

Immigrant Workers in the U.S. Labor Force

By Audrey Singer, March 15, 2012

Debates about illegal immigration, border security, skill levels of workers, unemployment, job growth and competition, and entrepreneurship all rely, to some extent, on perceptions of immigrants' role in the U.S. labor market. These views are often shaped as much by politics and emotion as by facts.

To better frame these debates, this short analysis provides data on immigrants in the labor force at the current time of slowed immigration, high unemployment, and low job growth and [highlights eight industries](#) where immigrants are especially vital.

How large a share of the labor force are they and how does that vary by particular industry? How do immigrants compare to native-born workers in their educational attainment and occupational profiles?

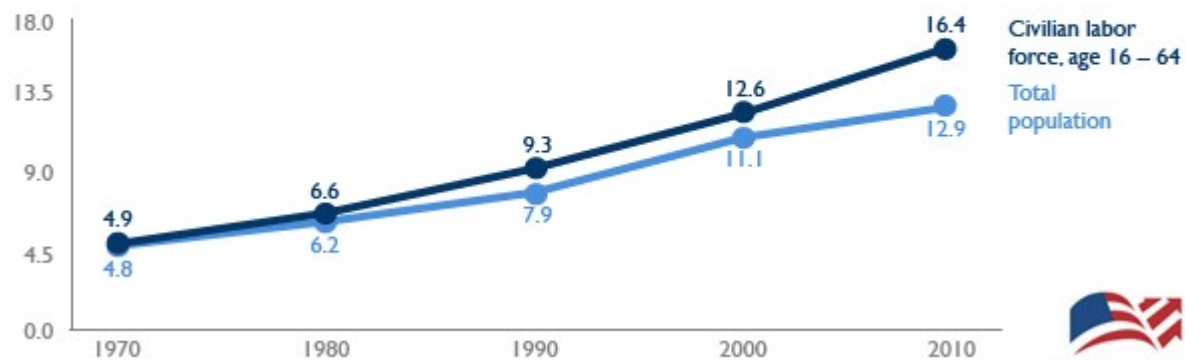
The answers matter because our economy is dependent on immigrant labor now and for the future. The U.S. population [is aging rapidly](#) as the baby boom cohort enters old age and retirement. As a result, the labor force will increasingly depend upon immigrants and their children to replace current workers and fill new jobs. This analysis puts a spotlight on immigrant workers to examine their basic trends in the labor force and how these workers fit into specific industries and occupations of interest.

This data analysis primarily uses the 2010 Current Population Survey (CPS) to examine workers by nativity, but also uses Census data and the American Community Survey (ACS) in Figure 1. Both the CPS and ACS questionnaires identify immigrants by their birthplace, but not by their legal status. The terms foreign-born and immigrant are used interchangeably in this analysis to refer to anyone born outside the United States who was not a citizen at birth. This population includes naturalized citizens, legal permanent residents, temporary migrants (including H-1B workers and students), refugees, asylum seekers, and, to the extent to which they are counted, unauthorized immigrants.

I. Immigrants are a growing part of the labor force

Immigrants make up 13% of the population but 16% of the labor force.

Foreign-born share of total population and labor force, 1970 – 2010



Source: U.S. decennial census data, 1970-2000 and ACS 2010, accessed from IPUMS.org

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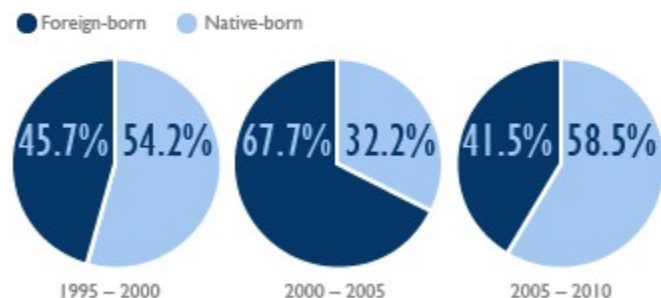


Immigrants are a growing part of the labor force (people with a job or looking for one), and in 2010 there were 23.1 million foreign-born persons in the civilian labor force, making up 16.4 percent of the total. As the foreign-born population has grown as a share of the total population, they have grown disproportionately as a share of the labor force. In 1970, immigrants made up approximately 5 percent of the population and 5 percent of the labor force. As Figure 1 shows, their growth in the labor force began to outstrip their population growth by 1990, widening the gap between the two. By 2010, immigrants were 16 percent of the labor force, but only 13 percent of the total population.

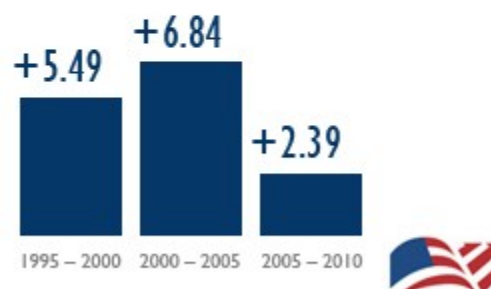
2. Immigrant share of labor force growth has slowed

In the second half of the 2000s, immigration slowed and the share of labor force growth due to immigrants dipped to 42 percent of the total.

