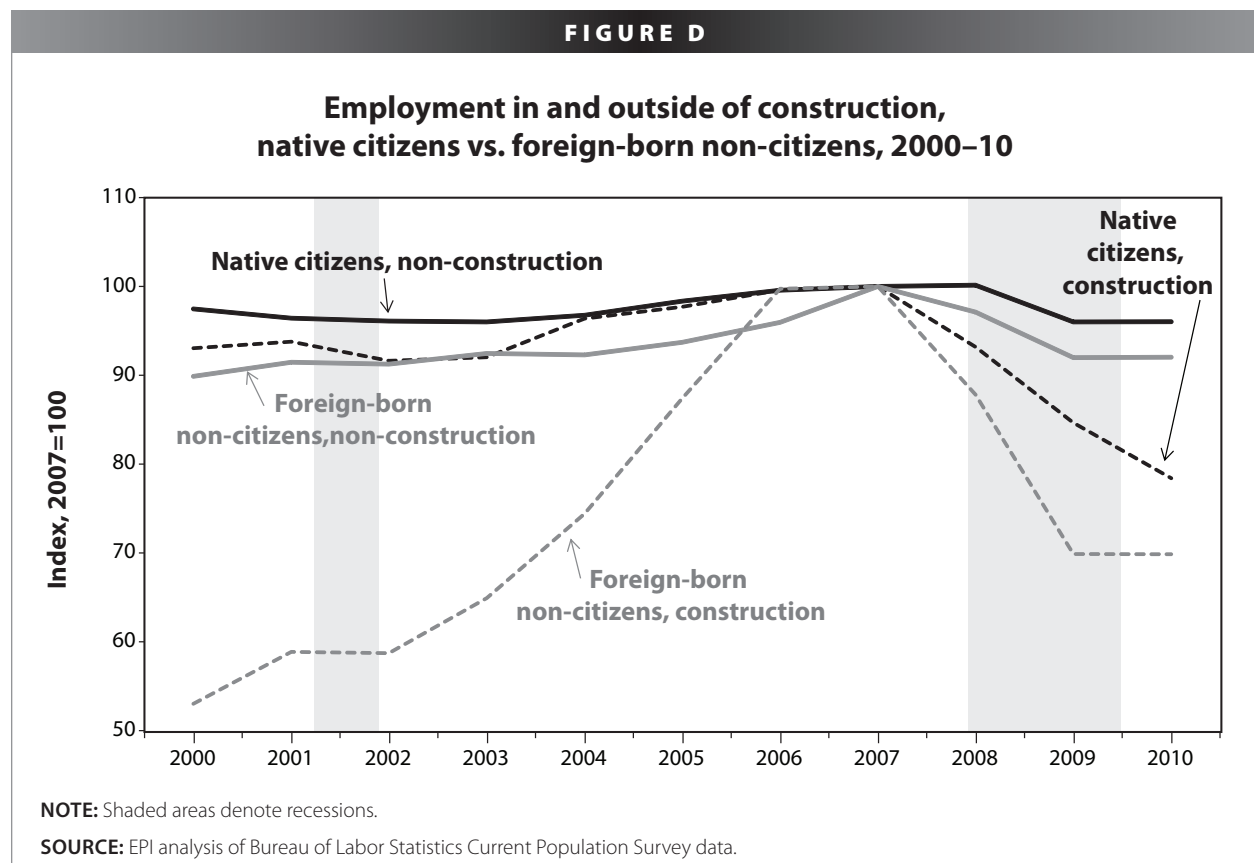
As shown in the first data column in **Table 1**, at the peak of the housing bubble in 2006, 8.1% of workers were employed in construction. However, this overall number masks substantial variation by citizenship status and gender. More than one in four (25.7%) foreign-born non-citizen males were in construction, compared with 10.2% of foreign-born male citizens and 12.4% of native-born male workers.

Furthermore, relatively few women are in construction. In 2006, less than 2% of female workers in each of the three categories were in construction.

The second data column of Table 1 shows the share of total construction employment held by workers in each of the demographic categories. In 2006, roughly two-thirds (67.5%) of construction workers were native-born males, and a little less than one-fifth (18.7%) were foreign-born non-citizen males. These two groups comprise 86.2% of all construction workers. For this reason, much of what follows focuses on these two groups.

Note that in **Appendix Table A1**, there is a further breakdown of Table 1 by race and ethnicity. It shows that Hispanic males are particularly concentrated in construction. In 2006, 23.7% of Hispanic male workers were employed in construction, compared with 12.9% of non-Hispanic white male workers and 7.8% of non-Hispanic black male workers. When looking at just Hispanic male workers who are foreign-born and not naturalized U.S. citizens, the share concentrated in construction rises to 33.8%. In other words, in 2006, one-third of all Hispanic male workers who were foreign-born and not naturalized U.S. citizens were employed in construction. Hispanic males made up 24.0% of all construction employment in 2006, while white non-Hispanic males made up 59.1% and black non-Hispanic males made up 4.7%. (See Kochhar (2008) for a further discussion of Hispanics and construction.)

**Figure D** shows construction and non-construction employment in the 2000s, indexed to 100 in 2007, separately for native-born males and foreign-born males who are not naturalized citizens. (See **Appendix Table A2**



for complete data, including all gender and citizenship breakdowns.) The housing bubble and burst are very apparent, particularly among foreign-born non-citizen males. Over the business cycle from 2000 to 2007, construction employment among foreign-born non-citizen males grew enormously, by 88.6%, compared with employment outside of construction among foreign-born non-citizen males, which grew by 11.3%. For native-born males, the growth rates over this period were much more modest – employment in construction among native-born males grew by 7.5%, compared with employment outside of construction among native-born males, which grew by 2.6%.

However, from 2007 to 2010, the situation reversed. Foreign-born non-citizen males saw significantly larger employment losses than native-born males both inside the construction industry and outside it, but the disparity in construction was particularly strong. Construction employment among foreign-born non-citizen males fell 30.1%, compared with 21.6% among native-born males, whereas outside of construction, employment among foreign-born non-citizen males fell 8.0%, compared with 4.0% among native-born males.

## Wages both inside and outside construction

For both foreign-born citizens and native citizens, wages overall stagnated in the 2000s. **Figure E** shows median real wages over the 2000s by nativity and citizenship. Wages have been essentially flat over this period, and very similar for native-born and naturalized U.S. citizens. In 2010, the median hourly wage of foreign-born citizens was \$16.47, 1% higher than the median wage of native-born workers, which was \$16.23. The median wage of foreign-born workers who were not U.S. citizens was \$11.33, 30% below that of native-born workers.

