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# Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession

Declines in eight states and increases in seven since 2009

BY Jeffrey S. Passel and D'Vera Cohn

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### **Terminology**

"Foreign born" refers to an individual who is not a U.S. citizen at birth or who, in other words, is born outside the U.S., Puerto Rico or other U.S. territories and whose parents are not U.S. citizens. The terms "foreign born" and "immigrant" are used interchangeably.

"U.S. born" refers to an individual who is a U.S. citizen at birth, including people born in the United States, Puerto Rico or other U.S. territories, as well as those born elsewhere to at least one parent who is a U.S. citizen.

The "lawful immigrant" population is defined as naturalized citizens; people granted lawful permanent residence (previously known as legal permanent residence); those granted asylum; people admitted as refugees; and people admitted under a set of specific authorized temporary statuses for longer-term residence and work.

"Unauthorized immigrants" are all foreign-born noncitizens residing in the country who are not "lawful immigrants." These definitions reflect standard and customary usage by the U.S. Department of Homeland Security and academic researchers. The vast majority of unauthorized immigrants entered the country without valid documents or arrived with valid visas but stayed past their visa expiration date or otherwise violated the terms of their admission. Some who entered as unauthorized immigrants or violated terms of admission have obtained work authorization by applying for adjustment to lawful permanent status, obtaining Temporary Protected Status (TPS) or receiving Deferred Action for Childhood Arrivals (DACA) status. This "quasi-lawful" group could account for as much as 10% of the unauthorized immigrant population. Many could also revert to unauthorized status.

The "labor force" refers to the civilian labor force, unless otherwise specified, including people ages 16 and older who are employed, or unemployed and looking for work. "Workforce" is used interchangeably with labor force. People in the labor force are referred to as "workers" regardless of their employment status. Similarly, when there is analysis of estimates for occupations, "occupation" and "job" are used interchangeably. And for industries, "industry" and "sector" are used interchangeably.

The occupation and industry category titles used throughout the report have been shortened for display purposes. The full list is included in the Methodology.

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# Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession

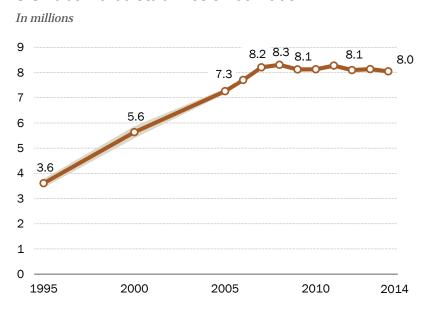
Declines in eight states and increases in seven since 2009

There were 8 million unauthorized immigrants in the U.S. working or looking for work in 2014, making up 5% of the civilian labor force, according to new Pew Research Center estimates using government data. The number was unchanged and the share was down slightly since 2009, the

year the Great Recession officially ended.<sup>1</sup>

The recent stability in the trend for unauthorized immigrants in the U.S. workforce echoes that for the unauthorized immigrant population overall. Both groups had grown rapidly during the 1990s and early 2000s. Compared with their sizes at the start of the recession in 2007, the unauthorized immigrant workforce was slightly smaller in 2014 and the overall unauthorized immigrant population was markedly smaller. From 2009 to 2014, when the number of unauthorized immigrant workers was stable, eight U.S. states -

# Estimated number of unauthorized immigrants in the U.S. labor force stabilizes since 2009



Note: Shading surrounding line indicates high and low points of the estimated 90% confidence interval. Data labels are for 1995, 2000, 2005, 2007, 2008, 2009, 2012, and 2014. The 2009-2014 change is not statistically significant at 90% confidence interval. Source: Pew Research Center estimates for 2005-2014 based on augmented American Community Survey (IPUMS); for 1995 and 2000 based on March Supplements to the Current Population Survey.

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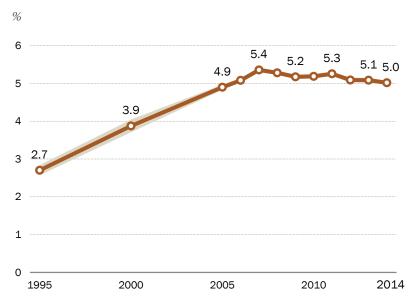
Alabama, California, Georgia, Illinois, Kansas, Nevada, South Carolina and Rhode Island – had statistically significant declines in the number of unauthorized immigrants in their workforces. Seven U.S. states – Louisiana, Minnesota, New Jersey, Pennsylvania, Utah, Virginia

<sup>&</sup>lt;sup>1</sup> The <u>Great Recession</u> began in December 2007 and lasted until June 2009, according to the National Bureau of Economic Research's Business Cycle Dating Committee, which defines national recessions.

and Washington – had increases in the number of unauthorized immigrants in their workforces.<sup>2</sup>

Most states that experienced change in their unauthorized immigrant workforces also experienced change in their total unauthorized immigrant populations. In 12 states, both the total number of unauthorized immigrants and the number of unauthorized immigrants in the civilian labor force changed in the same direction from 2009 to 2014. In three states where the unauthorized immigrant workforce changed from 2009 to 2014 – Minnesota, Rhode Island and Utah unauthorized immigrant

# Little change since 2009 in unauthorized immigrants as an estimated share of the U.S. labor force



Note: Data labels are for 1995, 2000, 2005, 2007, 2009, 2011, 2013 and 2014. The change in shares from 2009 to 2014 is statistically significant at 90% confidence interval. Source: Pew Research Center estimates for 2005-2014 based on augmented American Community Survey (IPUMS); for 1995 and 2000 based on March Supplements to Current Population Survey.

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populations overall did not change during the period.

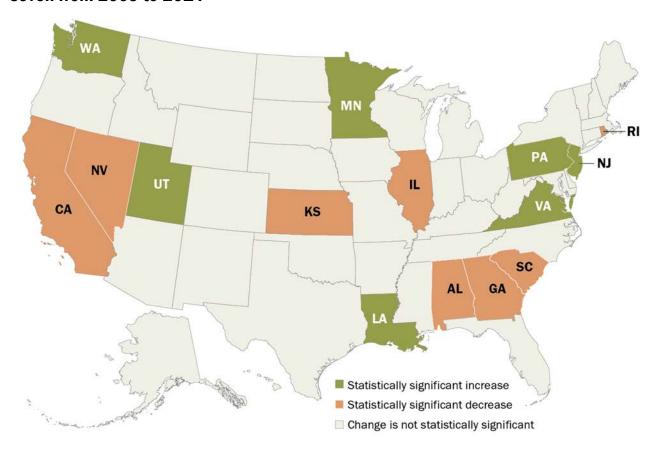
Looking at 2014 estimates, states with the largest number of total unauthorized immigrants in their workforces also were among those states with the largest overall populations of unauthorized immigrants. They included California, with 1.7 million unauthorized immigrant workers; Texas, with 1.1 million; and New York, with 600,000. States where unauthorized immigrants accounted for the largest share of the workforce included Nevada (10.4%); California (9.0%) and Texas (8.5%). (See the chart on Page 24 for the top states.)

These key findings - and others about the occupations and industries in which unauthorized immigrants work - come from new Pew Research Center estimates based mainly on U.S. Census

<sup>&</sup>lt;sup>2</sup> Additional states may have experienced change in the number of unauthorized immigrants in their workforces since 2009, but these changes could not be detected because they fall within the margin of error for these estimates. In seven states (Maine, Montana, North Dakota, South Dakota, Vermont, West Virginia and Wyoming), the sample size was too small to allow an analysis of change for 2009 to 2014.

Bureau data. Details concerning the source material and methods for calculating the estimates are available in the Methodology.

# Estimated unauthorized immigrant workforce declined in eight states, grew in seven from 2009 to 2014



Note: Changes based on 90% confidence interval. The number of unauthorized immigrants in the labor force may have changed in additional states but these changes cannot be detected because they fall within the margin of error for these estimates.

Source: Pew Research Center estimates for 2009-2014 based on augmented American Community Survey (IPUMS). "Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

The nation's 11.1 million unauthorized immigrants made up 26% of the nation's 43.6 million foreign-born residents in 2014. The U.S. foreign-born population also included 19 million naturalized citizens, 11.7 million lawful permanent residents and 1.7 million lawful residents with temporary status (such as students, diplomats and "guest workers" in the technology sector). In total, immigrants represented 13.6% of the U.S. population in 2014.

