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Carmel, Indianapolis and Fort Wayne show

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biggest 2016 population gains

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Carmel, Indianapolis and Fort Wayne show biggest 2016 population gains

Occupation Assignment Engine helps fill knowledge gaps by Thea Evans and Carol O. Rogers

### Inside this Issue July-August 2017 vol. 18, no. 4

by Matt Kinghorn

With a population of 855,164 residents, Indianapolis was the nation's 15th-largest city in 2016.

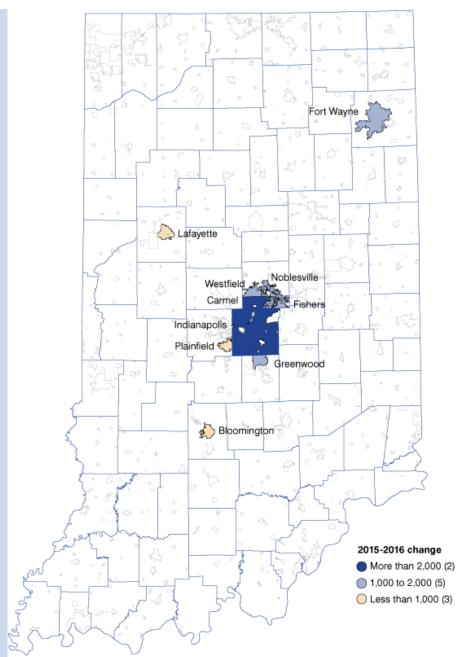
Seven Indiana cities posted annual population increases of more than 1,000 residents in 2016, according to U.S. Census Bureau estimates.1

Carmel led with an addition of 2,977 people last year, followed by gains in Indiana's two largest cities. Indianapolis added an estimated 2,869 people, and Fort Wayne grew by 1,682 residents from 2015 to 2016.

More suburban Indianapolis communities claimed the next five spots: Noblesville, with an increase of 1,562 residents in 2016; Westfield, 1,285 residents; Fishers, 1,147 residents; Greenwood, 1,073 residents; and Plainfield, 834 residents.

Lafayette, which grew by 700 residents, and Bloomington, which had 672 additional people, rounded out the top 10 (see Figure 1).

Figure 1: Cities with largest population growth, 2015-2016



Source: IBRC, using U.S. Census Bureau data

Among Indiana cities or towns with at least 5,000 residents, Whitestown in Boone County was the state's fastest-growing community in 2016 with a growth rate of 9.2 percent. This marks the sixth consecutive year that Whitestown has ranked as the state's fastest-growing locale. Over that span, Whitestown's population has more than doubled from 3,147 in 2010 to 6,590 in 2016.

For the second year in a row, McCordsville in Hancock County was Indiana's second-fastest-growing place, with a growth rate of 7.2 percent in 2016, followed by Bargersville in Johnson County (4.2 percent growth), and Hamilton County's Westfield (3.6 percent) and Carmel (3.4 percent).

In all, 13 of the 15 fastest-growing cities or towns in the state in 2016 were in suburban counties in the Indy metropolitan area (see **Figure 2**). The only places outside Central Indiana to make the top 15 were the Lake County communities of Winfield (2.9 percent) and St. John (1.9 percent).

Figure 2: Indiana's fastest-growing cities and towns, 2015-2016



# Indiana's largest cities

With a population of 855,164 residents, Indianapolis was the nation's 15th-largest city in 2016, ranking just behind Columbus, Ohio, (860,090) and ahead of Fort Worth, Texas (854,113).

Indianapolis had seen something of a population growth surge earlier in this decade, adding an average of 6,775 residents per year from 2010 to 2014, but growth in the Circle City has slowed of late, with an average annual gain of roughly 3,200 residents over the past two years. Indianapolis grew by an average of about 3,800 residents each year from 2000 to 2010.

Fort Wayne has seen remarkably steady population growth over the past six years. Indiana's second-largest city added 1,682 residents in 2016 to bring its total population to an estimated 264,488. Fort Wayne's growth in 2016 was just a shade lower than its average annual growth of 1,739 per year from 2010 to 2015.

Evansville (population 119,477) and South Bend (101,735) are the only other Indiana cities with a population above 100,000 residents. These two communities have experienced opposing growth trends so far this decade.

Evansville added an average of 139 residents per year from 2010 to 2013 but has seen an average annual decline of 354 residents over the past three years. 2016 marked Evansville's largest drop over this stretch, with a loss of 561 residents.