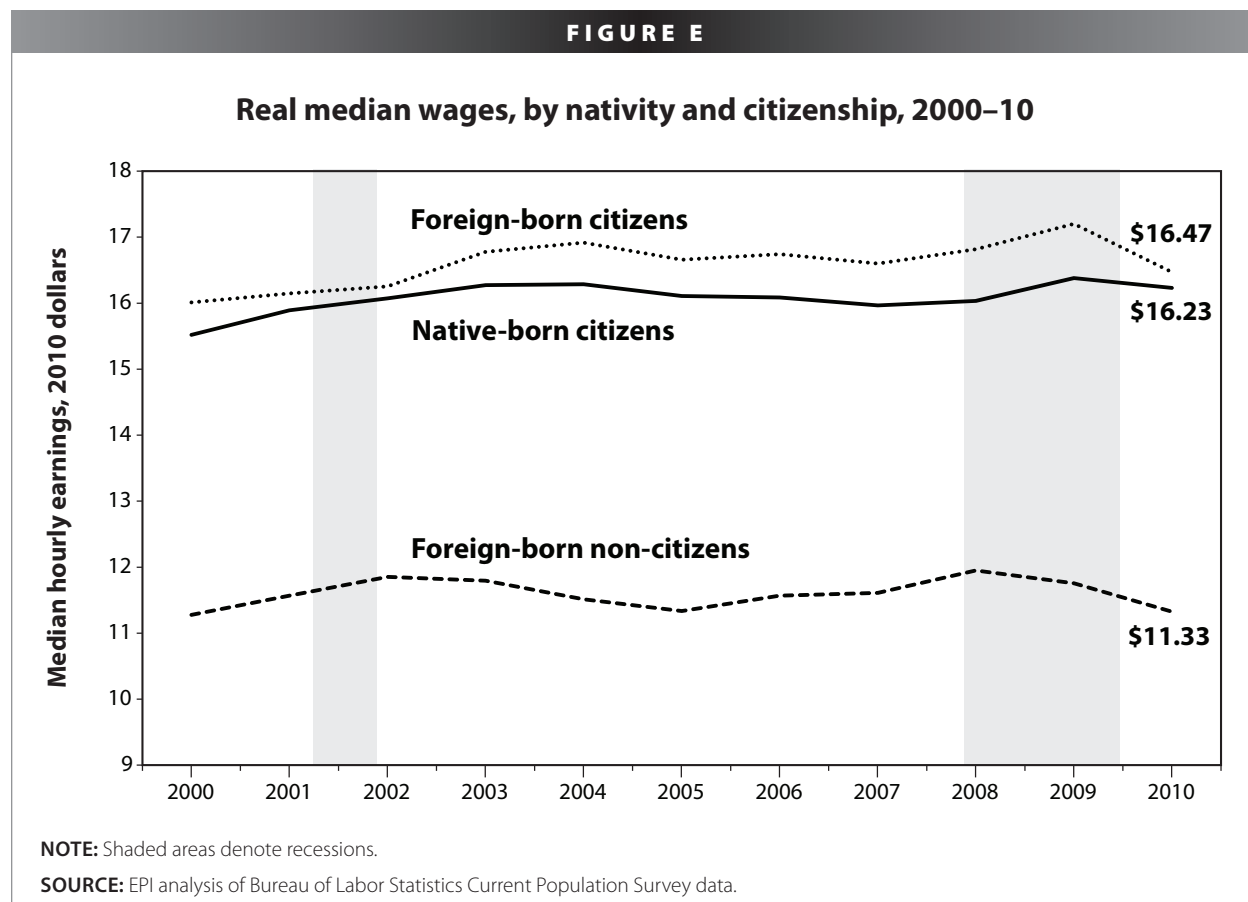
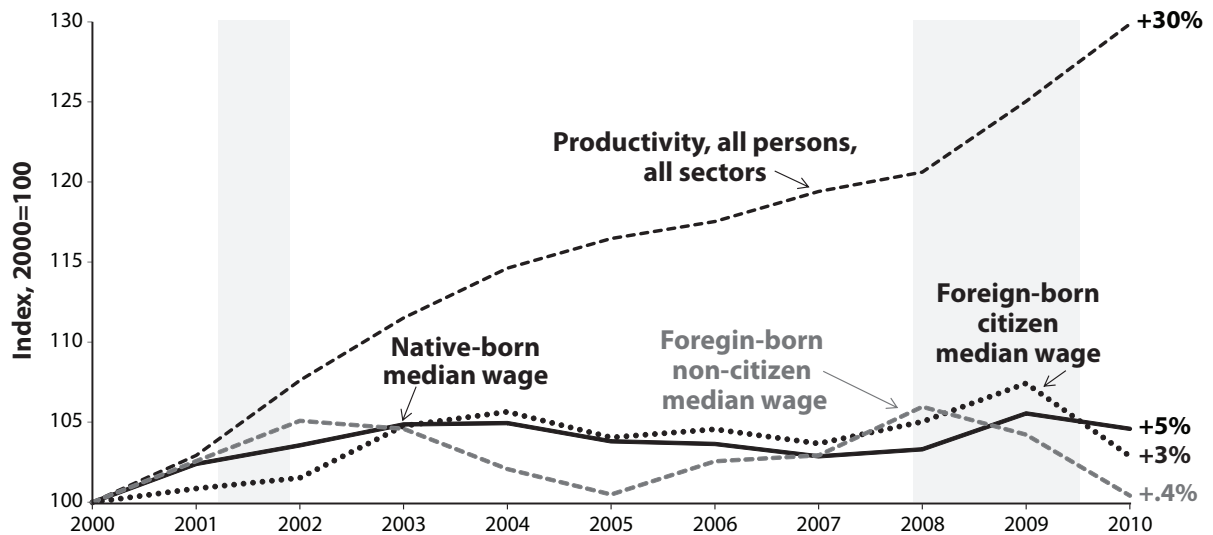


FIGURE F

Productivity and wages by nativity and citizenship, 2000–10



NOTE: Shaded areas denote recessions.

SOURCES: EPI analysis of Bureau of Labor Statistics Current Population Survey and Bureau of Labor Statistics nonfarm business productivity data.

Figure F shows wages indexed to 100 in 2000, along with productivity (which is the average value of goods and services a worker produces in an hour). Pay failed to keep pace with productivity for all groups. From 2000–2010, U.S. productivity grew by 30%. In comparison, the median wage for native-born workers grew by just 5%, the median wage for foreign-born citizens grew by just 3%, and the median wage for foreign-born non-citizens was roughly the same in 2010 as it was in 2000. In other words, while productivity grew strongly, wages for all three groups stagnated over the last 10 years, with no group sufficiently benefiting from the economic fruits of their labors.