In 2014, the nation's civilian labor force consisted of about 133 million U.S.-born workers (83% of the total), 19.5 million lawful immigrant workers (12%) and 8 million unauthorized immigrant workers (5%). The numbers of U.S.-born members of the workforce and lawful immigrant members of the workforce increased from 2009 to 2014, while the number of unauthorized immigrant workers did not.

# Unauthorized immigrants more likely to be of working age than other groups

# U.S. labor force grows since 2009, but not the number of unauthorized immigrant workers

Labor force estimates, in millions

	2009	2014
U.S. total	156.9	160.4
U.S. born	130.7	132.8
Lawful immigrant Unauthorized	18.1	19.5
immigrant	8.1	8.0

Note: Based on civilian labor force.
Source: Pew Research Center estimates for 2009 and 2014 based on augmented American Community Survey (IPUMS).
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Unauthorized immigrants make up a larger share of the U.S. labor force (5% in 2014) than of the total population (3.5%) in part because they are disproportionately likely to be of working age. Fully 92% of unauthorized immigrants are ages 18 to 64, compared with 60% of the U.S.-born population and 76% of lawful immigrants.

Among unauthorized immigrants, males are more likely than their U.S.-born and lawful immigrant counterparts to be working or looking for work, while female unauthorized immigrants are less likely to be in the labor force. Fully 91% of unauthorized immigrant men ages 18 to 64 were working or looking for work in 2014, compared with 79% of U.S.-born men of similar age and 84% of lawful immigrants of similar age.

Among women ages 18 to 64, labor force participation was 61% for unauthorized immigrants in 2014, 72% for the U.S. born and 67% for lawful immigrants. One reason for the disparity could be that unauthorized immigrant women who are not in the workforce are far more likely than other groups to have children younger than 18 at home.

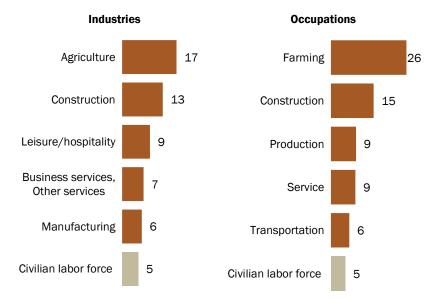
Although unauthorized immigrants work throughout the U.S. economy, they are particularly concentrated in some sectors, according to the Pew Research Center analysis. Compared with their

5% share of the civilian workforce, they were overrepresented in the agriculture (17%) and construction (13%) sectors, as well as in the leisure and hospitality industry (9%). They were underrepresented in some sectors such as the educational and health services sector and the financial and information industries.

By occupation, unauthorized immigrants held a higher share of U.S. farming jobs (26%) in 2014 than would be expected given their share of the workforce. They also held a disproportionate share of construction jobs (15%). By contrast, unauthorized immigrants held a lower share of maintenance, management, professional, sales and office

# Some U.S. industries and occupations have high shares of unauthorized immigrant workers

% of workers in \_\_\_\_ industry/occupation who are unauthorized immigrants, 2014



Note: Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The industry/occupation groups shown correspond to the Census Bureau classifications for major industry/occupation groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates from augmented 2014 American Community Survey (IPUMS).

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support jobs than their share of the workforce overall.

However, there is no sector or occupation where unauthorized immigrant workers were a majority; in all industries or occupations, they were outnumbered by U.S.-born workers.

The unauthorized immigrant estimates in this report are produced using a multistage method that first subtracts the estimated U.S. lawful foreign-born population from the total adjusted foreign-born population to derive a residual estimate of the unauthorized immigrant population. Then, the residual estimates serve as control totals in assigning legal status to individual respondents in the survey. The main source of data for 2005-2014 is the American Community Survey, conducted by the U.S. Census Bureau; see Methodology for more details.

Accompanying this report are <u>interactive maps</u> showing 2014 estimates for the 50 states and District of Columbia on:

- The unauthorized immigrant population
- Unauthorized immigrants' share of each state's overall population, foreign-born population and labor force
- The share of K-12 students with unauthorized immigrant parents
- Mexicans as a share of unauthorized immigrants
- Statistically significant change in the unauthorized immigrant population from 2009 to 2014

Another <u>interactive graphic</u> shows unauthorized immigrant population trends for U.S. states of residence as well as international regions and largest countries of birth, based on a previous <u>Pew Research</u> Center report.

# Occupation and industry: What's the difference?

This report on the unauthorized immigrant workforce includes estimates about occupation, which is the kind of work that people do on the job, as well as about industry, which is the kind of business conducted by an employing organization.

Some occupation groups are similar to industry categories — for example, many construction workers are employed in the construction industry. The construction industry, however, also employs people in many other occupations, such as manager, clerk, etc.

The <u>Census Bureau</u> obtains data on occupation and industry from responses to write-in and check-box questions; the responses are coded using a standard classification system.

### Some unauthorized immigrants have permission to work

Unauthorized immigrants include those who enter the country without legal permission and those who overstay their visas. About 10% of unauthorized immigrants have been granted temporary protection from deportation – and eligibility to work – under two government programs. They include more than 728,000 young adults who were brought to the U.S. as children and successfully applied for President Barack Obama's 2012 Deferred Action for Childhood Arrivals program. The program rules state that unauthorized immigrants must have been be no older than 30 as of June 15, 2012; must have been brought to the U.S. before age 16; and must have lived in the U.S. continuously since June 15, 2007. In addition, eligible applicants have to be in school, hold a high school diploma or General Education Development (GED) certificate, or be an honorably discharged military veteran. The rules also specified that they cannot have a significant criminal record and cannot "pose a threat to national security or public safety."

Those seeking eligibility had to submit documents to prove their claim and pay a \$465 filing and biometric fee. They also had to submit fingerprints, a photo and a signature for security purposes. An <u>additional 4 million young adults and their parents would have been eligible</u> under an expansion that has been blocked by a federal court.

Under the second program, an estimated 326,000 immigrants, mostly from Central America, have been granted <u>Temporary Protected Status</u> because of disease, natural disaster or conflict in their home countries. The Pew Research Center estimates of the unauthorized immigrant population also include some people who have applied for asylum status but whose applications have not been processed. As of April 2014, about <u>45,000</u> <u>cases of principal applicants</u> were pending; if family members are included, that total might rise to as much as 75,000.

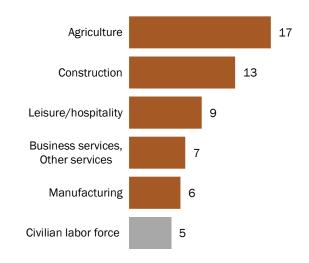
## 1. Industries of unauthorized immigrant workers

Unauthorized immigrants are unevenly distributed across some industrial sectors and occupations in the U.S. economy. Compared with their 5% share of the overall civilian workforce, they are a higher share in some types of employment and a lower share in others. They tend to cluster in sectors and occupations that offer low-skilled work, due in part to their low educational attainment and the limitations placed on employment by their legal status. However, in all sectors, there are more U.S.-born workers than unauthorized immigrant workers. (See the table on page 27 for data on workers' status by major industry.)

In 2014, unauthorized immigrants accounted for 17% of the workforce in the U.S. agriculture industry and 13% of the construction industry workforce, notably higher than their representation in the labor force overall. Even so, the number and share of U.S.-born workers in both sectors were notably higher, accounting for 69% of agricultural industry employment and 76% of construction industry employment. In these two sectors the number (and share) of

# Some industries have high shares of unauthorized immigrant workers

% of workers in \_\_\_\_ industry who are unauthorized immigrants, 2014



Note: Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The industry groups shown correspond to the Census Bureau classifications for major industry groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates from augmented 2014 American Community Survey (IPUMS).

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unauthorized immigrant workers was slightly higher than that of lawful immigrant workers; in all other sectors, the number of lawful immigrant workers was substantially larger than for unauthorized immigrants.

Unauthorized immigrants are somewhat overrepresented in the leisure and hospitality sector, where they made up 9% of the workforce in 2014. In this sector, though, they were a lower share of the workforce than both U.S.-born employees (79%) and lawful immigrant employees (12%).