Change in labor force by nativity and time period, 1995 – 2010



Change in foreign-born population (in millions) by time period, 1995 – 2010



Source: Current Population Survey data accessed via IPUMS.org

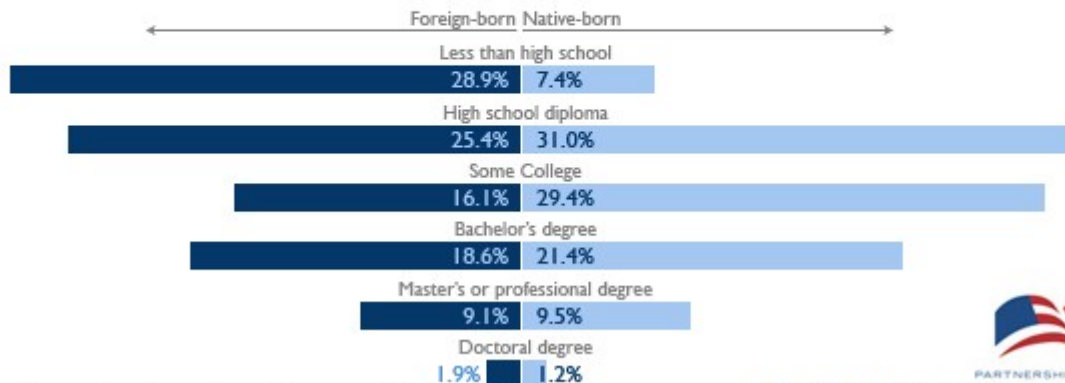
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The growth in the labor force attributable to immigrants varies in the 1995 to 2010 period. In the late 1990s, when immigration levels were quite high, immigrant workers made up 46 percent of the growth of the labor force, while native workers made up 54 percent. During the first half of the 2000s, also a period of high immigration, the immigrant contribution to the growth of the labor force was even higher, at approximately two-thirds of the total. Since then, in the second half of the 2000s, a period marked in part by the recession, immigration has slowed and the share of labor force growth due to immigrants has dipped to 42 percent of the total, closer to the level seen in the corresponding period in the 1990s. There is a strong relationship between economic growth and job growth in that immigrant newcomers are drawn to available jobs.

3. Nearly one-in-three immigrants lack a diploma

Immigrants are nearly as likely as natives to have a college degree but much more likely to lack a high school diploma.

Educational attainment by nativity, civilian population age 25 – 64, 2010



Source: Current Population Survey data accessed via IPUMS.org

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Measured side-by-side, foreign-born and native-born residents have different educational profiles. The largest difference is at the bottom of the spectrum: 29 percent of adult immigrants in the United States do not hold a high school diploma, a stark contrast to 7 percent in the U.S.-born population. (However, in [absolute terms](#), they contribute an equal number.) On the other end of the scale, native- and foreign-born adults hold bachelor's degrees at similar rates, 32 percent for those born in the United States and 30 percent for those born elsewhere. Immigrants and natives have even closer rates of graduate degree attainment, including master's, professional, and doctoral degrees: about 11 percent each. While immigrants and natives do not differ much in their shares with a high school diploma as their highest level of attainment (24 and 31 percent, respectively), 60 percent of natives are considered middle-skilled (those with a high school diploma plus those with some college experience or an associate's degree), while the share is nearly 20 percentage points lower for immigrants.

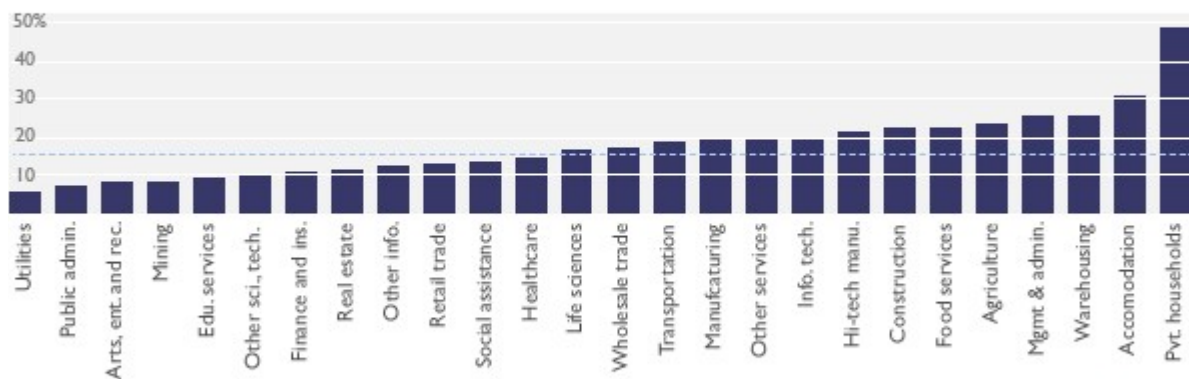
In recent years, the United States has attracted an increasing number of high-skilled immigrants, a trend bolstered by visa programs such as the H-1B, which started in the 1990s and supplies hundreds of thousands of visas a year to foreign-born workers who have at least a bachelor's degree. In addition, the number of international students has been on the rise, currently numbering almost 700,000, a near tripling in size from the 1970s. Many are able to attain permanent resident status after graduation and make their way into the U.S. labor market.