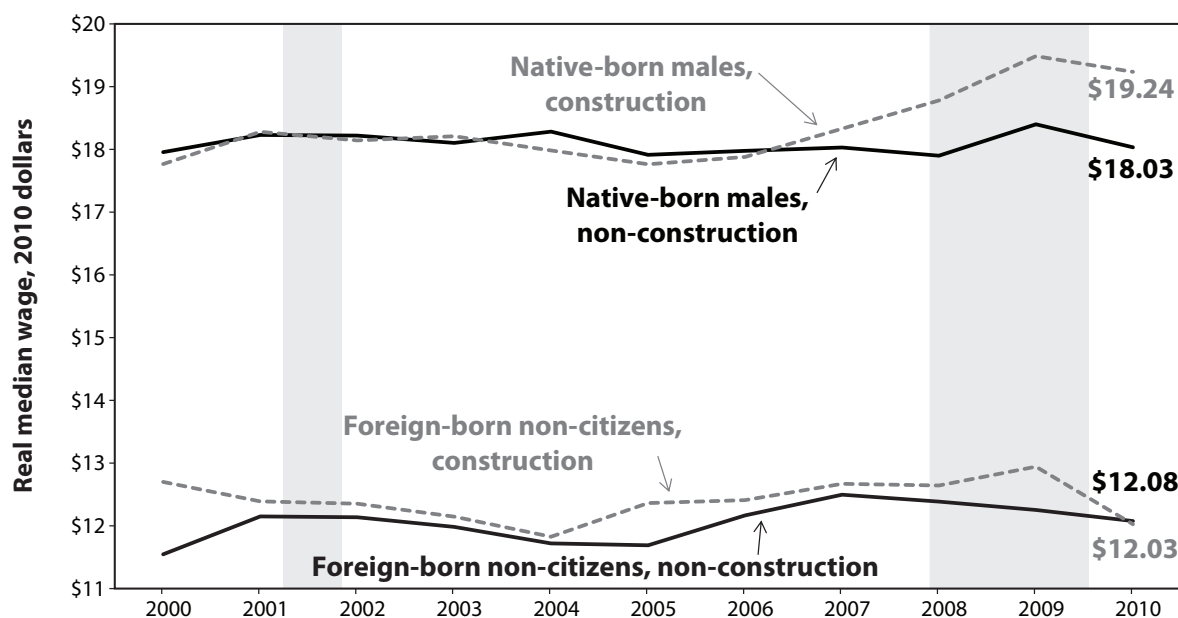
Given the very low share of female workers in construction (as shown in Table 1), and the strong concentration of foreign-born males who are not naturalized citizens in construction, the following wage figures within and outside of construction focus on male native-born citizens and foreign-born non-citizens. However, Appendix Table A3 contains complete wage data, including all gender and citizenship breakdowns.

Curiously, while wages overall stagnated in the 2000s, the wages of native-born males in construction increased substantially as overall construction employment fell. Figure G shows the real median wage for construction workers and non-construction workers over the 2000s, separately for native-born males and foreign-born males who are not naturalized citizens. For native-born men, the median wage in construction was similar to the median wage outside of construction through 2006. In 2006, the median wage for native-born male construction workers was \$17.88 compared with \$17.98 for native-born male non-construction workers. But, for native-born men, the median wage in construction rose faster than in other industries as the recession took hold. Between 2006 and 2010, the median wage for native-born men in construction grew by 7.6%, to \$19.24, compared with 0.3% growth to \$18.03 for native-born men outside of construction.



**FIGURE G**

**Real median wages, for men in and out of construction, by nativity, 2000–10**



**NOTE:** Shaded areas denote recessions.

**SOURCES:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

For male foreign-born non-citizens, the median wage in construction was similar to that outside of construction throughout the 2000s, and foreign-born non-citizens in construction did not see substantial wage growth as the recession took hold; their median real wage was \$12.41 in 2006, and had declined 3.1% to \$12.04 by 2010. For foreign-born non-citizens outside of construction, the median real wage was \$12.16 in 2006, and declined 0.7% to \$12.08 by 2010.

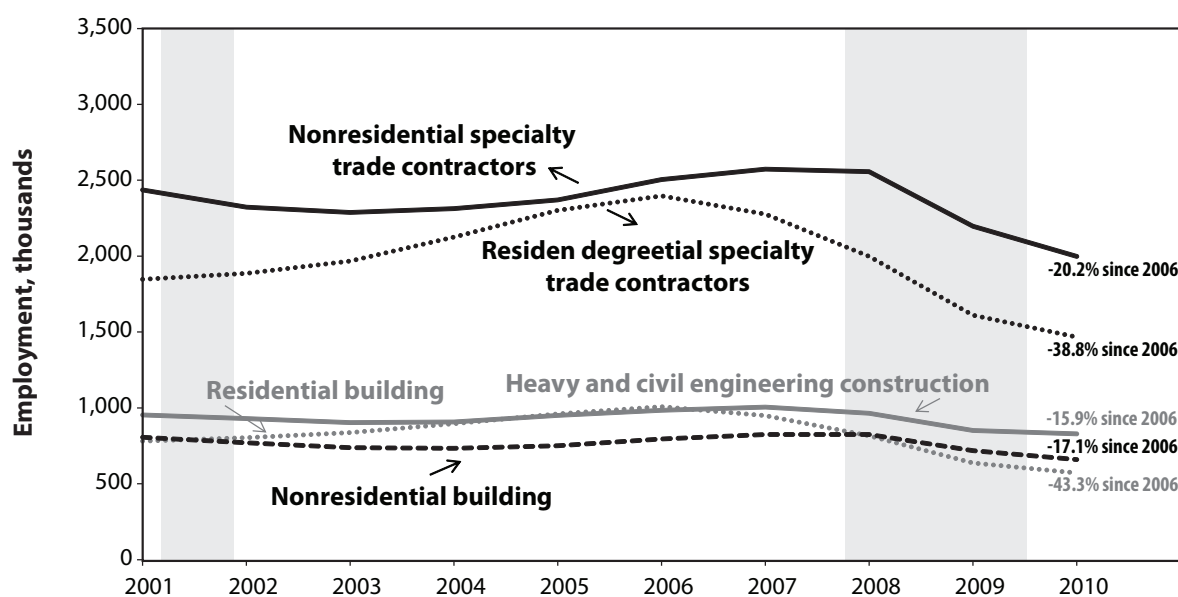
**Greater losses in residential construction help explain wage trends**

These wage trends raise at least two puzzles: 1) why the wages for native-born males in construction rose more than wages for native-born males outside of construction over the recession, despite much more substantial job loss in the construction industry, and 2) why the wages of foreign-born non-citizen males in construction are so much lower than wages of native-born men in construction.

A data source that can help solve these puzzles is the establishment payroll survey, formally called the Current Employment Statistics (CES) survey. Unlike the Current Population Survey (CPS), used thus far in the paper, the CES has a detailed breakdown of subsectors within construction, including residential construction of buildings (e.g., single family and multifamily dwelling general contractors), nonresidential construction of buildings (e.g., industrial and commercial building general contractors), heavy and civil engineering construction (e.g., water and sewer systems; oil and gas pipelines; power and communications systems; and highway, street, and bridge construction), and both residential and nonresidential specialty trade contractors (e.g., carpentry, roofing, siding, drywall, painting, plumbing, flooring, and electrical work).