Some subsets of each major industry have particularly high concentrations of unauthorized immigrants among their workers. About a fifth or more of the workforce in the crop production

industry (22%), private household employment (22%) and the landscaping industry (21%) consisted of unauthorized immigrants in 2014. Disproportionately high shares of unauthorized immigrants also worked in the apparel manufacturing industry (19%), the building maintenance sector (19%) and the dry cleaning and laundry industry (18%). (See the table on page 31 for data on specific industries.)

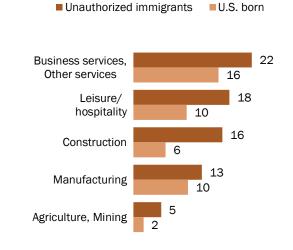
How is the unauthorized immigrant workforce distributed across industrial sectors? A

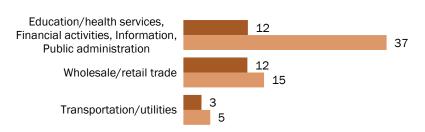
disproportionate share of unauthorized immigrants are employed in the business and other services sectors. These sectors cover a wide range of establishments such as legal services, advertising, landscaping and waste management, as well as personal services such as dry cleaning, nail salons and car washes. Fully 22% of unauthorized immigrants worked in these sectors in 2014, compared with 16% of U.S.-born workers.

A notably higher share of unauthorized immigrants (16% in 2014) work in the construction industry compared with U.S.-born workers and lawful immigrants (6%) each. Unauthorized immigrants also are more likely to work in the leisure and hospitality sector (18% did in 2014) compared with U.S.-born and lawful immigrant workers (each 10%).

# Unauthorized immigrants and U.S.-born workers have different industry profiles

% of each status group's workers who are in each major industry, 2014





Note: Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The industry groups shown correspond to the Census Bureau classifications for major industry groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates based on augmented 2014 American Community (IPUMS).

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In 2014, the agriculture and mining industries employed only 5% of all unauthorized immigrant workers, but that is higher than the share of U.S.-born workers (2%) who held jobs in that industry.

In some industries, the disparity is in the other direction. For example, 23% of U.S.-born workers were employed in the educational and health services sector in 2014, compared with only 7% of unauthorized immigrants who were so employed. An additional 7% of U.S.-born workers were employed in the financial sector, compared with 3% of unauthorized immigrant workers. The transport and utilities sector employed 5% of U.S.-born workers in 2014, but 3% of unauthorized immigrant workers.

### State industry patterns

Echoing the national pattern, agriculture and construction are the industries where unauthorized immigrants make up the highest share of the overall civilian workforce in the largest number of states. Agriculture ranked first in 19 states in 2014 and second in nine more. Nationally, unauthorized immigrants accounted for 17% of workers in the agriculture industry in 2014, but were 5% of the total U.S. workforce. Construction ranked first in 16 states in 2014 and second in 16 more.<sup>3</sup>

Looked at from another perspective – how unauthorized immigrant workers are distributed across industry sectors – the picture changes somewhat. Construction ranked first in 2014 as the industry that employs the largest share of unauthorized immigrant workers in 14 states, more states than any other industry. Nationwide, 16% of unauthorized immigrant workers were employed in the construction industry. The leisure and hospitality sector ranks second, employing the largest share of the unauthorized immigrant workforce in 10 states in 2014. (See tables on page 36 for the top industries for unauthorized immigrants by state in 2014).

<sup>&</sup>lt;sup>3</sup> This report includes estimates of the number of unauthorized immigrants by industry in 43 states and the District of Columbia where there are enough unauthorized immigrants in the workforce to provide reliable data.

# 2. Occupations of unauthorized immigrant workers

Although unauthorized immigrants made up 5% of the nation's civilian workforce in 2014, they accounted for a much higher share (26%) of the workers in farming occupations. Unauthorized immigrants also were 15% of workers in construction jobs in 2014. U.S.-born workers accounted

for a majority of workers in all major occupation groups, including 54% of the farming workforce in 2014 and 73% of the construction workforce. Only in construction jobs and farming jobs do unauthorized immigrant workers outnumber lawful immigrant workers (15% vs. 12%, and 26% vs. 20%). (See the table on page 26 for data on workers' status by major occupation.)

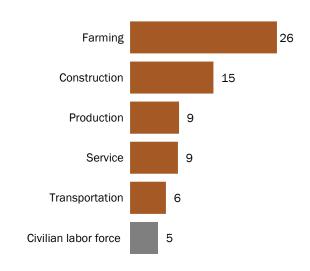
Unauthorized immigrants also were somewhat overrepresented in 2014 in production jobs, which include manufacturing, food processing and textile occupations, where they were 9% of the workforce. In 2014, unauthorized immigrants also held 9% of service jobs, a larger share than their 5% of the overall workforce.

However, unauthorized immigrants made up only 2% each of management, professional and office support workers. In those occupational categories, U.S.-born workers made up at least 85% of the jobholders.

As with industries, there are some very specific occupations with particularly high

# Some U.S. occupations have high shares of unauthorized immigrant workers

% of workers in \_\_\_\_ occupation who are unauthorized immigrants, 2014



Note: Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The occupation groups shown correspond to the Census Bureau classifications for major occupation groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications. Source: Pew Research Center estimates from augmented 2014 American Community Survey (IPUMS).

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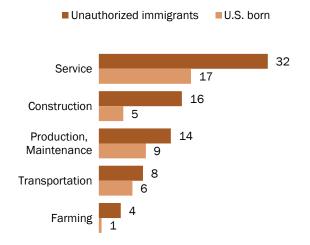
concentrations of unauthorized immigrant workers. The occupations tend to be subgroups of the major occupations with the highest shares of unauthorized immigrant workers. The occupations where at least one-quarter of workers are unauthorized immigrants include drywall installers (31% in 2014), miscellaneous agricultural workers (30%), roofers (29%), construction painters (26%) and brick masons (25%). U.S.-born workers, however, account for the largest share of workers in all these occupations. (See the table on page 30 for data on these and other specific occupations.)

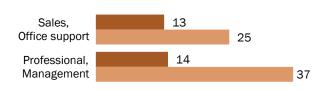
Compared with U.S.-born workers, unauthorized immigrant workers are more likely to be employed in service and construction occupations. About a third of unauthorized immigrant workers (32% in 2014) are employed in service occupations, compared with 17% of U.S.-born workers who hold these types of jobs. Construction jobs employed 16% of unauthorized immigrant workers in 2014, triple the share of U.S.-born workers (5%) in those occupations. Production and maintenance jobs employed 14% of unauthorized immigrant workers in 2014, but 9% of U.S.-born workers. Only 4% of unauthorized immigrant workers held farming jobs in 2014, but about 1% of U.S.-born workers did.

Among unauthorized immigrant workers, 6% held management jobs in 2014, compared with 15% of U.S.-born workers who did. An additional 8% were in professional occupations, compared with 22% of U.S.-born workers. Sales and office support occupations employed 13% of unauthorized immigrant workers, compared with 25% of U.S.-born workers who held these types of jobs.

# Unauthorized immigrants and U.S.-born workers have different occupation profiles

% of each status group's workers who are in each major occupation, 2014





Note: Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The occupation groups shown correspond to the Census Bureau classifications for major occupation groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications. Source: Pew Research Center estimates based on augmented 2014 American Community (IPUMS).

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### State occupation patterns

At the state level, farming is overwhelmingly the occupation where unauthorized immigrants make up the highest share of the workforce.<sup>4</sup> It is the top occupation by this measure in 32 states. For the nation, unauthorized immigrant workers are overrepresented in farming jobs, where they made up 26% of workers in 2014 compared with the overall workforce, where they represented 5% of U.S. workers. Construction ranks first in nine states. Nationally, unauthorized immigrant workers held 15% of construction jobs in 2014.

However, when looked at from the perspective of the distribution of the unauthorized immigrant workforce, service occupations rank first in 37 states and the District of Columbia. Service occupations also dominate at the national level, employing 32% of the unauthorized immigrant workforce. (See tables on page 32 for the top occupations for unauthorized immigrants by state in 2014).

<sup>&</sup>lt;sup>4</sup> This report includes estimates of the number of unauthorized immigrants by occupation in 43 states and the District of Columbia where there are enough unauthorized immigrants in the workforce to provide reliable data.

# **Acknowledgments**

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An earlier draft of this paper was prepared for presentation in Paris to the Organization for Economic Co-operation and Development (OECD) Working Party on Migration.