Meanwhile, lower-skilled immigrant workers are drawn to the U.S. economy by better opportunities than in their home countries. As the American population has become more educated, the demand for lower-skilled workers has been increasingly met by immigrant labor. As recently as 1994, 72 percent of employed persons without a high school diploma were U.S.-born; 16 years later they made up only 48 percent of the total.

4. Immigrants are over-represented in certain industries

Immigrants represent 15.8 percent of the civilian employed population overall, but are over-represented in high- and low-skill industries.

Percent foreign born by industry, 2010 (dashed line indicates total immigrant share of employed civilians)



Source: 2010 Current Population Survey data accessed via IPUMS.org

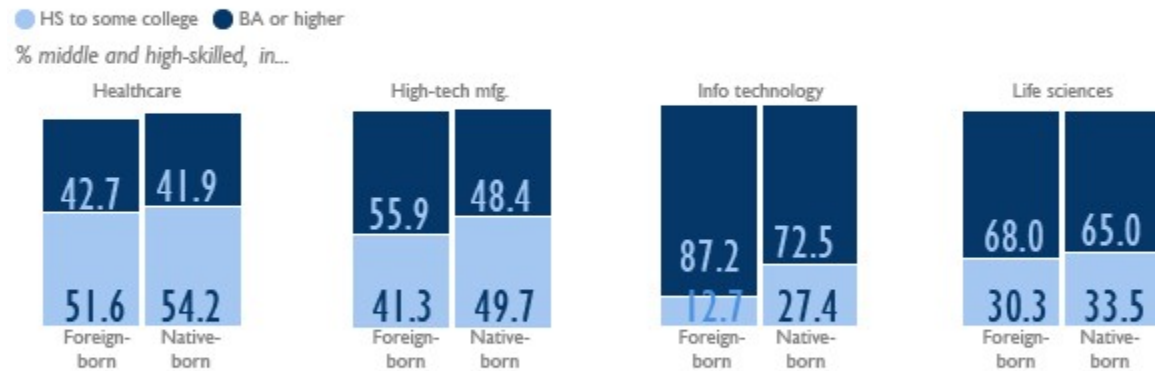


Immigrants represent 15.8 percent of the civilian employed population overall, but are over-represented in certain industries. Immigrants are a significant presence in industries that demand higher-skilled workers such as information technology and high-tech manufacturing. In both of these sectors immigrants make up 23 percent of all workers. But they also supply a large number of workers in industries with a more mixed or primarily low-skilled workforce. These industries include construction, food service, and agriculture where they represent approximately one-fifth of all workers. The highest shares of immigrant workers are found in private households (49 percent of all workers) and in the accommodation sector (31 percent).

5. In high-skill industries, immigrant education keeps pace

In some of the high-skilled industries most closely associated with immigrant workers, immigrants are more highly educated than native born.

Educational attainment among immigrants and natives in selected industries, 2010



Source: 2010 Current Population Survey data accessed via IPUMS.org



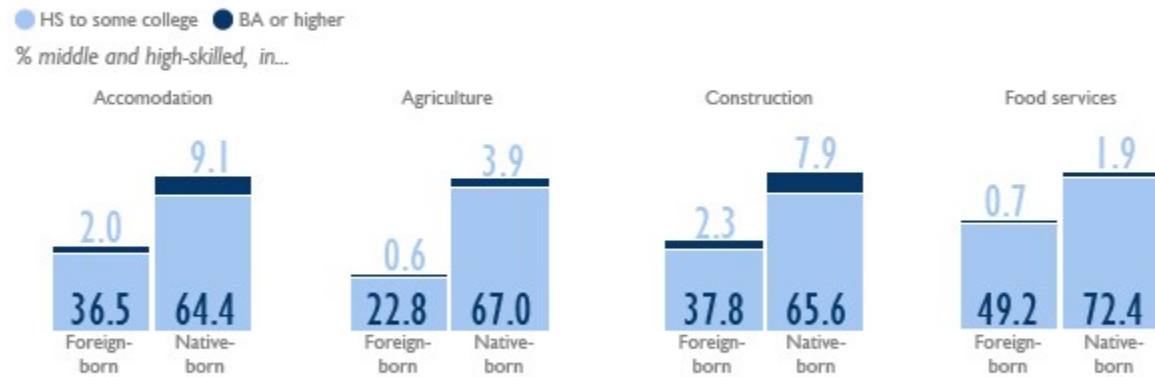
In this analysis, we designate individuals with a Bachelor's degree or more as high-skilled, those without a high school diploma as low-skilled and those with at least a high school diploma but less than a college degree as middle-skilled.

In some of the industries most closely associated with immigrant workers at the high-skilled end—healthcare, high-tech manufacturing, information technology, and life sciences industries, for example—foreign and native workers share remarkably similar educational profiles. Virtually all workers have at least a high school diploma in all of these sectors and, except for healthcare, more than half of all workers have at least a bachelor's degree. Moreover, immigrants are more likely to have a bachelor's degree or more compared with natives.

