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Which Hoosiers are successfully navigating the unemployment system?

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During periods of economic downturns and personal misfortune, unemployment services can offer a helping hand in regaining a foothold in the employment market for many Hoosiers. To better understand the composition of Hoosiers taking advantage of such services, this article analyzes a snapshot of Hoosiers accepting unemployment benefits over a 10-year period.

The data are longitudinal and include individual de-identified Indiana unemployment claimant data that are linked to wage records. Aggregated results are provided (and any incomplete observations were discarded). The data include observations from the first quarter of 2006 through the fourth quarter of 2015. (Data prior to 2006 were incomplete, and while data post-2015 were available, insufficient time had elapsed to allow for re-entry into the workplace.)

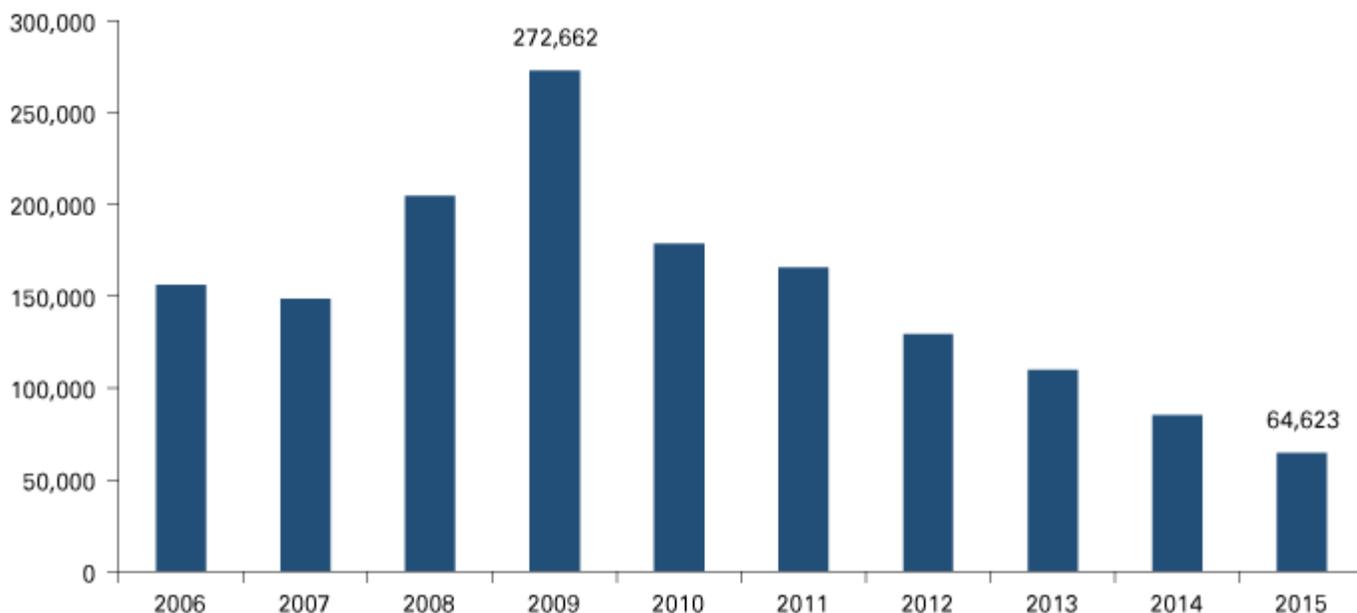
This information is based on individuals applying for Indiana unemployment insurance (UI) claim benefits. A person may appear multiple times in the claims

data during this period. Each instance of an individual having a UI claim was considered a “unique episode.” Each claims episode was then matched to the individual’s wages before and after the claims episode and each matched claims episode is considered a unique observation.

Individuals without wage matches on both sides of the UI claim time period were excluded from the study. This process undoubtedly excludes those unable to find work after receiving UI benefits. It also excludes individuals coming into Indiana for work, leaving the state for employment or becoming self-employed. The matched wage records only include wages of individuals employed by companies covered by unemployment insurance. Wage data for the self-employed and those outside Indiana were unattainable and beyond the reach of this analysis.

Unsurprisingly, the observation counts spike in response to the recession of 2008-2009 and generally decrease after that time (see **Figure 1**).

Figure 1: Indiana unemployment claim observations for those successfully moving through the system



Note: This analysis only includes those individuals with wage matches on both sides of the UI claim.

Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

Figure 2 shows the home county of these claimants. Marion County made up 14

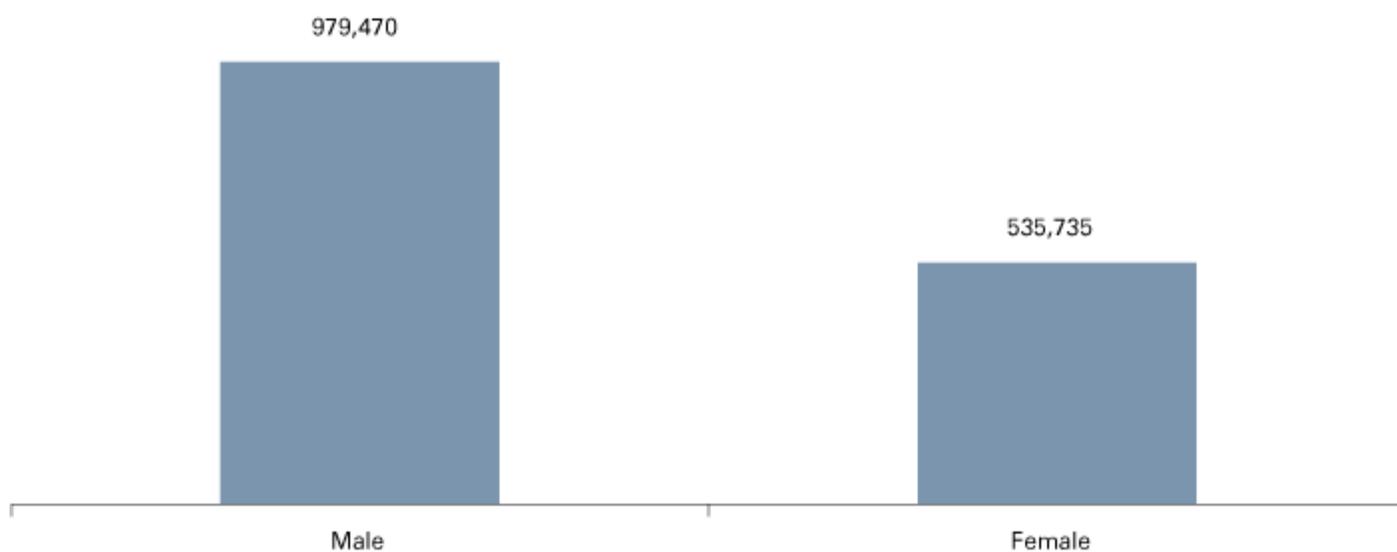
percent of the total with 214,183 claimant observations. Allen County was home to 6 percent of the total claimants in this data set.

Figure 2: Home county of claimants

Demographics

Nearly 65 percent of those successfully moving through the system (from work to unemployment and back to work) were male and 35 percent were female (see **Figure 3**). The remaining 0.03 percent of claimants were other/no response/incomplete or erroneous data.