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# Methodology

The unauthorized immigrant estimates throughout this report are produced using a multistage method that first subtracts the estimated lawful foreign-born population from the total foreign-born population to derived estimates of the unauthorized immigrant population (for large states and the balance of the country, for adults and children and by region of birth). The residuals then are used as control totals for a probabilistic process that assigns legal status to individuals in the survey based on their age, region of birth, family relationships and other socio-demographic characteristics. Finally, the resulting estimates are adjusted to take into account persons omitted from the survey.

The main source of data for estimates from 2005 to 2014 is the U.S. Census Bureau's American Community Survey, tabulated from the public-use file obtained from the Integrated Public-Use Microdata Series or IPUMS (Ruggles et al., 2015). Estimates for 1995 and 2000 use the bureau's March supplements to the Current Population Survey. See Passel and Cohn 2016 for more detail.

The estimates included here supersede all previously published estimates of unauthorized immigrants, and may differ slightly from previously published estimates.

The labor force includes all people ages 16 and older who are working or looking for work. For the analyses of occupations and industries, we exclude people who did not report an occupation or industry. In our analysis, we also exclude people in the military or with a military occupation. These exclusions drop about 2% of the total labor force of roughly 161 million – 2.9 million are excluded from the occupation analyses and 3.4 million from the industry analyses. About 120,000 unauthorized immigrants, or 1.5% of those in the workforce, are excluded from this analysis because they do not report an occupation or industry; unauthorized immigrants are generally not eligible to be in the military or to hold military employment, so are not excluded for that reason. Unemployed people are only excluded if they do not report an occupation or industry, although most do report them.

### **Rounding of estimates**

All estimates for immigrant populations, lawful and unauthorized, are presented as rounded numbers to avoid the appearance of unwarranted precision in the estimates. The rounding conventions for immigrant estimates, dependent somewhat on data sources, are:

Greater than 10,000,000 Nearest 100,000 1,000,000-10,000,000 Nearest 50,000 250,000-1,000,000 Nearest 25,000

100,000-250,000 Nearest 10,000 5,000-100,000 Nearest 5,000 <5,000 Shown as <5,000

State and national data for the total and U.S.-born populations are rounded to the nearest 10,000. Unrounded numbers are used for significance tests, for plotting charts and for computations of differences and percentages. Where differences are reported, they are computed from unrounded estimates and then rounded separately. Because each figure is rounded separately, the rounded estimates may not add to rounded totals. Similarly, percentages computed from rounded numbers may differ from the percentages shown in this report.

### **Industry and occupation category labels**

The Census Bureau has three different levels of aggregation each for industry and occupation. At the highest level, there are 12 classifications for "major occupation" groups (11 for civilians, plus the armed forces). At the next level, there are 23 "detailed occupation" groups, but eight of them are identical to the "major" groups; the three major occupation groups for management, professional and service occupations are subdivided into 15 smaller, detailed groups. Finally, there are a large number of very specific occupation categories – almost 600 – which can be grouped into either the "detailed" or "major" groups. So, for example, the code for "Aerospace engineers" (1320) is part of the detailed category for "Architecture and engineering occupations" which, in turn, is part of the major category of "Professional and related occupations."

For industries, the highest level has 14 "major industry" groups (13 for civilians and one for the armed forces). At the next level, there are 52 "detailed industry" groups. Unlike with occupations, only four of the "major" groups are identical to "detailed" groups. Finally, there are 273 very specific industry categories that can be grouped into either the "detailed" or "major" groups. So, for example, the industry called "Retail bakeries" (code 1190) is part of the detailed category for "Food manufacturing" which, in turn, is part of the major category of "Manufacturing."

The analyses presented here use the "major" categories for both occupations and industries. Some data are presented for the very specific occupations and industries with the highest concentrations of unauthorized immigrants.

For ease of presentation, the full titles of many industry and occupation categories have been condensed from the Census Bureau's terminology in some figures and text. If so, they are shortened as follows:

Agriculture, forestry, fishing, and hunting
Mining
Construction
Manufacturing
Agriculture
no change
no change

Wholesale and retail trade Wholesale/retail

Transportation and utilities Transport/utilities

Information no change Financial activities no change

Professional and business services

Educational and health services

Business services

Education/health

Leisure and hospitality Leisure/hospitality

Other services no change Public administration no change

Data on "major" occupation categories are sometimes condensed in figures and the text. If so, they are shortened as follows:

Management, business, and financial Management
Professional and related Professional
Service no change
Sales and related Sales

Office and administrative support Office support

Farming, fishing, and forestry Farming (or Agriculture)

Construction and extraction Construction
Installation, maintenance, and repair Maintenance
Production no change
Transportation and material moving Transportation

References in the text, text charts and tables can be cross-referenced to the lists above.

More information on the Census Bureau's industry and occupation categories can be found here: <a href="http://www.census.gov/people/io/">http://www.census.gov/people/io/</a>

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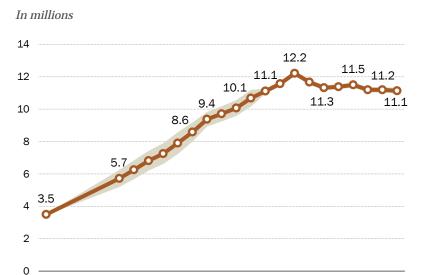
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# **Appendix B: Additional charts**

# Estimated unauthorized immigrant population in the U.S., 1990-2014



Note: Shading surrounding line indicates low and high points of the estimated 90% confidence interval. The 2009-2014 change is not statistically significant at 90% confidence interval. Data labels are for 1990, 1995, 2000, 2001, 2003, 2005, 2007, 2009, 2011, 2013 and 2014.

2005

2014

2000

Source: Pew Research Center estimates for 2005-2014 based on augmented American Community Survey data (IPUMS); for 1995-2004 based on March Supplements of the Current Population Survey. Estimates for 1990 from Warren and Warren (2013). "Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

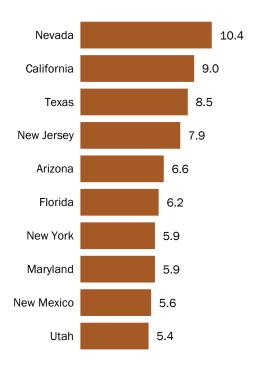
#### PEW RESEARCH CENTER

1990

1995

# Among states, Nevada has highest share of unauthorized immigrants in workforce

% of workers who are unauthorized immigrants, 2014



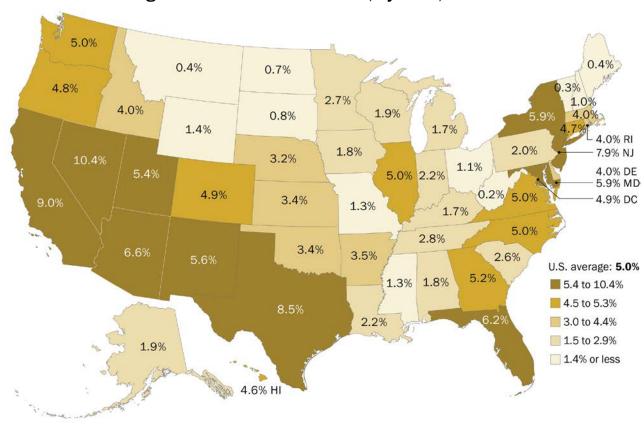
Note: Percentages calculated from unrounded numbers. Rankings based on unrounded numbers. Differences between consecutive ranks may not be statistically significant.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

"Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

# **Appendix C: Additional map**

### Unauthorized immigrants as share of labor force, by state, 2014



Note: Percentages calculated from unrounded numbers. Based on civilian labor force. Source: Pew Research Center estimates based on augmented 2014 American Community Survey. "Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