**FIGURE H**

**Construction employment by subsector, 2001–10**



**NOTE:** Shaded areas denote recessions.

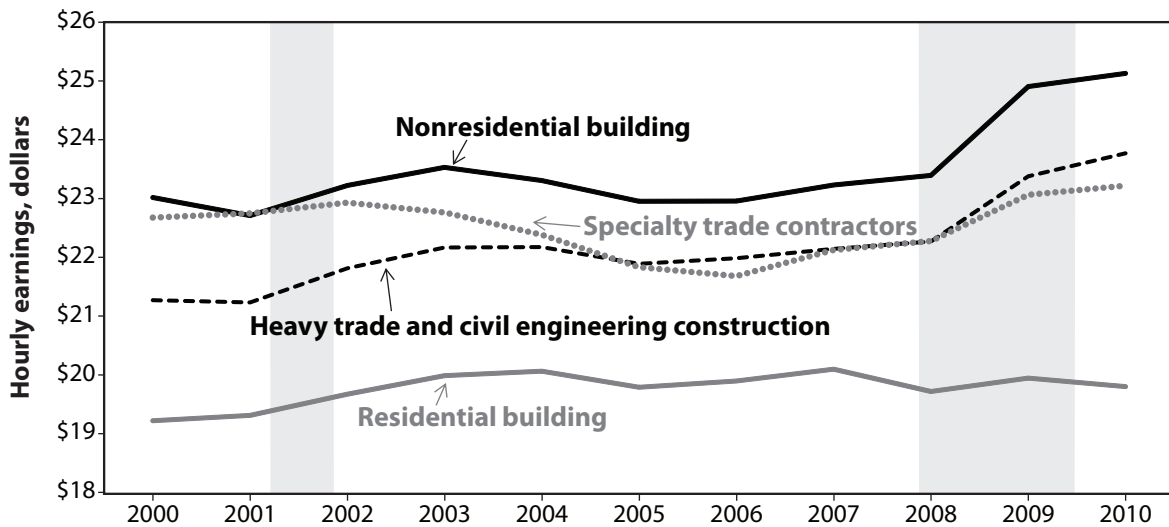
**SOURCES:** EPI analysis of Bureau of Labor Statistics Current Establishment Survey data.

**Figure H** shows that while all types of construction contracted significantly after the start of Great Recession, residential construction was hit particularly hard. Employment in residential construction declined 43.3% from construction’s peak in 2006 to 2010, while employment in residential specialty trade contracting declined by 38.8% over the same period. By comparison, employment in nonresidential construction over this period declined 17.1%, employment in nonresidential specialty trade contracting declined 20.2%, and employment in heavy and civil engineering construction declined by 15.9%.

Because of these differences in employment declines, the employment distribution among subsectors in construction changed. The share of construction workers in residential construction—either building or specialty trades—dropped from 44.3% in 2006 to 36.9% in 2010; during the same period the share of workers in nonresidential construction increased from 42.9% to 48.1% and the share of workers in heavy and civil engineering increased from 12.8% to 15.0%. Construction jobs outside of residential construction didn’t see steeper declines in part because the infrastructure projects funded by the American Recovery and Reinvestment Act of 2009 created and saved construction jobs, particularly in heavy and civil engineering construction through highway infrastructure investments.

**FIGURE I**

**Wages in construction sectors, 2001–10**



**NOTE:** Shaded areas denote recessions.

**SOURCES:** EPI analysis of Bureau of Labor Statistics Current Employment Statistics data. Wages are for construction workers only (i.e., data exclude workers not directly involved in production)

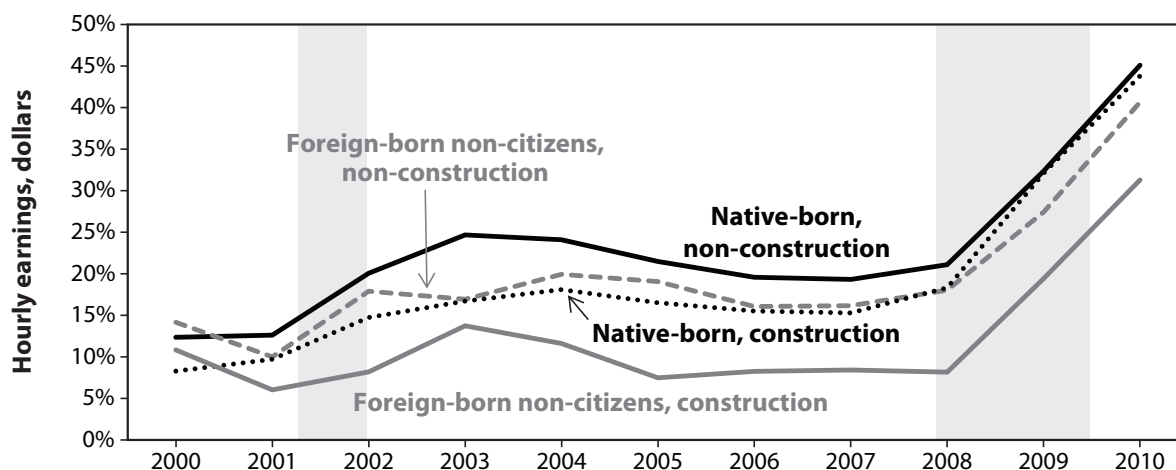
The changing composition of construction employment matters to overall wages in construction because wages vary substantially in the different subsectors. **Figure I** shows real average wages of construction workers from 2000 to 2010 in residential building, nonresidential building, heavy and civil engineering construction, and specialty trade contractors (residential and nonresidential combined, which is all that is available). In 2006, the real average wage in nonresidential building was \$22.97, about 15% higher than the \$19.90 real average wage in nonresidential building. Furthermore, from 2006 to 2010, the real wage in nonresidential building increased by \$2.17 to \$25.13, while the real wage in residential building changed little, falling 10 cents to \$19.80. The compositional shift away from lower-paying residential construction towards higher-paying nonresidential and heavy and civil engineering construction would mechanically raise the average wage in construction. This helps explain the increase in construction wages between 2007 and 2009 depicted in Figure G.

To some extent, wages of foreign-born non-citizen males in construction are so much lower than native-born males in construction because immigrants are much more concentrated in the lower-paying residential subsector. The fact that immigrants are more concentrated in residential construction is due in part to the fact that entry into the residential construction industry is easier, and highly specialized skills and certifications are somewhat less critical (Belman 2009).

The immigrant concentration in residential construction—which saw larger employment losses than other sectors within construction when the housing bubble burst—also helps explain why construction employment fell much more sharply for foreign-born non-citizen males, than native-born males shown in Figure D.

FIGURE J

Share of unemployed males who have been jobless for six months or more, by category, 2000–10



NOTE: Shaded areas denote recessions.

SOURCES: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

## Construction workers are *not* disproportionately boosting the rolls of the unemployed

Are unemployed construction workers any more likely than unemployed workers in other sectors to remain unemployed for long periods? **Figure J** depicts, from 2000 to 2010, the share of the unemployed male workers in this paper’s four categories of interest who have been unemployed for more than six months (see **Appendix Table A4** for complete data, including all gender and citizenship breakdowns).