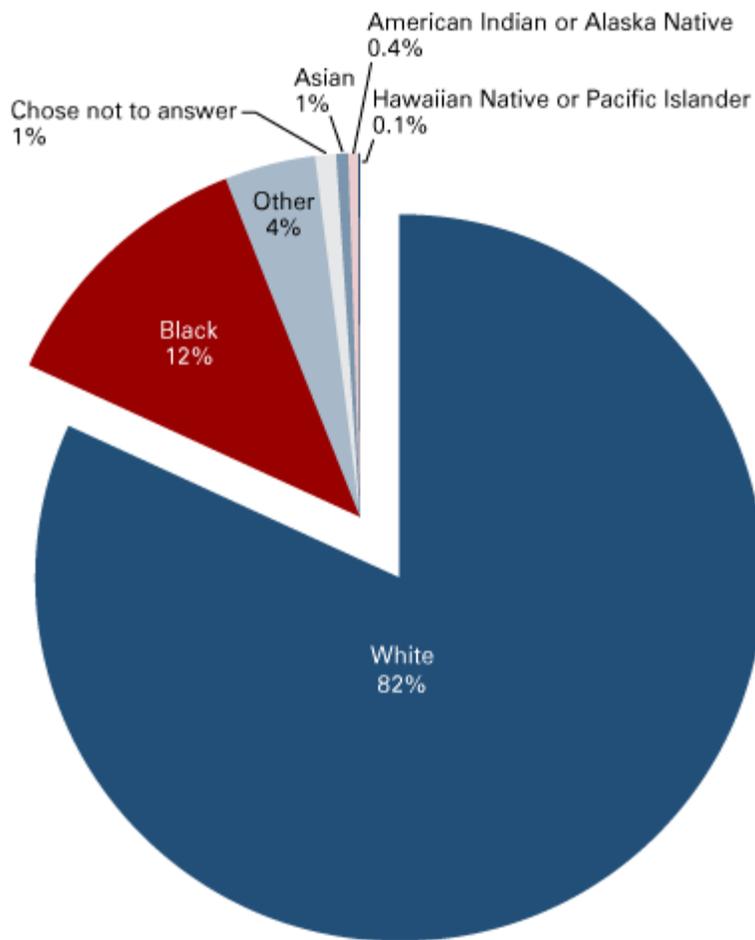
Figure 3: Gender of claimants



Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

As shown in **Figure 4**, 82 percent of the claimants were white and 12 percent were black. (For comparison, whites made up 86 percent of the total Indiana population in 2015, compared to 10 percent for blacks.)

Figure 4: Race of claimants

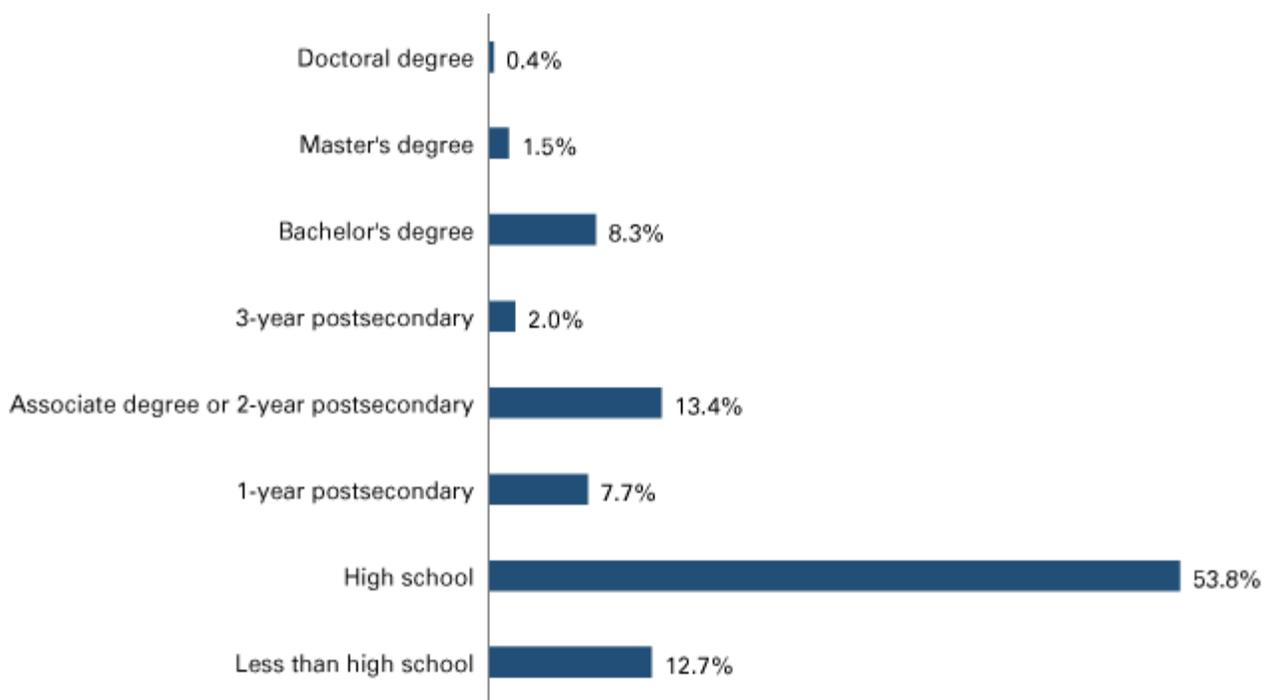


Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

Education

The majority of individuals receiving benefits and successfully finding employment afterward had a high school diploma (see **Figure 5**). This finding is consistent with prior studies, which have consistently shown lower unemployment rates associated with increasing levels of education. Approximately 90 percent of Hoosiers claiming unemployment benefits and finding subsequent work in Indiana had less than a bachelor's degree.