# **Appendix D: Detailed tables**

### Major occupation groups, by nativity and status, 2014

Major occupation group	Total	U.S. born	Lawful immigrants	Unauthorized immigrants
		Civilian labor for	e (in thousands)	
Total, civilian labor force (with an occupation)	158,490	131,310	19,300	7,900
Management, business, and financial	22,900	19,870	2,600	425
Professional and related	34,030	28,950	4,450	650
Service	29,510	22,820	4,150	2,500
Sales and related	17,080	14,760	1,750	575
Office and administrative support	20,580	18,270	1,850	450
Farming, fishing and forestry	1,250	670	250	325
Construction and extraction	8,330	6,060	1,000	1,250
Installation, maintenance and repair	4,970	4,240	500	240
Production	9,570	7,380	1,350	850
Transportation and material moving	10,280	8,290	1,350	650
		Share of occ	cupation (%)	
Total, civilian labor force (with an occupation)	100.0	82.8	12.2	5.0
Management, business, and financial	100.0	86.8	11.3	1.9
Professional and related	100.0	85.1	13.0	1.9
Service	100.0	77.3	14.1	8.6
Sales and related	100.0	86.4	10.3	3.3
Office and administrative support	100.0	88.8	9.0	2.2
Farming, fishing and forestry	100.0	53.5	20.2	26.3
Construction and extraction	100.0	72.8	12.3	14.9
Installation, maintenance and repair	100.0	85.4	9.8	4.8
Production	100.0	77.1	14.2	8.8
Transportation and material moving	100.0	80.7	12.9	6.4
		Share of stat	us group (%)	
Total, civilian labor force (with an occupation)	100.0	100.0	100.0	100.0
Management, business, and financial	14.4	15.1	13.5	5.5
Professional and related	21.5	22.0	23.0	8.1
Service	18.6	17.4	21.6	31.9
Sales and related	10.8	11.2	9.1	7.1
Office and administrative support	13.0	13.9	9.7	5.8
Farming, fishing and forestry	0.8	0.5	1.3	4.1
Construction and extraction	5.3	4.6	5.3	15.7
Installation, maintenance and repair	3.1	3.2	2.5	3.0
Production	6.0	5.6	7.0	10.6
Transportation and material moving	6.5	6.3	6.9	8.3

Note: Figures in **boldface** under the "share of occupation" indicates an over-representation of lawful immigrants or unauthorized immigrants compared with their share of the overall labor force. **Boldface** figures under the "share of status group" indicate an over-representation of lawful immigrants or unauthorized immigrants compared with the U.S. born population within each occupation. Percentages calculated from unrounded numbers. See Methodology for rounding rules.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Major industry groups, by nativity and status, 2014

Major industry group	Total	U.S. born	Lawful immigrants	Unauthorized immigrants
		Civilian labor for		· ·
Total, civilian labor force (with an industry)	157,970	130,810	` 19,200 ´	7,900
Agriculture	2,170	1,510	300	375
Mining	1,020	920	70	35
Construction	10,200	7,710	1,200	1,300
Manufacturing	16,200	13,080	2,150	1,000
Wholesale/retail	22,700	19,320	2,450	925
Transportation/utilities	7.730	6,410	1,050	250
Information	3,440	2,970	375	100
Financial activities	10,060	8,660	1,150	250
Business services	17,870	14.370	2,400	1.100
Educational/health services	35,530	30,520	4,450	575
Leisure/hospitality	16,100	12.770	1,950	1.400
Other services	7,790	6,020	1,150	600
Public administration	7,140	6,550	600	NA
T done definition deform	1,140	Share of in		14/1
Total, civilian labor force (with an industry)	100.0	82.8	12.2	5.0
Agriculture	100.0	69.4	13.7	16.9
Mining	100.0	89.5	6.9	3.6
Construction	100.0	75.6	11.7	12.7
Manufacturing	100.0	80.7	13.2	6.1
Wholesale/retail	100.0	85.1	10.8	4.1
Transportation/utilities	100.0	83.0	13.6	3.4
Information	100.0	86.4	10.7	2.9
Financial activities	100.0	86.1	11.3	2.6
Business services	100.0	80.4	13.4	6.2
Educational/health services	100.0	85.9	12.5	1.6
Leisure/hospitality	100.0	79.3	12.0	8.7
Other services	100.0	77.2	14.9	7.8
Public administration	100.0	91.7	8.3	NA
		Share of stat	us group (%)	
Total, civilian labor force (with an industry)	100.0	100.0	100.0	100.0
Agriculture	1.4	1.2	1.6	4.6
Mining	0.6	0.7	0.4	0.5
Construction	6.5	5.9	6.2	16.3
Manufacturing	10.3	10.0	11.1	<b>12.5</b>
Wholesale/retail	14.4 4.9	14.8	12.8	11.7
Transportation/utilities Information	4.9 2.2	4.9 2.3	<b>5.5</b> 1.9	3.3 1.3
Financial activities	6.4	2.5 6.6	5.9	3.3
Business services	11.3	11.0	12.5	<b>14.0</b>
Educational/health services	22.5	23.3	23.0	7.2
Leisure/hospitality	10.2	9.8	10.1	17.6
Other services	4.9	4.6	6.1	7.7
Public administration	4.5	5.0	3.1	NA

Note: Figures in **boldface** under the "share of industry" indicates an over-representation of lawful immigrants or unauthorized immigrants compared with their share of the overall labor force. **Boldface** figures under the "share of status group" indicate an over-representation of lawful immigrants or unauthorized immigrants compared with the U.S. born population within each industry. See Methodology for rounding rules. NA indicates "not applicable."

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

# Estimates of unauthorized immigrants in the total population, labor force and foreign-born population, by state, 2014

In thousands (unless otherwise specified)

		Populatio		Labor force Unauthorized				Foreign born	
			thorized igrants			grants			% unauthorized
	Total	Estimate	% of total population	Total	Estimate	% of labor force	Total	born of state	of foreign-born population
Total U.S.	320,520	11,100	3.5	160,390	8,050	5.0	43,600	13.6	25.5
Alabama	4,860	65	1.3	2,220	40	1.8	160	3.3	39.5
Alaska	740	10	1.3	390	5	1.9	60	7.9	16.6
Arizona	6,770	325	4.9	3,120	210	6.6	950	14.1	34.5
Arkansas	2,980	70	2.4	1,360	50	3.5	150	5.0	47.5
California	39,050	2,350	6.0	19,380	1,750	9.0	10,700	27.4	21.9
Colorado	5,380	200	3.8	2,860	140	4.9	550	10.2	36.6
Connecticut	3,620	120	3.4	1,960	90	4.7	525	14.2	24.2
Delaware	940	25	2.7	480	20	4.0	85	8.8	31.0
District of Columbia	660	25	3.9	390	20	4.9	95	14.6	26.4
Florida	20,080	850	4.2	9,580	600	6.2	4,150	20.6	20.4
Georgia	10,140	375	3.6	4,880	250	5.2	1,050	10.1	35.6
Hawaii	1,430	45	3.2	700	30	4.6	250	17.3	18.2
Idaho	1,640	45	2.7	770	30	4.0	110	6.5	42.3
Illinois	12,940	450	3.5	6,740	350	5.0	1,850	14.1	24.4
Indiana	6,610	110	1.6	3,310	75	2.2	325	5.1	31.7
lowa	3,120	40	1.3	1,670	30	1.8	160	5.2	25.8
Kansas	2,920	75	2.5	1,480	50	3.4	210	7.3	34.7
Kentucky	4,420	50	1.1	2,060	35	1.7	160	3.6	30.0
Louisiana	4,660	70	1.5	2,200	50	2.2	190	4.1	35.5
Maine	1,330	<5	0.3	690	<5	0.4	50	3.7	8.4
Maryland	6,010	250	4.2	3,240	190	5.9	925	15.2	27.4
Massachusetts	6,780	210	3.1	3,740	150	4.0	1,100	16.0	19.4
Michigan	9,930	130	1.3	4,850	80	1.7	675	6.7	19.5
Minnesota	5,470	100	1.9	3,020	80	2.7	450	8.2	23.1
Mississippi	3,000	25	0.8	1,350	15	1.3	65	2.2	37.2

Continued on next page

# Estimates of unauthorized immigrants in the total population, labor force and foreign-born population, by state, 2014, continued