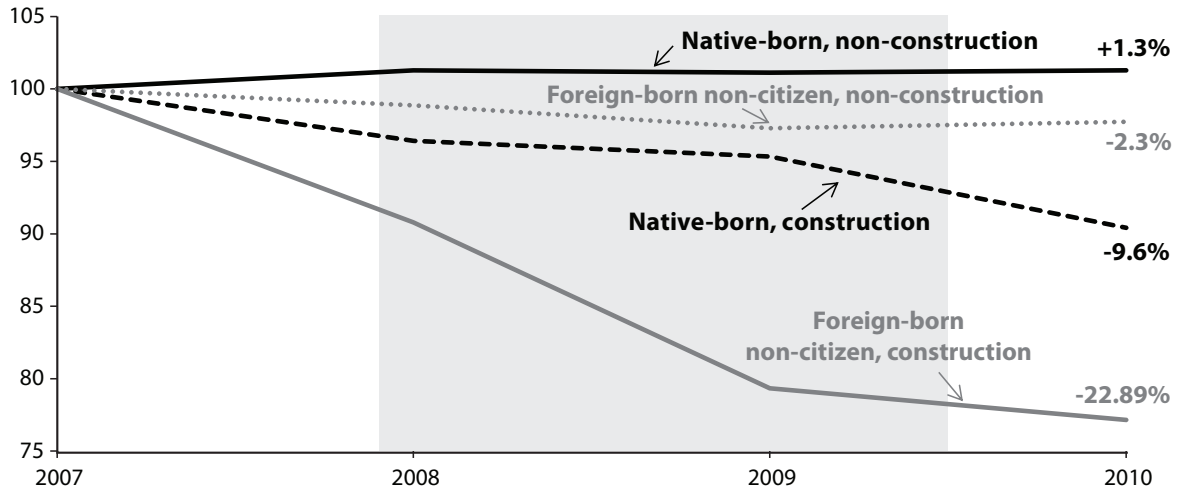
Interestingly, despite facing a much greater loss of jobs, foreign-born non-citizen males in construction are less likely to get stuck in unemployment for long periods. This may be either because foreign-born non-citizen construction workers who have been laid off are more likely to drop out of the labor force, perhaps leaving the country entirely, or because they have an easier time finding new jobs, possibly in other industries. We investigate these possibilities in turn.

**Figure K** shows the percentage change in the labor force (which includes both employed and unemployed workers) over the Great Recession for the four groups under analysis (see **Appendix Table A5** for complete data, including all gender and citizenship breakdowns). Construction workers saw particularly large labor force declines between 2007 and 2010. Native-born males in construction saw a decline of 9.6%, compared with a 1.3% increase for native-born males outside of construction. For foreign-born non-citizen males in construction, the labor force decline was a much larger 22.8%, whereas the labor force of male foreign-born non-citizens outside of construction fell only 2.3%.

Comparing **Figures K and J**, we see that the groups with the largest declines in the labor force also had lower shares of unemployed workers remaining unemployed for long periods, suggesting that unemployed construction workers (in particular those who are foreign-born non-citizens) are more likely than other unemployed workers to drop out of their industry labor force, perhaps leaving the country entirely, or finding work in another industry.

**FIGURE K**

**Change in size of male labor force in and outside of construction, by nativity, indexed so 2007=100**

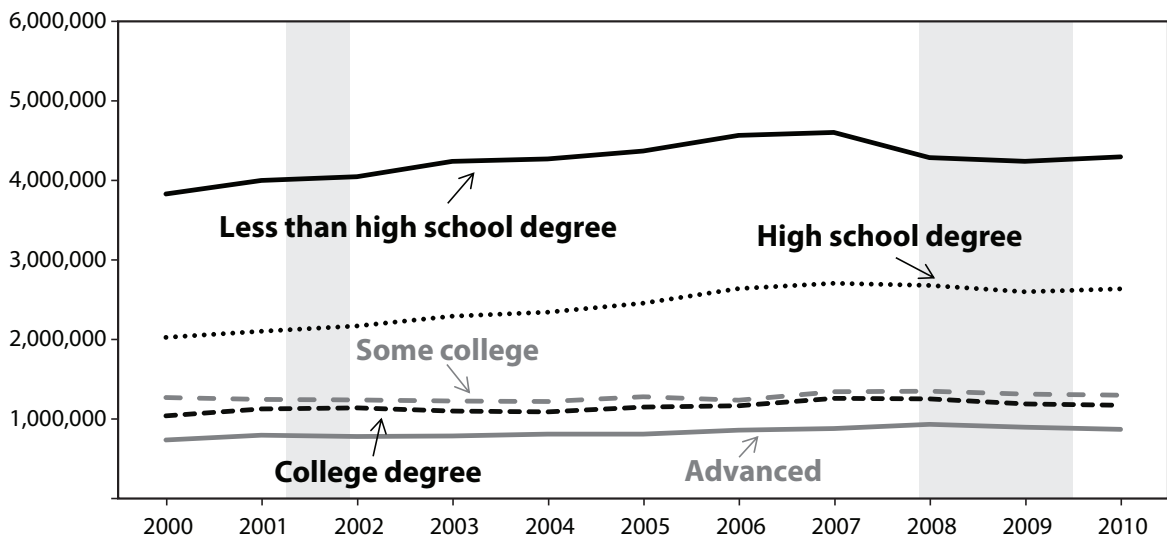


**NOTE:** Shaded area denote recession.

**SOURCES:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

**FIGURE L**

**Population of foreign-born non-naturalized males age 16 and older, by education level, 2000-10**



**NOTE:** Shaded areas denote recessions.

**SOURCES:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

# Evidence is strong that many displaced foreign-born construction workers left the country

To assess the extent to which foreign-born non-naturalized construction workers leave the country after losing work, we look at population changes for various demographic groups of workers. This is the best, albeit limited approach, since we don't have population counts by industry because people out of the labor force are not in any industry. We do, however, have population counts by education level.

Between 2007 and 2010, the population of foreign-born non-naturalized males age 16 and older dropped by over half a million people, or 4.8%. **Figure L** shows population changes over time for foreign-born non-naturalized males, by education level (see **Appendix Table A6** for complete data, including all gender and citizenship breakdowns). From 2007 to 2010, the segment of this population with less than a high school degree—the group most likely to be in the construction industry<sup>2</sup>—declined by more than 300,000, or 6.7%. This suggests that a sizeable portion of the decline in the labor force of foreign-born non-naturalized male construction workers was likely due to net migration out of the country.

The Census Bureau's 2010 Displaced Workers Survey (DWS) offers another angle on the trend. As it does every two years, in January 2010, the Bureau of Labor Statistics conducted a special supplementary survey to the CPS called the Displaced Workers Survey. This supplement documents the labor market outcomes of workers age 20 or older who sometime between 2007 and 2009 lost or left a job that they had held for three or more years because their plant or company closed or moved, there wasn't enough work for them, or their job was abolished.

While construction workers may be less likely than workers in other industries to be employed in the same job for three years, analysis of the DWS can nevertheless shed light on how long-tenured construction workers have fared after they are displaced. Unfortunately, the sample size of foreign-born displaced construction workers in the DWS is small (there are only 61) so the potential analyses are limited and we cannot parse outcomes by citizenship and gender. Nevertheless, the DWS dataset—downloadable in a user-friendly format from the Center for Economic and Policy Research (CEPR 2010) provided some useful information for this analysis.