6. In low-skill industries, immigrant education lags

Among key sectors with lower-skilled workers, levels of attainment between immigrants and natives diverge.

Educational attainment among immigrants and natives in selected industries, 2010



Source: 2010 Current Population Survey data accessed via IPUMS.org

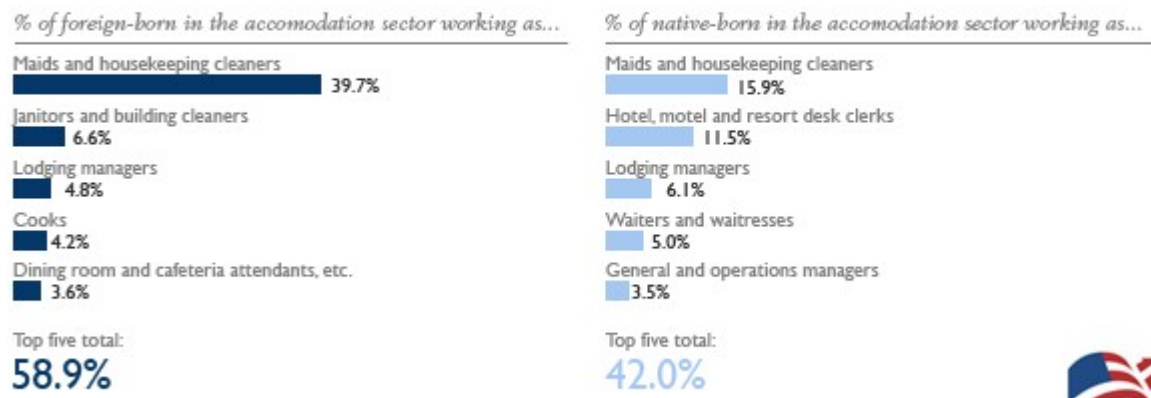


Among key sectors with lower-skilled workers, levels of attainment between immigrants and natives diverge. This is particularly true in agriculture and accommodation. While the vast majority of immigrant workers in the agriculture sector are low-skilled (77 percent), the same is true for only 29 percent of native workers. In the accommodation sector, more than half of foreign-born workers lack a high school diploma; the same is true of only one-quarter of their U.S.-born counterparts. These trends are even more striking in absolute numbers. For example, there are ten times as many high-skilled U.S.-born workers in accommodation than foreign-born workers (74,000 versus 7,300); at the same time, there are roughly equal numbers of low-skilled immigrants and natives working in accommodation.

The construction sector shows a similar disparity in educational attainment with 60 percent of immigrants at the low-skill end and the majority of native workers with at least a high school diploma. In the food service sector, half of foreign-born workers and one-quarter of U.S.-born workers lack a high school credential.

7a. Immigrant clustering in the accomodation industry

Immigrant workers are more likely to work as maids and housekeeping cleaners than the native born.



Source: 2010 Current Population Survey data accessed via IPUMS.org



Within these industries of focus—accommodations, agriculture, construction, food services, health care, high-tech manufacturing, information technology, and the life sciences—immigrants and natives often work in different kinds of occupations. Figures 7a-7h draws out just how clustered workers are within occupations by key industries. Notably across all eight sectors, immigrant workers are more concentrated in their top five occupations than are the native workers in their own top five occupations. In six sectors, more than half of all immigrant workers are concentrated in five occupations, versus just two sectors for native workers.

More importantly, immigrants and natives have different types of jobs in many sectors that set them apart from each other, while in others they share similar occupational profiles. Each of the sectors of focus has their own story to tell. (See [appendix table](#) for the top five detailed occupations in selected industries, by nativity.)

In the accommodation sector, 59 percent of immigrant workers are in the top five occupations, while the same is true for 42 percent of U.S.-born workers. In this sector, where the majority of workers are considered low- or mid-skilled, the greatest share of workers in a single occupation work as maids and housekeepers, regardless of nativity. Forty percent of immigrant workers and 16 percent of all native workers working in accommodations are maids and housekeepers, with foreign-born workers representing over half of all workers in that occupation—one of only a handful of occupations where immigrants outnumber natives. Among the largest occupations in this sector, immigrant workers generally work in “back of the house” occupations as building and housekeeping cleaners and as cooks and dining attendants. Native workers, in contrast, tend to have more “front of the house” jobs as desk clerks and managers.

7b. Immigrant clustering in the agriculture industry

Most immigrants are low-skilled farmworkers, while more than one-third of U.S.-born workers are farmers and ranchers.