South Bend, by contrast, had essentially flat population change from 2010 to 2013 but has added an average of 236 residents per year over the past three years.

Before posting a nearly 3,000-person gain in population last year, Carmel, the state's fifth-largest city, added on average 1,660 residents per year from 2010 to 2015. **Table 1** shows the state's 10 largest cities, along with their population change since 2015.

Table 1: Indiana's 10 largest cities, 2016

		Change since 2015	
City	2016	Number	Percent
Indianapolis	855,164	2,869	0.3%
Fort Wayne	264,488	1,682	0.6%
Evansville	119,477	-561	-0.5%
South Bend	101,735	204	0.2%
Carmel	91,065	2,977	3.4%
Fishers	90,127	1,147	1.3%
Bloomington	84,465	672	0.8%
Hammond	77,134	-512	-0.7%
Gary	76,424	-692	-0.9%
Lafayette	71,782	700	1.0%

Source: IBRC, using U.S. Census Bureau data

Thirteen of the state's 20 largest cities posted population gains in 2016. Of this group, the four fastest-growing communities were in the Indianapolis metro area, led by Carmel (3.4 percent growth in 2016), Noblesville (2.7 percent), Greenwood (1.9 percent) and Fishers (1.3 percent). Other fast-growing larger cities include Lafayette (1.0 percent), Mishawaka (1.0 percent), Bloomington (0.8 percent) and Jeffersonville (0.8 percent).

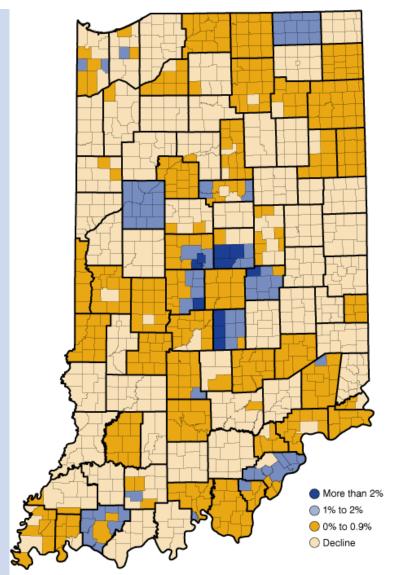
At the other end of the spectrum, Evansville, Gary and Hammond had the state's largest declines in 2016.

For Gary, the decline in population of 692 residents in 2016 was the continuation of a sharp, yearslong population slide. According to the U.S. Census Bureau, Gary's population has fallen by more than 25 percent in the past 16 years, from 102,746 at the time of the 2000 census to an estimated 76,424 in 2016. Gary was Indiana's fifth-largest city in 2000 but ranked as the state's ninth-largest community in 2016. Hammond's population dropped by 512.

## **Townships**

In 2016, 480 of Indiana's 1,010 townships either held steady or added population (see **Figure 3**). More than half of the state's townships registered a loss last year, with 54 of them declining at a rate of 1 percent or more.

Figure 3: Percent change in township population, 2015-2016



Source: IBRC, using U.S. Census Bureau data

For more data, visit the Population topic page at STATS Indiana.

### Notes

1. The Census Bureau adjusts its population estimates for sub-county areas each year to account for city and town boundary changes (e.g., annexations). Therefore, boundary changes do not contribute to any population changes reported in this article.

Next: Occupation Assignment Engine helps fill knowledge gaps

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# Inside this Issue

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# Occupation Assignment Engine helps fill knowledge gaps

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Data from the Indiana Public Licensing Agency were useful in developing the new Occupation Assignment Engine, which assigns occupations to employment records.

Improving the quality of workforce data has been a years-long focus of the Research and Analysis Division of the Indiana Department of Workforce Development. Working with the Indiana Business Research Center (IBRC), they have developed an Occupation Assignment Engine, which uses advanced statistical methods, models and processes to assign occupations to payroll employment records.

Today, we can report significant success in utilizing Public Licensing Agency (PLA) records as one of the more important inputs to the engine (see **Table 1**). Since, according to the PLA, nearly one in seven Hoosier workers have a professional or occupational license, we began integrating that licensure data with the result that fully 10 percent of the payroll wage records can be matched with both an occupation and a PLA license or certification.