*In thousands (unless otherwise specified)* 

		Populatio		L	abor force		Foreign born		
			thorized igrants			horized grants			
			% of total		·	% of labor		% foreign- born of	% unauthorized of foreign-born
	Total		population	Total	Estimate	force	Total	state	population
Missouri	6,070	55	0.9	3,020	40	1.3	230	3.8	23.8
Montana	1,020	<5	0.3	520	<5	0.4	25	2.3	14.0
Nebraska	1,890	45	2.5	1,020	30	3.2	120	6.6	37.6
Nevada	2,860	210	7.2	1,440	150	10.4	575	19.8	36.2
New Hampshire	1,330	10	0.8	750	10	1.0	80	6.1	13.9
New Jersey	9,070	500	5.4	4,820	375	7.9	2,050	22.7	23.9
New Mexico	2,100	85	4.0	970	55	5.6	220	10.7	37.4
New York	19,900	775	3.9	10,190	600	5.9	4,600	23.1	16.8
North Carolina	9,980	350	3.4	4,850	240	5.0	800	7.9	43.3
North Dakota	740	<5	0.5	400	<5	0.7	30	3.7	12.7
Ohio	11,610	95	0.8	5,870	65	1.1	500	4.3	18.7
Oklahoma	3,890	95	2.4	1,840	65	3.4	230	5.9	40.5
Oregon	3,990	130	3.2	1,980	95	4.8	400	10.1	31.7
Pennsylvania	12,820	180	1.4	6,530	130	2.0	850	6.6	21.8
Rhode Island	1,060	30	2.9	560	20	4.0	140	13.5	21.4
South Carolina	4,840	85	1.8	2,330	60	2.6	230	4.8	36.6
South Dakota	850	5	0.6	460	<5	0.8	25	2.9	20.9
Tennessee	6,570	120	1.9	3,170	85	2.8	325	5.1	36.7
Texas	27,180	1,650	6.1	13,360	1,150	8.5	4,700	17.2	35.1
Utah	2,960	100	3.5	1,440	75	5.4	275	8.9	39.2
Vermont	630	<5	0.3	350	<5	0.3	25	4.1	8.3
Virginia	8,360	300	3.5	4,320	220	5.0	1,050	12.5	28.3
Washington	7,100	250	3.6	3,590	180	5.0	975	13.6	26.6
West Virginia	1,850	<5	0.2	810	<5	0.2	30	1.5	14.7
Wisconsin	5,770	80	1.3	3,080	60	1.9	275	5.0	27.0
Wyoming	580	5	1.0	310	<5	1.4	20	3.6	27.4

Note: Labor force estimates based on civilian labor force. Percentages calculated from unrounded numbers. See Methodology for rounding rules.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Detailed occupations with highest shares of unauthorized immigrant workers, 2014

In thousands (unless otherwise specified)

	Total			nmigrants U.Sborn	
Detailed occupation	workers	Workers	Share (%)	share (%)	share (%)
Total, Civilian labor force (with an occupation)	158,490	7,900	5	83	12
Drywall installers, ceiling tile installers and tapers	160	50	31	51	17
Miscellaneous agricultural workers	970	300	30	48	21
Roofers	240	70	29	57	13
Painters, construction and maintenance	650	170	26	56	18
Brickmasons, blockmasons and stonemasons	170	40	25	61	14
Maids and housekeeping cleaners	1,790	425	24	50	26
Carpet, floor and tile installers and finishers	170	40	24	61	14
Sewing machine operators	210	50	23	45	32
Construction laborers	2,000	425	21	64	15
Grounds maintenance workers	1,540	300	20	66	14
Food cooking machine operators	150	30	20	61	20
Dishwashers	390	75	19	69	12
Packaging and filling machine operators and tenders	310	60	19	60	21
Laundry and dry-cleaning workers	230	40	18	61	21
Packers and packagers, hand	570	100	18	62	21
Carpenters	1,320	220	17	70	14
Butchers and other meat, poultry and fish processing workers	280	45	17	67	17
Cooks	2,650	425	16	70	14
Bakers	250	35	14	68	18
Dining room and cafeteria attendants and bartender helpers	400	55	14	71	15
Cleaners of vehicles and equipment	430	55	13	73	14
Chefs and head cooks	440	55	13	64	24
Food preparation workers	1,070	130	12	76	13
Miscellaneous personal appearance workers	340	40	12	37	51
Automotive body repairers	150	15	11	75	14
Software developers, applications and systems software	1,150	120	10	61	29
Janitors and building cleaners	2,850	300	10	73	17
Other concentrated "unauthorized immigrant occupations"*	1,170	180	15	67	18
Other "unauthorized immigrant occupations" **	20,590	1,450	7	79	14
All other occupations	115,860	2,600	2	87	11

<sup>\*&</sup>quot;Other concentrated unauthorized immigrant occupations" have more than double the national percentage of workers who are unauthorized immigrants but do not have at least 100,000 workers nationally. \*\*"Other unauthorized immigrant occupations" have a higher percentage of workers who are unauthorized immigrants than the national average but less than double the national average.

Note: Individual occupations included in this table have at least 100,000 workers nationally and more than double the national share of unauthorized immigrants workers. Occupations ranked by share of unauthorized immigrants. Percentages calculated from unrounded numbers. See Methodology for rounding rules.

Source: Pew Research Center estimates based on augmented 2014 American Community (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Detailed industries with highest shares of unauthorized immigrant workers, 2014

In thousands (unless otherwise specified)

	Total	Unauthorize	d immigrants	U.Sborn	Lawful immigrant
Detailed industry	workers	Workers	Share (%)	share (%)	share (%)
Total, civilian labor force (with an industry)	157,970	7,900	5	83	12
Crop production	1,250	275	22	60	18
Private households	950	210	22	55	24
Landscaping services	1,420	300	21	64	15
Cut and sew apparel manufacturing	250	50	19	47	33
Services to buildings and dwellings	1,610	300	19	62	19
Dry cleaning and laundry services	340	60	18	58	24
Animal slaughtering and processing	510	85	17	64	19
Car washes	200	30	16	72	12
Bakeries, except retail	250	35	14	66	20
Seafood and other miscellaneous processing	200	30	14	71	15
Construction	10,200	1,300	13	76	12
Retail bakeries	180	25	12	71	17
Support activities for agriculture and forestry	150	20	12	72	16
Fruit and vegetable preserving and specialty food manufacturing	220	25	12	69	19
Animal production	570	65	12	80	8
Traveler accommodation	1,650	190	12	67	22
Specialty food stores	250	30	11	72	17
Fabric mills, except knitting	110	10	11	77	12
Groceries and related product wholesalers	850	90	10	75	15
Eating and drinking places	10,760	1,100	10	78	12
Other concentrated "unauthorized immigrant industries" *	340	45	13	71	16
Other "unauthorized immigrant industries" **	15,890	1,050	7	77	16
All other industries	109,820	2,600	2	87	11

<sup>\*&</sup>quot;Other concentrated unauthorized immigrant industries" have more than double the national percentage of workers who are unauthorized immigrants but do not have at least 100,000 unauthorized workers. \*\*"Other unauthorized immigrant industries" have a higher percentage of workers who are unauthorized immigrants than the national average but less than double the national average.

Note: Individual industries included in this table have at least 100,000 workers nationally and more than double the national share of unauthorized immigrants workers. Industries ranked by share of unauthorized immigrants. Percentages calculated from unrounded numbers. See Methodology for rounding rules.

Source: Pew Research Center estimates and based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Top occupations for unauthorized immigrants by state, 2014

% of a state's unauthorized immigrant workers in occupation

	#1 Largest o	ccupation	#2 Largest oc	cupation	#3 Largest oc	cupation
	Occupation	%	Occupation	%	Occupation	%
Total U.S.	Service	32	Construction	16	Production	11
Alabama	Service	26	Construction	26	Production	16
Alaska	Production	35	Service	25	Professional	15
Arizona	Service	36	Construction	17	Sales	8
Arkansas	Service	27	Construction	26	Production	20
California	Service	29	Production	12	Construction	12
Colorado	Service	35	Construction	23	Sales	8
Connecticut	Service	34	Construction	15	Professional	14
Delaware	Service	29	Professional	20	Transportation	12
District of Columbia	Service	46	Construction	16	Professional	11
Florida	Service	33	Construction	15	Sales	11
Georgia	Service	29	Construction	23	Production	13
Hawaii	Service	41	Sales	16	Transportation	9
Idaho	Farming,	35	Service	22	Construction	9
Illinois	Service	32	Production	19	Transportation	12
Indiana	Service	32	Production	19	Construction	10
Iowa	Production	25	Service	18	Professional	16
Kansas	Service	34	Construction	23	Production	11
Kentucky	Service	27	Production	15	Farming,	14
Louisiana	Service	34	Construction	29	Production	8
Maine	*	*	*	*	*	*
Maryland	Service	37	Construction	20	Professional	10
Massachusetts	Service	36	Professional	16	Construction	11
Michigan	Service	22	Professional	21	Production	15
Minnesota	Service	37	Professional	13	Production	12
Mississippi	Service	37	Construction	23	Production	14