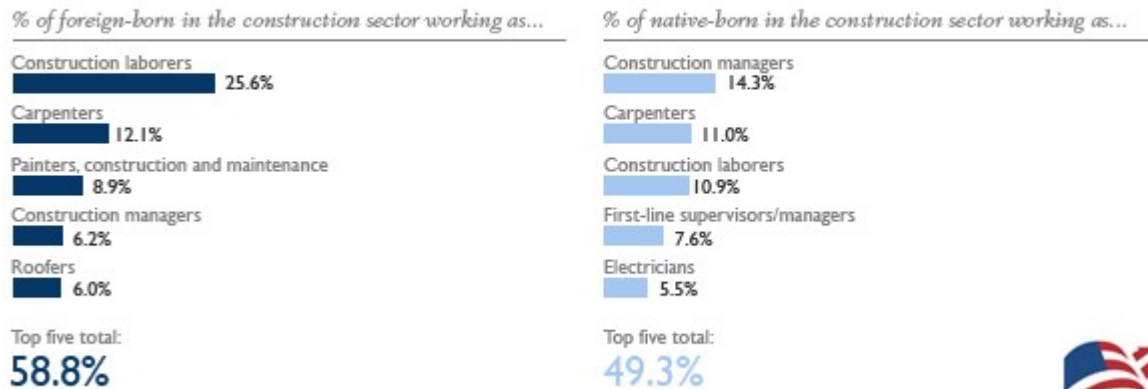
Source: 2010 Current Population Survey data accessed via IPUMS.org



The agricultural sector is the most occupationally concentrated of the eight industries of focus in this analysis. Nearly 61 percent of immigrants in the agricultural sector are classified as “miscellaneous agricultural workers, including animal breeders.” This is the second most common occupation among native workers, yielding nearly equal numbers of workers in absolute terms but representing just 20 percent of native workers in this sector. These workers require little more than on-the-job training, largely planting and harvesting crops, operating farm equipment, and raising animals. “Farmers and ranchers” also appears on the list of top five occupations for both groups. However this is the top occupation for the native-born, comprising 35 percent of all workers, in contrast with only 3 percent of foreign-born workers. Farmers and ranchers are primarily the owners and operators of farms and are mid-skilled on average. Among all farmers and ranchers in the United States, 97 percent are U.S.-born. The distributional differences in these occupations in the agricultural sector explain the major skills differential among native and foreign-born workers in this sector identified in Figure 6. While the common perception of this sector is that it is dominated by immigrant workers, this is true only at the low-skill end.

7c. Immigrant clustering in the construction industry

U.S.-born workers hold more managerial positions than the foreign born, who are more likely to be laborers.



Source: 2010 Current Population Survey data accessed via IPUMS.org

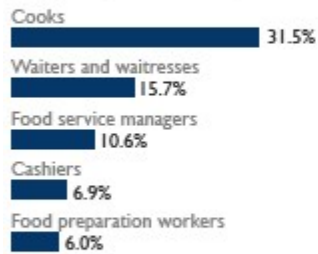


In construction, 59 percent of all immigrant workers and 49 percent of all native workers are working in the five most common occupations. Construction laborers occupy the top spot among immigrant workers (26 percent) and the third spot for native workers (11 percent). Construction managers and carpenters are also among the most common occupations for both native-born and foreign-born workers in this sector. The nearly 1 million native-born construction managers—the most common job among natives—comprise 14 percent of workers in this sector, while the 6 percent among immigrant workers amount to approximately 125,000 of these mid-skilled workers, ranking fourth. With carpenters, another mid-skilled job, there are nearly equal shares of workers in both groups (12 percent among immigrants, 11 percent among natives). Overall, U.S.-born workers in this industry hold more managerial positions, including construction managers and first-line supervisors, than the foreign born.

7d. Immigrant clustering in the food services industry

Most workers are in low-skilled jobs such as cooks, cashiers and wait staff regardless of nativity.

% of foreign-born in the food services sector working as...



Top five total:

70.7%

% of native-born in the food services sector working as...



Top five total:

64.6%

Source: 2010 Current Population Survey data accessed via IPUMS.org

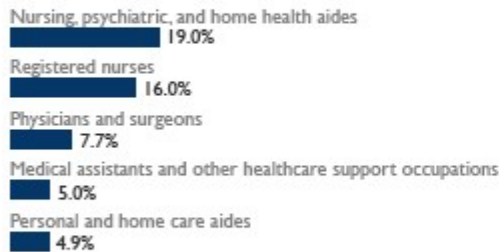


Those working in the food service sector work for all types of restaurants, bars, and food services contractors, including those found in schools and hospitals. Both immigrant and native food services workers are highly concentrated in their top five occupations, 71 percent and 65 percent respectively, and reflect a mixture of mid- and low-skilled workers. Four out of the top five occupations on the list for immigrant and native workers are the same, but differ in share of each in this sector: cooks, waiters and waitresses; food services managers; and cashiers. The fifth most common occupation for each group represents the same share of workers but requires different skill levels: 6 percent of immigrants in this sector are food preparation workers, while 6 percent of natives are first-line supervisors and managers.

7e. Immigrant clustering in the healthcare industry

Among immigrants a higher share are working as doctors or lower-skilled nursing aides than among the native-born.

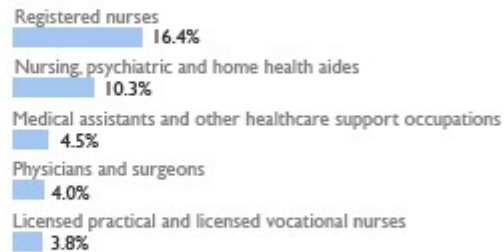
% of foreign-born in the healthcare sector working as...