**Table 2** shows that foreign-born workers made up 36% of the decline in construction jobs between 2007 and 2009. However, at the time of the DWS interview in January 2010, only 21.5% of workers displaced from construction jobs between 2007 and 2009 were foreign born. This difference is likely in part because foreign-born construction workers are somewhat less likely to have long-held the job they lost than their native-born counterparts. (However, this tendency does not appear for non-construction jobs: Foreign-born workers made

**TABLE 2**

**Foreign- and native-born share of construction jobs lost and workers displaced between 2007 and 2009**

Nativity	Share of construction jobs lost	Share of construction workers displaced	Share of non-construction jobs lost	Share of non-construction workers displaced
<i>Foreign-born</i>	36.0%	21.5%	14.5%	15.2%
<i>Native-born</i>	64.0	78.5	85.5	84.8
<i>All</i>	100.0	100.0	100.0	100.0

**SOURCE:** Calculations of share of jobs lost comes from EPI analysis of Bureau of Labor Statistics Current Population Survey data; calculations of share of workers displaced comes from EPI analysis of the BLS Displaced Worker Survey data (CEPR 2011).

up 14.5% of the decline in non-construction jobs between 2007 and 2009, and in January 2010, 15.2% of workers displaced from non-construction jobs between 2007 and 2009 were foreign born, a rough match.) It is also likely that there is a difference between the foreign-born share of lost construction jobs and the foreign-born share of displaced construction workers in the DWS in large part because a sizeable group of displaced foreign-born construction workers *left the country*<sup>3</sup> and were therefore not represented in the DWS.

## Labor market outcomes of displaced construction workers

**Table 3** looks at differences in labor market outcomes for displaced workers who stayed in the country by nativity and industry. Displaced foreign-born construction workers who did not leave the country were somewhat more likely at the time of the interview to be re-employed than displaced foreign-born non-construction workers who did not leave the country (49.4% compared with 44.4%). Among native-born workers, there was not a large difference: 48.9% of displaced native-born construction workers were re-employed, compared with 49.7% of displaced native-born non-construction workers.<sup>4</sup>

Displaced foreign-born construction workers were similarly likely to be unemployed (40.6%) as both displaced foreign-born non-construction workers (40.8%), and displaced native-born construction workers (39.4%). Displaced foreign-born construction workers in the DWS were less likely to be out of the labor force than displaced foreign-born non-construction workers, suggesting that the larger labor force decline of construction workers relative to other workers shown in Figure K has more to do with displaced foreign-born construction workers leaving the country, or finding new jobs in other industries, than with dropping out of the labor force but staying in the United States.

Table 3 sheds light on the likelihood these workers found a job in another industry—of displaced foreign-born construction workers who found a new job in the United States, 43.5% of them were re-employed outside of the construction industry. Re-employment outside of construction was even higher among displaced native-born construction workers who found a new job—57.7%. Finally, workers who were displaced and re-employed typically took a pay cut. For displaced foreign-born construction workers, the typical change in pay from their lost job to their new job was -6.2%, similar to that of displaced foreign-born non-construction workers (-6.6%), and slightly higher than displaced native-born construction workers (-4.3%).

**TABLE 3**

### Labor market outcomes as of January 2010 for workers displaced from 2007–09 who stayed in the country

	Labor market status in Jan. 2010			Industry mix of those employed		Median change in weekly pay*
	Employed	Unemployed	Not in labor force	Construction	Non-construction	
<b>Foreign-born</b>						
Construction	49.4%	40.6%	10.0%	56.5%	43.5%	-6.2%
Non-construction	44.4	40.8	14.8	2.5	97.5	-6.6
<b>Native-born</b>						
Construction	48.9%	39.4%	11.8%	42.3%	57.7%	-4.3%
Non-construction	49.7	34.5	15.8	3.2	96.8	-9.1

\* From lost job to current job, for those employed full time.

**SOURCE:** EPI analysis of the Bureau of Labor Statistics Displaced Worker Survey data (CEPR 2011).

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## Conclusion

This paper finds that the rise and collapse of the housing bubble was reflected in the dramatic growth and decline of construction employment. The snapshot of the labor force outcomes of both construction and non-construction workers by nativity shows that non-citizen, foreign-born construction workers lost the greatest percentage of jobs in the Great Recession. As the housing bubble inflated, they gained hundreds of thousands of construction jobs, especially in residential housing, where wages are lower than in other areas of construction activity. When the bubble burst, they suffered disproportionately. Moreover, their lower rate of long-term unemployment during this downturn suggests that they did not take extended unemployment insurance benefits to the same extent as other workers. According to the evidence, this is at least partly due to the fact that foreign-born non-citizen construction workers who have gotten laid off are more likely to drop out of the U.S. labor force instead of remaining unemployed for long periods. Indeed, many of them appear to have left the United States when employment shrank.



**TABLE A 1**

**Construction employment statistics, by race and ethnicity, citizenship, and gender, 2006**

<b>Gender</b>	<b>Citizenship status</b>	<b>Race/ethnicity</b>	<b>Share of group working in construction</b>	<b>Share of construction employment held by group</b>
<b>Male</b>	<i>All</i>	Non-Hispanic white	12.9%	59.1%
		Non-Hispanic black	7.8	4.7
		Hispanic any race	23.7	24.0
		Other	6.6	2.7
	<i>Native</i>	Non-Hispanic white	12.9	56.3
		Non-Hispanic black	7.8	4.1
		Hispanic any race	13.8	5.4
		Other	9.9	1.7
	<i>Foreign-born citizen</i>	Non-Hispanic white	10.6	1.1
		Non-Hispanic black	6.7	0.2
		Hispanic any race	16.5	2.3
		Other	4.0	0.5
	<i>Foreign-born non-citizen</i>	Non-Hispanic white	16.7	1.7
		Non-Hispanic black	8.5	0.3
		Hispanic any race	33.8	16.3
		Other	4.2	0.5
<b>Female</b>	<i>All</i>	Non-Hispanic white	2.0%	7.7%
		Non-Hispanic black	0.6	0.4
		Hispanic any race	3.2	1.1
		other	2.8	0.4
	<i>Native</i>	Non-Hispanic white	2.0	7.5
		Non-Hispanic black	0.5	0.3
		Hispanic any race	1.5	0.5
		Other	1.6	0.3
	<i>Foreign-born citizen</i>	Non-Hispanic white	1.5	0.1
		Non-Hispanic black	0.7	0.0
		Hispanic any race	1.0	0.1
		Other	0.8	0.1
	<i>Foreign-born non-citizen</i>	Non-Hispanic white	1.6	0.1
		non-Hispanic black	0.2	0.0
		Hispanic any race	2.2	0.5
		Other	1.1	0.1