Continued on next page

### Top occupations for unauthorized immigrants by state, 2014, continued

% of a state's unauthorized immigrant workers in occupation

	#1 Largest o	ccupation	#2 Largest oc	cupation	#3 Largest oc	cupation
	Occupation	%	Occupation	%	Occupation	%
Total U.S.	Service	32	Construction	16	Production	11
Missouri	Service	32	Professional	12	Construction	11
Montana	*	*	*	*	*	*
Nebraska	Construction	34	Service	23	Production	21
Nevada	Service	47	Construction	12	Sales	10
New Hampshire	Professional	34	Service	16	Office support	16
New Jersey	Service	29	Transportation	13	Construction	13
New Mexico	Service	40	Construction	21	Farming,	7
New York	Service	38	Construction	13	Sales	9
North Carolina	Service	27	Construction	23	Production	14
North Dakota	*	*	*	*	*	*
Ohio	Service	27	Professional	21	Production	11
Oklahoma	Service	29	Construction	29	Production	13
Oregon	Service	31	Farming,	18	Transportation	12
Pennsylvania	Service	26	Professional	16	Construction	15
Rhode Island	Service	40	Construction	13	Production	12
South Carolina	Construction	33	Service	31	Production	8
South Dakota	*	*	*	*	*	*
Tennessee	Service	29	Construction	23	Production	11
Texas	Service	32	Construction	23	Production	11
Utah	Service	30	Construction	18	Production	17
Vermont	*	*	*	*	*	*
Virginia	Service	36	Construction	20	Professional	9
Washington	Service	27	Farming,	17	Professional	11
West Virginia	*	*	*	*	*	*
Wisconsin	Service	34	Production	20	Transportation	11
Wyoming	*	*	*	*	*	*

Note: Data shown only for states with at least 5,000 unauthorized immigrants in the civilian labor force in 2014; other states shown as "\*". Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The occupation groups shown correspond to Census Bureau classifications for major occupation groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Occupations with highest shares of unauthorized immigrant workers by state, 2014

 $\%\ of\ occupation's\ civilian\ workforce\ in\ state\ that\ consists\ of\ \ unauthorized\ immigrants$ 

	#1 Largest o	ccupation	#2 Largest oc	cupation	#3 Largest oc	cupation
	Occupation	%	Occupation	%	Occupation	%
Total U.S.	Farming	26	Construction	15	Production	9
Alabama	Farming	10	Construction	8	Production	3
Alaska	Production	15	Farming	2	Service	2
Arizona	Farming	40	Construction	20	Service	12
Arkansas	Construction	16	Farming	15	Production	8
California	Farming	35	Construction	21	Production	21
Colorado	Farming	23	Construction	17	Service	10
Connecticut	Construction	14	Farming	13	Production	9
Delaware	Farming	14	Construction	7	Transportation	7
District of Columbia	Construction	35	Service	14	Production	8
Florida	Farming	33	Construction	18	Service	10
Georgia	Farming	27	Construction	23	Production	11
Hawaii	Farming	21	Production	11	Service	8
Idaho	Farming	43	Construction	6	Production	6
Illinois	Production	14	Construction	11	Service	9
Indiana	Farming	9	Construction	4	Service	4
Iowa	Farming	5	Production	5	Transportation	3
Kansas	Farming	16	Construction	13	Service	7
Kentucky	Farming	29	Construction	4	Production	3
Louisiana	Farming	23	Construction	9	Service	4
Maine	*	*	*	*	*	*
Maryland	Farming	26	Construction	24	Service	12
Massachusetts	Construction	9	Production	9	Service	8
Michigan	Farming	25	Production	3	Service	2
Minnesota	Farming	13	Service	6	Production	4
Mississippi	Construction	4	Farming	3	Service	3

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# Occupations with highest shares of unauthorized immigrant workers by state, 2014, continued

% of occupation's civilian workforce in state that consists of unauthorized immigrants

	#1 Largest o	ccupation	#2 Largest oc	cupation	#3 Largest oc	cupation
Total U.S.	Occupation Farming	% 26	<b>Occupation</b> Construction	% 15	<b>Occupation</b> Production	% 9
Missouri	Farming	5	Construction	3	Service	2
Montana	*	*	*	*	*	*
Nebraska	Construction	18	Production	9	Farming	5
Nevada	Farming	43	Construction	23	Service	18
New Hampshire	Production	2	Transportation	2	Professional	1
New Jersey	Farming	28	Construction	22	Production	19
New Mexico	Farming	37	Construction	18	Service	10
New York	Construction	16	Service	11	Production	11
North Carolina	Farming	39	Construction	22	Production	9
North Dakota	*	*	*	*	*	*
Ohio	Farming	11	Construction	2	Service	2
Oklahoma	Farming	17	Construction	14	Production	6
Oregon	Farming	37	Transportation	8	Production	8
Pennsylvania	Farming	19	Construction	6	Service	3
Rhode Island	Farming	24	Construction	10	Production	7
South Carolina	Farming	27	Construction	17	Service	4
South Dakota	*	*	*	*	*	*
Tennessee	Construction	12	Farming	11	Service	4
Texas	Construction	28	Farming	26	Production	17
Utah	Farming	31	Construction	18	Production	14
Vermont	*	*	*	*	*	*
Virginia	Farming	20	Construction	19	Service	10
Washington	Farming	45	Production	8	Service	8
West Virginia	*	*	*	*	*	*
Wisconsin	Farming	13	Production	4	Service	4
Wyoming	*	*	*	*	*	*

Note: Data shown only for states with at least 5,000 unauthorized immigrants in the civilian labor force in 2014; other states shown as "\*". Occupations with fewer than 5,000 workers in the state are not ranked. Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The occupation groups shown correspond to the Census Bureau classifications for Major Occupation Groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey data (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Top industries for unauthorized immigrants by state, 2014

% of a state's unauthorized immigrant workers in industry

	<b>#1</b> Largest industry		#2 Largest industry		#3 Largest industry	
	Industry	%	Industry	%	Industry	%
Total U.S.	Leisure/hospitality	18	Construction	16	Business services	14
Alabama	Construction	26	Manufacturing	20	Leisure/hospitality	19
Alaska	Manufacturing	50	Leisure/hospitality	25	Business services	11
Arizona	Business services	19	Construction	17	Leisure/hospitality	15
Arkansas	Construction	24	Manufacturing	22	Leisure/hospitality	14
California	Leisure/hospitality	16	Manufacturing	15	Business services	14
Colorado	Construction	25	Leisure/hospitality	23	Business services	13
Connecticut	Business services	17	Leisure/hospitality	17	Construction	15
Delaware	Business services	20	Leisure/hospitality	19	Wholesale/retail	17
District of Columbia	Leisure/hospitality	29	Business services	24	Construction	17
Florida	Leisure/hospitality	18	Construction	17	Business services	15
Georgia	Construction	24	Manufacturing	15	Leisure/hospitality	14
Hawaii	Leisure/hospitality	31	Wholesale/retail	20	Business services	14
Idaho	Agriculture	35	Wholesale/retail	16	Manufacturing	14
Illinois	Manufacturing	23	Leisure/hospitality	21	Business services	15
Indiana	Manufacturing	28	Leisure/hospitality	22	Business services	12
Iowa	Manufacturing	39	Wholesale/retail	12	Business services	10
Kansas	Construction	21	Leisure/hospitality	19	Manufacturing	17
Kentucky	Manufacturing	20	Leisure/hospitality	19	Agriculture	16
Louisiana	Construction	32	Leisure/hospitality	15	Business services	12
Maine	*	*	*	*	*	*
Maryland	Construction	21	Business services	18	Leisure/hospitality	15
Massachusetts	Business services	19	Leisure/hospitality	16	Educ/health	15
Michigan	Manufacturing	26	Business services	16	Leisure/hospitality	16
Minnesota	Leisure/hospitality	21	Manufacturing	18	Business services	15
Mississippi	Leisure/hospitality	28	Construction	23	Manufacturing	16

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### Top industries for unauthorized immigrants by state, 2014, continued