Top five total:

52.6%

% of native-born in the healthcare sector working as...



Top five total:

38.8%

Source: 2010 Current Population Survey data accessed via IPUMS.org

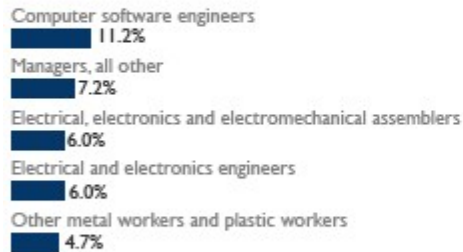


In the healthcare sector, native and immigrant workers have very similar occupational profiles, with each list containing four of the same occupations among the top five-ranked jobs. However, 53 percent of all foreign-born workers are in the top five occupations compared to 39 percent of U.S.-born workers. Nineteen percent of immigrant workers in this sector are in mid-skilled nursing, psychiatric, and home health aide jobs, while 10 percent of natives are. Registered nurses comprise 16 percent of both immigrant and native health care workers, accounting for 343,000 and 2.1 million workers, respectively. Eight percent of immigrants and 4 percent of natives in this sector are physicians and surgeons, representing approximately 160,000 foreign and 500,000 native doctors. Personal and home care aides—a low-skill occupation—comprise 5 percent of foreign workers in this sector, while 4 percent of natives work as mid-skilled licensed practical and vocational nurses.

7f. Immigrant clustering in the high-tech manufacturing industry

Computer software engineer is the most common occupation for both U.S.-born and foreign-born workers.

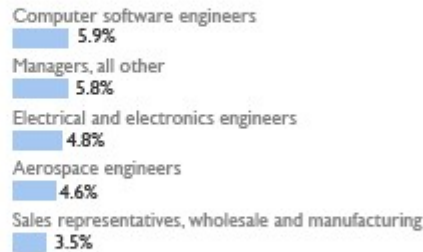
% of foreign-born in the high-tech manufacturing sector working as...



Top five total:

35.2%

% of native-born in the high-tech manufacturing sector working as...



Top five total:

24.6%

Source: 2010 Current Population Survey data accessed via IPUMS.org

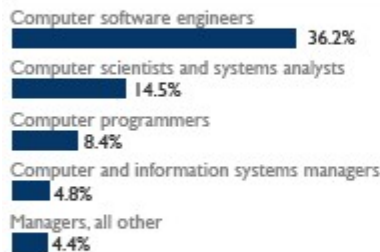


High-tech manufacturing in this analysis includes certain industries with a high proportion of tech workers across a diverse range of products including computer, communications, electronic, and aerospace products (following [Hecker, 2005](#)). This sector has the least concentrated occupational distribution among the sectors of focus, at least as measured by how clustered workers are within the top five occupations. Only 35 percent of immigrant workers and 25 percent of native workers are clustered in the top five occupations. Among all occupations, computer software engineers garner the largest share, 11 percent for foreign-born and 6 percent for native-born workers. (Note that this is also the top occupation for both immigrant and native workers in the information technology sector, but in that sector 36 percent of foreign-born and 16 percent of native-born workers work in those jobs.) Managers make up another 7 percent of workers in both groups while electrical and electronics engineers are six percent and five percent of immigrant and native workers, respectively. Overall, the top five occupations for immigrants include three mid-skill and two high-skill jobs, while four of the five top jobs for natives are high-skill.

7g. Immigrant clustering in the info. technology industry

Immigrants and natives work in similar jobs, but immigrants are substantially more concentrated in the top five occupations.

% of foreign-born in the info. technology sector working as...



Top five total:

68.3%

% of native-born in the info. technology sector working as...



Top five total:

48.1%

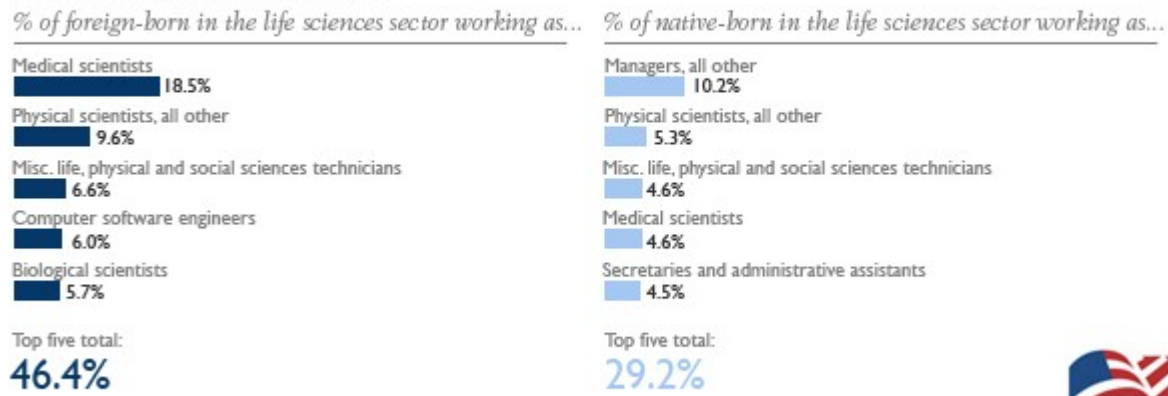
Source: 2010 Current Population Survey data accessed via IPUMS.org