**SOURCE:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

TABLE A 2

## Employment by nativity, industry, and gender; 2000–10 (indexed to 2007=100)

Gender	Citizenship	Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	Native	All	96.9	96.1	95.5	95.5	96.7	98.3	99.6	100.0	99.3	94.6	93.9
		Construction	93.1	93.8	91.6	92.0	96.4	97.7	99.6	100.0	93.2	84.7	78.4
		Non-construction	97.5	96.4	96.1	96.0	96.8	98.3	99.6	100.0	100.1	96.0	96.0
	Foreign-born citizen	All	74.8	78.7	80.3	85.0	89.2	90.7	95.8	100.0	103.1	101.6	105.1
		Construction	56.8	61.2	67.9	71.0	72.4	72.0	85.6	100.0	96.2	87.7	85.1
		Non-construction	77.1	80.9	81.9	86.8	91.4	93.1	97.1	100.0	104.0	103.4	107.7
	Foreign-born non-citizen	All	80.7	83.3	83.1	85.6	87.8	92.1	96.9	100.0	94.8	86.5	86.5
		Construction	53.0	58.9	58.7	64.9	74.4	87.4	99.7	100.0	87.8	69.9	69.9
		Non-construction	89.9	91.5	91.2	92.5	92.3	93.7	95.9	100.0	97.1	92.0	92.0
Female	Native	All	96.0	95.8	95.4	96.3	96.6	97.9	99.0	100.0	100.1	97.7	96.5
		Construction	96.4	95.2	92.4	89.7	94.0	96.3	100.2	100.0	97.2	84.3	73.3
		Non-construction	95.9	95.8	95.4	96.4	96.7	97.9	98.9	100.0	100.2	97.9	97.0
	Foreign-born citizen	All	74.5	79.1	79.8	82.8	86.4	90.6	95.5	100.0	103.0	105.1	107.7
		Construction	57.0	74.9	76.5	65.8	84.0	79.7	88.8	100.0	86.7	77.5	72.2
		Non-construction	74.7	79.2	79.9	83.0	86.5	90.7	95.6	100.0	103.1	105.4	108.1
	Foreign-born non-citizen	All	84.8	85.6	87.1	90.3	89.4	92.1	98.7	100.0	97.2	90.3	91.7
		Construction	52.8	75.7	59.4	64.1	86.0	111.3	123.2	100.0	77.5	54.1	53.9
		Non-construction	85.2	85.8	87.5	90.7	89.4	91.8	98.4	100.0	97.5	90.8	92.2

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

TABLE A 3

## Real median wages in and outside construction, 2000–10

Gender	Citizenship	Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Male	Native	All	17.93	18.24	18.21	18.11	18.26	17.89	17.97	18.06	18.02	18.51	18.15
		Construction	17.77	18.28	18.14	18.21	17.98	17.76	17.88	18.33	18.78	19.49	19.24
		Non-construction	17.96	18.23	18.22	18.10	18.28	17.91	17.98	18.03	17.90	18.40	18.03
	Foreign-born citizen	All	17.94	18.07	18.26	18.34	18.47	18.44	18.57	18.63	18.45	19.11	18.08
		Construction	18.30	18.47	16.85	18.61	17.31	16.56	16.27	17.24	18.32	19.03	18.08
		Non-construction	17.92	18.02	18.34	18.28	18.60	18.81	18.90	18.78	18.48	19.12	18.08
	Foreign-born non-citizen	All	11.81	12.20	12.19	12.03	11.75	11.98	12.23	12.55	12.45	12.36	12.06
		Construction	12.70	12.39	12.35	12.14	11.83	12.36	12.41	12.67	12.64	12.94	12.03
		Non-construction	11.54	12.15	12.13	11.98	11.72	11.69	12.16	12.50	12.39	12.25	12.08
Female	Native	All	13.66	13.92	14.38	14.39	14.39	14.24	14.27	14.42	14.48	14.82	14.76
		Construction	15.51	14.84	15.35	15.60	15.44	15.76	15.77	15.90	16.00	16.80	16.50
		Non-construction	13.63	13.90	14.36	14.38	14.38	14.21	14.24	14.37	14.44	14.78	14.74
	Foreign-born citizen	All	14.30	14.64	14.59	14.75	14.97	14.75	15.38	14.95	15.11	15.30	15.02
		Construction	17.05	15.65	18.13	19.41	19.41	17.54	16.56	19.77	18.08	15.80	20.45
		Non-construction	14.28	14.61	14.58	14.68	14.93	14.72	15.37	14.90	15.10	15.30	15.00
	Foreign-born non-citizen	All	10.26	10.48	10.61	10.76	10.53	10.72	10.65	10.45	10.34	10.33	10.19
		Construction	12.74	11.21	11.46	12.00	14.03	10.84	13.50	13.34	12.91	14.34	13.27
		Non-construction	10.24	10.47	10.58	10.75	10.50	10.66	10.61	10.42	10.33	10.32	10.18

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

TABLE A 4

**Share of the unemployed who have been jobless  
for six months or more, 2000–10**

Gender	Citizenship	Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Male	Native	All	11.6%	12.1%	19.1%	23.4%	23.0%	20.6%	18.9%	18.6%	20.5%	32.3%	44.8%	
		Construction	8.3	9.7	14.8	16.7	18.1	16.5%	15.5	15.3	18.3	32.1	43.8	
		Non-construction	12.4	12.6	20.1	24.7	24.1	21.5%	19.6	19.3	21.1	32.4	45.1	
	Foreign-born citizen	All	20.1%	17.3%	21.5%	33.7%	33.3%	30.5%	26.8%	21.2%	24.9%	36.6%	52.4%	
		Construction	13.0	21.3	14.6	22.3	22.6	12.3	11.8	19.1	12.8	31.6	44.4	
		Non-construction	21.1	16.8	22.3	35.0	34.6	32.8	29.4	21.6	28.0	38.1	54.6	
	Foreign-born non-citizen	All	13.5%	9.4%	15.9%	16.3%	18.1%	16.2%	13.8%	13.6%	14.8%	24.7%	37.9%	
		Construction	10.8	6.0	8.2	13.7	11.6	7.5	8.3	8.4	8.2	19.4	31.3	
		Non-construction	14.2	10.0	17.9	17.0	20.0	19.1	16.1	16.2	18.0	27.4	40.6	
	Female	Native	All	10.0%	11.3%	17.1%	20.1%	20.0%	18.1%	16.2%	16.2%	18.6%	30.8%	41.1%
			Construction	12.6	8.2	12.6	19.7	19.0	24.0	14.6	18.9	22.0	33.4	47.6
			Non-construction	9.9	11.4	17.2	20.1	20.1	17.9	16.3	16.1	18.6	30.7	40.9
Foreign-born citizen		All	16.1%	14.5%	24.8%	30.7%	26.1%	25.0%	21.1%	21.3%	23.6%	36.4%	49.4%	
		Construction	0.0	2.5	4.3	20.4	11.6	9.4	0.0	6.7	14.3	34.6	40.9	
		Non-construction	16.3	14.6	25.0	30.8	26.2	25.2	21.3	21.5	23.7	36.4	49.6	
Foreign-born non-citizen		All	13.8%	11.4%	18.3%	20.6%	21.4%	18.8%	16.7%	20.5%	22.5%	32.0%	39.7%	
		Construction	14.1	10.7	18.2	9.9	17.7	5.3	14.5	7.3	4.4	26.9	39.8	
		Non-construction	13.8	11.5	18.3	20.7	21.4	18.9	16.7	20.8	22.8	32.1	39.7	