**Table 1: PLA license statistics** 

Description	
Individuals with an active Indiana PLA license	
PLA licensed individuals on an Indiana payroll	
Percent of PLA license holders on an Indiana payroll	
PLA licensed individuals with an SOC occupation assignment for at least one quarter	
Percent of individuals with more than one active license	

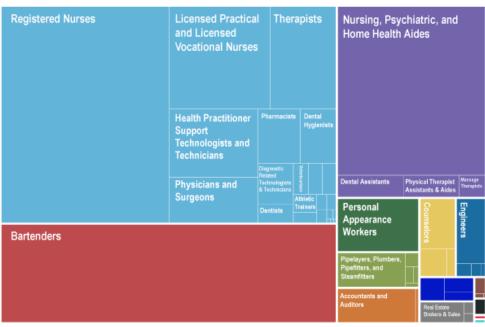
Source: Indiana Business Research Center

A significant number of occupations have been assigned in the health care fields, including registered nurses, physicians and surgeons, and nursing, psychiatric and home health aides. Other occupations that were successfully assigned based on licensure included bartenders, accountants, engineers, plumbers, counselors and personal appearance workers (such as hairdressers and barbers).

Note that work is underway using a separate source for attorneys and we hope to obtain license data for educators in the near future; neither of those license types are included in the PLA database. We have also been successful in matching public employment job titles to employment records and assigning an occupation code. We will cover that work in a future article.

The "tree map" in Figure 1 shows the relative proportion of the license-based occupations.

Figure 1: Occupation assignments based on PLA data



View interactive version.

Source: Indiana Business Research Center

### Determining the dates a license is active

The process to use an individual's license as a proxy for their occupation began with cleaning the PLA database. Many licensing boards that provide data to PLA have their own license status categories, so we developed a condensed, standardized list of license status values based upon information available from the licensing boards. That standard list of status values was ranked in order of importance to indicate which license should be given priority in the occupation assignment process if there were several licenses held by the same individual (see **Table 2**). For example, the priority ranking will consider a home inspector license with an *active status* rank to be of a higher priority than a real estate agent license with an *expired status* rank from the same individual.

Table 2: License status values

Standardized license status	Priority rank	Non-standard status values assigned to category	
Active	1	Active	
Conditionally active	2	Conditional, Probation, Probation/Referral, Valid to Practice While Reviewed	
Superseded	3	Superseded	
Not practicing	4	Current/Not Practicing, Retired	
Expired	5	Dead, Expired, Expired/Holding Application, Expired/Non-Renewable, Inactive, Inactive/Expired, Inactive/Probation, Null and Void, Probation/Expired, Referral/Expired, Registry History, Storage, Unassigned/Expired, Voluntary Surrender	
Suspended	6	Emergency Suspension, Suspended	
Revoked	7	Finding, Rescinded, Revoked	
Not awarded	8	Abandoned Application, Application Denied, Cancelled, Deleted Application, Failed Exam, Renewal Denied, Withdrawn Application	
Pending application	9	Pending Application, Reinstatement Pending	
Unassigned	99	Unassigned	

Source: Indiana Business Research Center

### **Assigning a Standard Occupation Code**

The occupations associated with each type of license and the industries of employment associated with each occupation were evaluated. If an individual holding an active license was employed in an industry expected with their license, and there was only one potential occupation associated with that license, the individual was assigned that occupation.

If there were several potential occupations that were similar based upon the license and industry of employment, then the individual was assigned a less-specific occupation that included all of the more specific detailed occupations. For example, an individual with an active physician license will have a list of seven potential occupation codes associated with that license:

- 29-1061 Anesthesiologists
- 29-1062 Family and General Practitioners
- 29-1063 Internists, General
- 29-1064 Obstetricians and Gynecologists
- 29-1065 Pediatricians, General
- 29-1066 Psychiatrists
- 29-1069 Physicians and Surgeons, All Other

If that same individual works in the general medical and surgical hospitals industry, they will have an industry match to all seven of the potential occupation codes. While it is not possible to determine which detailed occupation they hold based on the available information, it is possible to assign them a general occupation code (29-1060: Physicians and Surgeons) that includes all of the potential detailed occupation codes.

For the remaining unassigned active license holders, we calculated annualized wage data to eliminate potential occupation assignments with non-likely wages. The occupation with the closest average salary range based upon the occupation and industry combination was assigned to the individual.

For more information on the Occupation Assignment Engine developed by the IBRC, email ibrc@iupui.edu and ask for Carol Rogers or Thea Evans.

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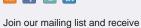
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