The information technology field, like agriculture, is associated with popular images of immigrant workers but in this instance on the high-skill end. Foreign-born workers are much more concentrated in the five largest occupations than native-born (68 percent versus 48 percent). More than one-third of immigrants working in this sector are computer software engineers, while only 16 percent of native workers are in that occupation. Computer scientists and systems analysts are another 15 percent of immigrant workers and 10 percent of native workers in this sector. Computer and information systems managers represent 5 and 8 percent of foreign-born and native-born workers, respectively. Two top occupations for immigrants—computer programmers and managers—do not appear on the list of top occupations for natives. Likewise, computer support specialists and network systems and data communications analysts are among the top most common jobs for natives in this sector but not for immigrants.

7h. Immigrant clustering in the life sciences industry

Immigrants are more likely to be working as medical scientists than natives who are more likely to be working as managers.



Source: 2010 Current Population Survey data accessed via IPUMS.org

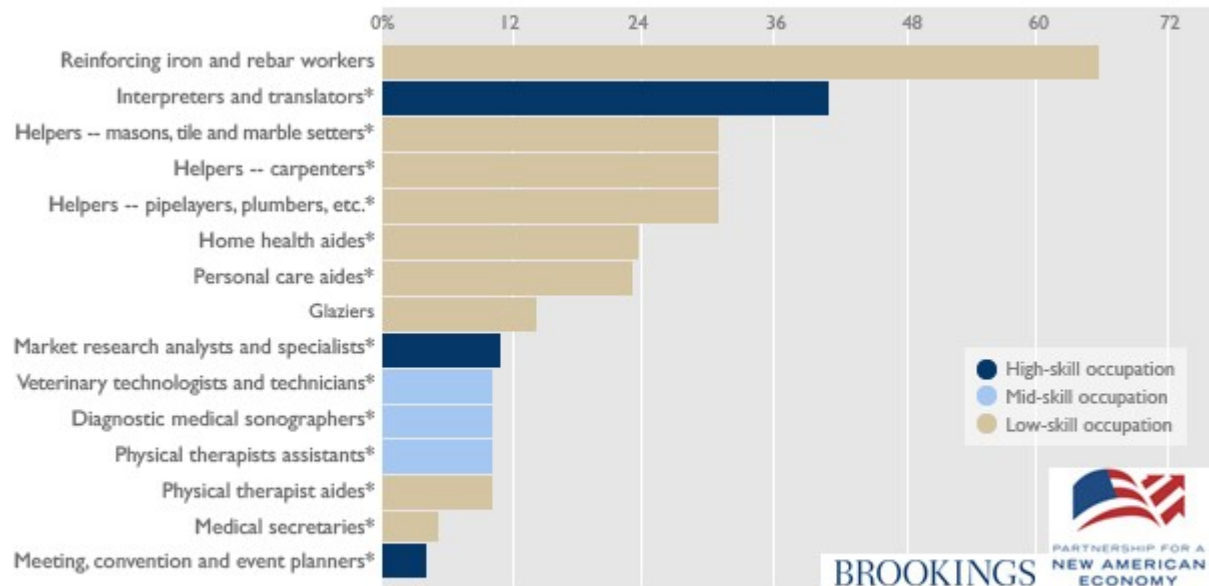


The life sciences sector includes pharmaceutical and medicine manufacturing and scientific research and development services more broadly. Among top-ranked occupations in the life sciences industries, three of the five are the same for foreign-born and U.S.-born workers. Immigrants are more clustered at the top of the list of occupations than native workers (46 percent versus 29 percent). The top ranked occupation for immigrants is medical scientists, capturing 19 percent of immigrants and 5 percent of natives in this field. Physical scientists (10 percent for immigrants and 5 percent for natives) and other scientific technicians (7 percent for immigrants and 5 percent for natives) are the two other top-ranked occupations in this sector that are shared by both groups of workers. One out of ten natives in this sector is employed as a manager. Like several other industries included in this analysis, immigrants are performing work as computer software engineers (6 percent in the life sciences sector). Finally, 6 percent of immigrants in this sector work as biological scientists, while 5 percent of natives are secretaries and administrative assistants.

8a. Immigrants over-represented in fastest-growing occupations

Among the 15 fastest-growing occupations, seven have high shares of foreign-born workers currently employed in those jobs.

Foreign-born share in 2010 of the fifteen fastest-growing occupations, 2010 – 2020



Source: Projections data from Table 6 of <http://www.bls.gov/news.release/pdf/ecopro.pdf>; share foreign-born from 2010 Current Population Survey; skill level based on typical education needed to enter the occupation as reported by BLS.

*For occupations marked with an asterisk, there is not a one-to-one match between BLS and CPS data. CPS data, which was used to determine the share foreign born, has less detailed occupational categories.