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

**TABLE A 5**

**Size of labor force by nativity, industry, and gender,  
2000–10 (indexed to 2007=100)**

Gender	Citizenship	Industry	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Male</b>	<i>Native</i>	All	96.0	96.1	96.6	97.0	97.6	98.7	99.6	100.0	100.7	100.4	99.9
		Construction	91.7	93.3	93.1	93.5	97.4	98.1	99.2	100.0	96.4	95.3	90.4
		Non-construction	96.6	96.5	97.2	97.4	97.7	98.8	99.6	100.0	101.3	101.1	101.3
	<i>Foreign-born citizen</i>	All	74.4	78.8	81.7	86.9	89.8	91.2	95.0	100.0	104.3	107.5	111.5
		Construction	55.8	60.8	67.7	71.4	71.7	71.5	84.0	100.0	99.2	100.8	98.5
		Non-construction	76.9	81.2	83.6	88.9	92.2	93.8	96.5	100.0	105.0	108.4	113.2
	<i>Foreign-born non-citizen</i>	All	80.5	84.0	84.7	87.5	88.8	91.9	96.5	100.0	96.8	92.8	92.5
		Construction	52.5	58.3	59.6	66.1	74.4	86.0	98.4	100.0	90.8	79.3	77.2
		Non-construction	90.0	92.7	93.2	94.8	93.7	93.9	95.8	100.0	98.9	97.3	97.7
<b>Female</b>	<i>Native</i>	All	95.5	95.8	96.3	97.3	97.4	98.4	99.1	100.0	101.0	101.3	100.7
		Construction	94.7	93.6	92.8	89.7	94.5	96.1	99.4	100.0	97.5	90.3	80.3
		Non-construction	95.5	95.8	96.4	97.4	97.5	98.5	99.1	100.0	101.1	101.5	101.1
	<i>Foreign-born citizen</i>	All	74.6	79.9	81.7	84.9	87.7	91.2	95.6	100.0	104.2	109.4	113.3
		Construction	56.8	74.2	76.9	64.9	85.0	81.9	88.4	100.0	87.8	84.6	83.3
		Non-construction	74.8	79.9	81.8	85.1	87.8	91.3	95.7	100.0	104.4	109.7	113.6
	<i>Foreign-born non-citizen</i>	All	84.9	87.3	89.5	92.8	91.1	93.0	98.7	100.0	99.0	95.9	97.3
		Construction	49.9	75.1	58.2	61.4	80.4	103.9	116.6	100.0	78.6	62.1	60.3
		Non-construction	85.4	87.5	89.9	93.2	91.3	92.9	98.5	100.0	99.3	96.3	97.8

**SOURCE:** EPI analysis of Bureau of Labor Statistics Current Population Survey data.

TABLE A 6

**Number of persons age 16 and older having attained various education levels,  
by gender and citizenship, in millions, 2000–10**

Gender	Citizenship	Education level	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Male	Native-born	All	87.9	88.5	89.5	90.8	91.8	92.8	93.6	94.5	95.4	96.5	97.2	
		Less than high school	15.8	15.7	15.7	15.6	15.4	15.5	15.2	14.7	14.5	14.5	14.2	
		High school	28.0	28.2	28.3	28.5	29.0	29.4	29.7	29.8	29.9	30.3	30.8	
		Some college	22.9	23.2	23.5	23.8	24.1	24.6	24.9	25.4	25.9	26.3	26.5	
		College	14.0	14.2	14.5	15.1	15.4	15.3	15.7	16.3	16.7	16.7	16.9	
		Advanced	7.2	7.3	7.5	7.7	7.9	8.0	8.2	8.4	8.5	8.7	8.7	
	Foreign-born citizen	All	5.2	5.5	5.7	6.0	6.2	6.3	6.5	6.9	7.2	7.4	7.7	
		Less than high school	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.5	
		High school	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	1.8	1.9	
		Some college	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.4	1.5	1.5	1.5	
		College	1.0	1.1	1.2	1.2	1.2	1.2	1.4	1.4	1.5	1.6	1.6	
		Advanced	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.1	
	Foreign-born non-citizen	All	8.9	9.3	9.4	9.6	9.7	10.1	10.5	10.8	10.5	10.2	10.3	
		Less than high school	3.8	4.0	4.0	4.2	4.3	4.4	4.6	4.6	4.3	4.2	4.3	
		High school	2.0	2.1	2.2	2.3	2.3	2.5	2.6	2.7	2.7	2.6	2.6	
		Some college	1.3	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.4	1.3	1.3	
		College	1.0	1.1	1.1	1.1	1.1	1.1	1.2	1.3	1.3	1.2	1.2	
		Advanced	0.7	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	
	Female	Native-born	All	96.5	97.2	97.9	99.1	99.8	100.7	101.5	102.3	103.0	104.1	104.7
			Less than high school	16.5	16.3	16.0	15.8	15.5	15.5	15.3	14.7	14.3	14.2	13.9
			High school	32.4	32.2	32.2	32.1	32.0	31.9	31.7	31.9	31.4	31.5	31.4
Some college			27.1	27.7	27.9	28.4	29.1	29.5	29.9	30.1	30.9	31.4	31.6	
College			14.5	14.7	15.3	15.8	16.0	16.3	16.8	17.6	17.9	18.2	18.6	
Advanced			6.0	6.3	6.6	7.0	7.2	7.5	7.8	8.1	8.5	8.8	9.1	
Foreign-born citizen		All	5.8	6.2	6.4	6.6	6.9	7.1	7.3	7.7	8.1	8.4	8.6	
		Less than high school	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.7	1.7	1.7	
		High school	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.1	2.2	2.2	2.2	
		Some college	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.7	1.8	1.8	1.9	
		College	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	
		Advanced	0.5	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.8	0.9	0.9	
Foreign-born non-citizen		All	8.2	8.4	8.6	9.0	9.0	9.2	9.4	9.6	9.5	9.2	9.3	
		Less than high school	3.4	3.4	3.5	3.7	3.6	3.7	3.7	3.7	3.7	3.6	3.6	
		High school	2.0	2.0	2.1	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.4	
		Some college	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	
		College	1.1	1.2	1.2	1.3	1.2	1.3	1.3	1.4	1.4	1.3	1.3	
		Advanced	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	

SOURCE: EPI analysis of Bureau of Labor Statistics Current Population Survey data.

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## Endnotes

1. To the extent that construction workers are more likely than workers outside construction to be *self-employed* and face job loss or underemployment during the downturn, that will not be captured here, since these data consider payroll employment only.
2. In 2006, the peak of the housing bubble, 36.1% of employed foreign-born non-citizen males with less than a high school degree were employed in construction. In comparison, 26.5% of employed foreign-born non-citizen males with exactly a high school degree were employed in construction, 17.3% of employed foreign-born non-citizen males with some college but no college degree were employed in construction, and 7.7% of employed foreign-born non-citizen males with a college degree or more were employed in construction.
3. Notably, using CPS data we are unable to distinguish between authorized and unauthorized foreign-born workers, though presumably a significant portion of those workers who left the country were unauthorized workers. See Hoefer et al. (2011) and Passel (2011) for discussions of the decline in the unauthorized immigrant population in the United States during the downturn.
4. See Schmitt and Warner (2011) for an excellent discussion of how the comparable success that displaced construction workers have had in finding new work demonstrates that their skills are at least as well matched to the available jobs as displaced workers from other sectors; and how this in turn shows that displaced construction workers cannot be fueling an increase in “structural unemployment,” despite the fact that construction suffered a disproportionate job loss.

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