% of a state's unauthorized immigrant workers in industry

	<b>#1</b> Largest industry		#2 Largest industry		#3 Largest industry	
	Industry	%	Industry	%	Industry	%
Total U.S.	Leisure/hospitality	18	Construction	16	Business services	14
Missouri	Leisure/hospitality	22	Educ/health	15	Manufacturing	15
Montana	*	*	*	*	*	*
Nebraska	Construction	33	Manufacturing	27	Leisure/hospitality	13
Nevada	Leisure/hospitality	38	Construction	14	Business services	13
New Hampshire	Educ/health	24	Manufacturing	22	Construction	10
New Jersey	Business services	16	Leisure/hospitality	15	Wholesale/retail	14
New Mexico	Leisure/hospitality	29	Construction	20	Business services	11
New York	Leisure/hospitality	20	Wholesale/retail	14	Construction	13
North Carolina	Construction	24	Leisure/hospitality	17	Manufacturing	15
North Dakota	*	*	*	*	*	*
Ohio	Business services	18	Manufacturing	17	Leisure/hospitality	16
Oklahoma	Construction	27	Leisure/hospitality	19	Manufacturing	13
Oregon	Agriculture	21	Leisure/hospitality	20	Manufacturing	15
Pennsylvania	Business services	17	Construction	16	Manufacturing	13
Rhode Island	Manufacturing	20	Leisure/hospitality	18	Educ/health	15
South Carolina	Construction	35	Leisure/hospitality	18	Business services	12
South Dakota	*	*	*	*	*	*
Tennessee	Construction	24	Leisure/hospitality	20	Manufacturing	14
Texas	Construction	24	Leisure/hospitality	16	Business services	13
Utah	Manufacturing	19	Construction	19	Leisure/hospitality	19
Vermont	*	*	*	*	*	*
Virginia	Construction	21	Leisure/hospitality	20	Business services	17
Washington	Agriculture	18	Leisure/hospitality	16	Wholesale/retail	14
West Virginia	*	*	*	*	*	*
Wisconsin	Manufacturing	26	Leisure/hospitality	22	Business services	16
Wyoming	*	*	*	*	*	*

Note: Data shown only for states with at least 5,000 unauthorized immigrants in the civilian labor force in 2014; other states shown as "\*". Percentages calculated from unrounded numbers. Rankings based on unrounded percentages. The industry groups shown correspond to Census Bureau classifications for major industry groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

### Industries with highest shares of unauthorized immigrant workers by state, 2014

 $\%\ of\ industry's\ civilian\ workforce\ in\ state\ that\ consists\ of\ unauthorized\ immigrants$ 

	<b>#1</b> Largest industry		#2 Largest industry		#3 Largest industry	
	Industry	%	Industry	%	Industry	%
Total U.S.	Agriculture	17	Construction	13	Leisure/hospitality	9
Alabama	Construction	7	Agriculture	5	Leisure/hospitality	4
Alaska	Manufacturing	27	Leisure/hospitality	5	Mining	3
Arizona	Agriculture	33	Construction	16	Other services	11
Arkansas	Construction	13	Agriculture	8	Other services	6
California	Agriculture	31	Construction	17	Manufacturing	14
Colorado	Construction	15	Agriculture	12	Leisure/hospitality	10
Connecticut	Agriculture	14	Construction	12	Leisure/hospitality	9
Delaware	Leisure/hospitality	9	Business services	8	Other services	5
District of Columbia	Construction	29	Leisure/hospitality	14	Business services	5
Florida	Agriculture	27	Construction	15	Mining	11
Georgia	Construction	19	Agriculture	16	Other services	8
Hawaii	Manufacturing	10	Leisure/hospitality	8	Agriculture	8
ldaho	Agriculture	27	Manufacturing	6	Wholesale/retail	5
Illinois	Leisure/hospitality	11	Construction	10	Manufacturing	10
Indiana	Leisure/hospitality	5	Construction	4	Agriculture	4
Iowa	Manufacturing	5	Business services	3	Leisure/hospitality	2
Kansas	Construction	11	Agriculture	8	Leisure/hospitality	7
Kentucky	Agriculture	17	Construction	4	Leisure/hospitality	3
Louisiana	Agriculture	15	Construction	9	Other services	4
Maine	*	*	*	*	*	*
Maryland	Construction	18	Agriculture	14	Leisure/hospitality	10
Massachusetts	Construction	8	Leisure/hospitality	7	Manufacturing	6
Michigan	Agriculture	15	Business services	3	Leisure/hospitality	3
Minnesota	Leisure/hospitality	6	Agriculture	6	Information	5
Mississippi	Construction	4	Leisure/hospitality	3	Agriculture	2

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# Industries with highest shares of unauthorized immigrant workers by state, 2014, continued

% of industry's civilian workforce in state that consists of unauthorized immigrants

	<b>#1</b> Largest industry		#2 Largest industry		#3 Largest industry	
	Industry	%	Industry	%	Industry	%
Total U.S.	Agriculture	17	Construction	13	Leisure/hospitality	9
Missouri	Leisure/hospitality	3	Construction	3	Manufacturing	2
Montana	*	*	*	*	*	*
Nebraska	Construction	14	Manufacturing	8	Leisure/hospitality	5
Nevada	Agriculture	30	Construction	22	Other services	17
New Hampshire	Transport/utilities	2	Manufacturing	2	Information	2
New Jersey	Agriculture	21	Construction	18	Other services	14
New Mexico	Agriculture	26	Construction	16	Leisure/hospitality	13
New York	Construction	13	Other services	13	Leisure/hospitality	12
North Carolina	Agriculture	26	Construction	18	Leisure/hospitality	8
North Dakota	*	*	*	*	*	*
Ohio	Agriculture	6	Business services	2	Construction	2
Oklahoma	Construction	12	Agriculture	11	Leisure/hospitality	7
Oregon	Agriculture	27	Leisure/hospitality	8	Manufacturing	6
Pennsylvania	Agriculture	12	Construction	5	Business services	3
Rhode Island	Construction	9	Manufacturing	7	Other services	6
South Carolina	Agriculture	18	Construction	14	Leisure/hospitality	4
South Dakota	*	*	*	*	*	*
Tennessee	Construction	10	Mining	8	Agriculture	8
Texas	Construction	25	Agriculture	18	Other services	15
Utah	Agriculture	19	Construction	14	Leisure/hospitality	11
Vermont	*	*	*	*	*	*
Virginia	Construction	16	Leisure/hospitality	10	Agriculture	10
Washington	Agriculture	33	Leisure/hospitality	8	Construction	6
West Virginia	*	*	*	*	*	*
Wisconsin	Agriculture	6	Leisure/hospitality	5	Business services	3
Wyoming	*	*	*	*	*	*

Note: Data shown only for states with at least 5,000 unauthorized immigrants in the civilian labor force in 2014; other states shown as "\*". Industries with fewer than 5,000 workers in the state are not ranked. Percentages calculated from unrounded numbers. Ranking based on unrounded percentages. The industry groups shown correspond to Census Bureau classifications for major industry groups. The names have been shortened for display purposes. See Methodology for full Census Bureau classifications.

Source: Pew Research Center estimates based on augmented 2014 American Community Survey (IPUMS).

<sup>&</sup>quot;Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"

# Estimated total of unauthorized immigrant workers declined in eight states and rose in seven, 2009-2014

In thousands

	2014	2009	Change
New Jersey	375	350	35
Pennsylvania	130	95	35
Virginia	220	190	20
Washington	180	160	20
Minnesota	80	65	20
Louisiana	50	35	10
Utah	75	65	10
Rhode Island	20	30	-5
South Carolina	60	70	-10
Kansas	50	65	-15
Nevada	150	160	-15
Alabama	40	55	-15
Georgia	250	300	-35
Illinois	350	375	-45
California	1,750	1,850	-95
Total U.S.	8,050	8,100	n.s.

Note: Each number in this table is rounded based on a set of rules specified in Methodology. Subtracting the 2009 population total from the 2014 population total for any state may produce a different result than shown in the change column because of this rounding. The number in the change column is the more precise estimate of difference. Ranking based on unrounded numbers. For states, only significant changes based on 90% confidence interval are shown. The symbol "n.s." means the change is not statistically different from zero. Labor force estimates based on civilian labor force.

Source: Pew Research Center estimates for 2009-2014 based on augmented American Community Survey (IPUMS).

"Size of U.S. Unauthorized Immigrant Workforce Stable After the Great Recession"