Note: Biomedical engineers and occupational therapy assistants were among the fifteen occupations projected to grow the fastest by BLS, but they are not included on this graph because the sample size for foreign-born workers in those occupations in the 2010 CPS was too small to produce a reliable estimate.

As the U.S. economy restructures in the wake of the Great Recession, it is difficult to foresee in exactly which industries and occupations future demand will be the greatest. To examine potential growth in the U.S. labor market, we look at recent projections made by the U.S. Bureau of Labor Statistics (BLS) of the occupations that are expected to grow the fastest and those expected to expand the greatest during the 2010–2020 period. In order to gauge current and future labor capacity that may be derived from immigrant labor, the next two figures show the percentage of each occupation’s workers that is currently foreign-born.

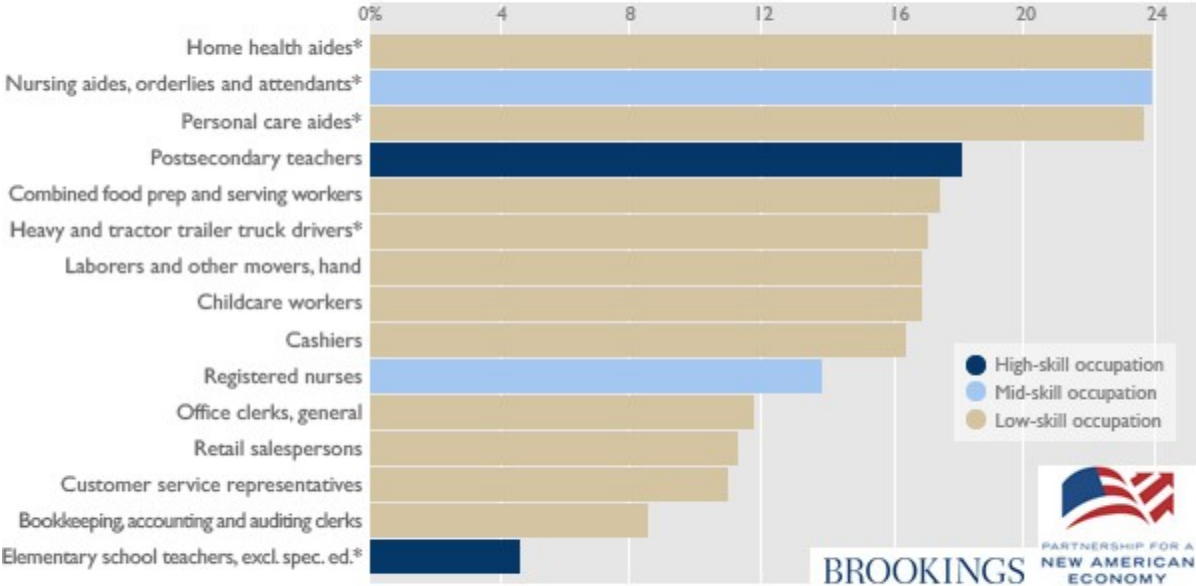
Among the 15 fastest-growing occupations, seven have high shares of foreign-born workers currently employed in those jobs (higher than the share of the total labor force that is foreign-born). Among these occupations, several construction jobs are projected to be among the fastest growing; all are low-skilled. Currently, more than 60 percent of all iron and rebar workers, and more than 30 percent of helpers to brickmasons, carpenters and pipelayers are immigrants. Other low-skill occupations that have high shares of immigrant workers include home health aides (24 percent) and personal care aides (23 percent). Among those that require postsecondary education or training are interpreters and translators who are 41 percent foreign-born. All of these occupations are expected to grow by 42 percent or more

between 2010 and 2020 according to BLS projections. If current trends continue, we would expect to see these occupations filled disproportionately by immigrants.

8b. Immigrants over-represented in largest-growing occupations

Among the 15 occupations expected to see the largest numerical growth, eight have high shares of foreign-born workers currently employed in those jobs.

Foreign-born share in 2010 of the fifteen largest-growing occupations, 2010 – 2020



Source: Projections data from Table 7 of <http://www.bls.gov/news.release/pdf/ecopro.pdf>; share foreign-born from 2010 Current Population Survey; skill level based on typical education needed to enter the occupation as reported by BLS
 *For occupations marked with an asterisk, there is not a one-to-one match between BLS and CPS data. CPS data, which was used to determine the share foreign born, has less detailed occupational categories.

Likewise if we examine those occupations that are expected to see the largest numerical growth, immigrant workers are overrepresented in eight occupations. Two of them also appeared on the list of fastest-growing occupations in Figure 8a: home health aides and personal care aides. In the healthcare field, nursing aides, orderlies and attendants are projected to have large job growth, and in that occupation 24 percent of current workers are foreign born. Other lower-skilled occupations with high shares of immigrant workers include: food preparation and food serving (17 percent), heavy tractor trailer truck drivers (17 percent), freight stock and material movers (17 percent), childcare workers (17 percent), and cashiers (16 percent). Postsecondary teachers, of whom 18 percent are currently foreign-born, is a high-skilled occupation that is projected to grow in large numbers. These 10-year projections portend occupations filled disproportionately by immigrants.