Figure 5: Educational attainment level of claimants



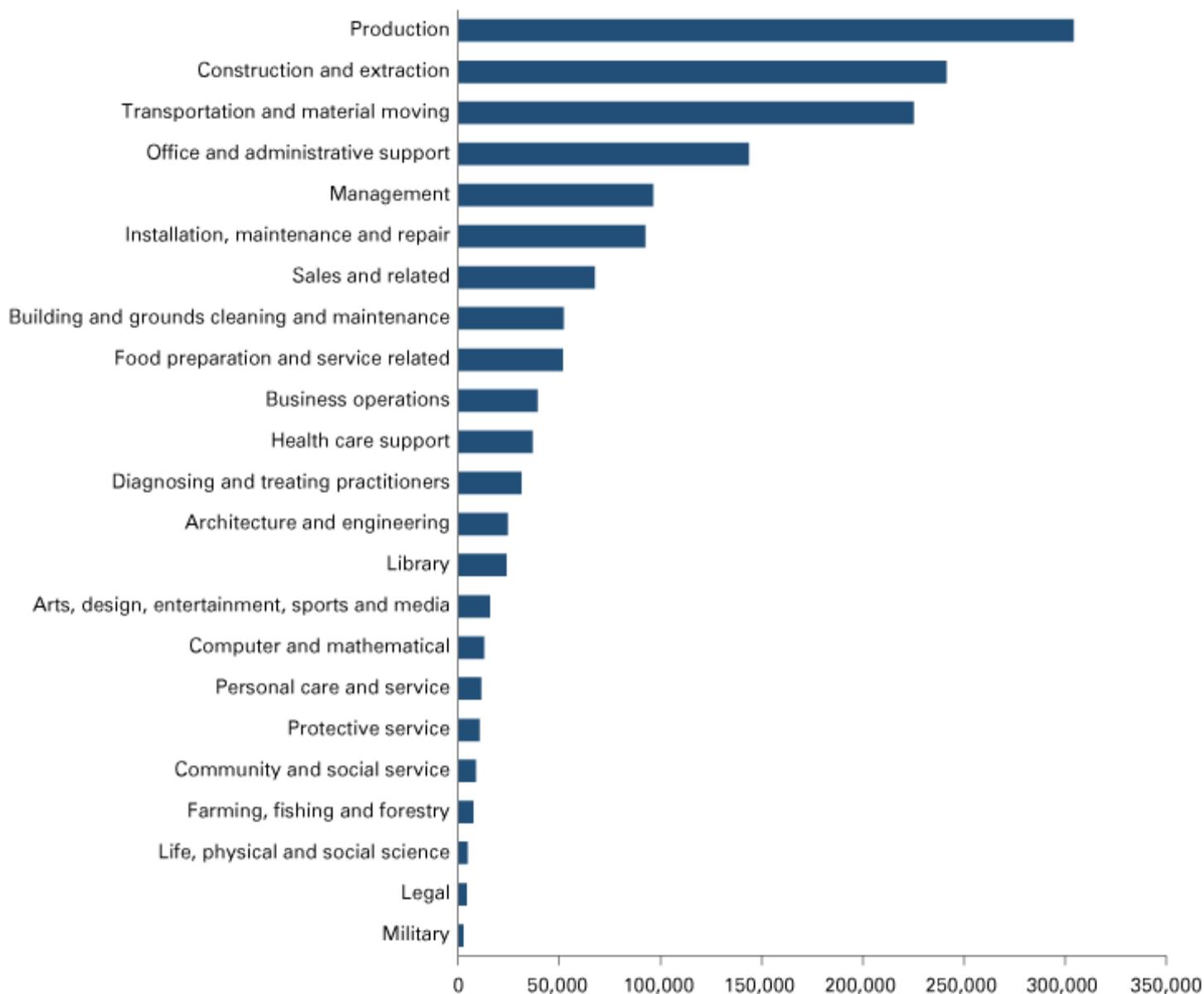
Note: There are 3,088 observations lacking attainment data.

Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

Occupation and industry

Using two-digit occupational (SOC) and industry (NAICS) codes, a majority of the prior occupations of claimants tended to concentrate in lower-skilled positions in the retail and wholesale industry sectors (see **Figure 6** and **Figure 7**). However, this is not universal as some skilled positions, particularly in manufacturing and construction, were also heavily hit in the last recession.

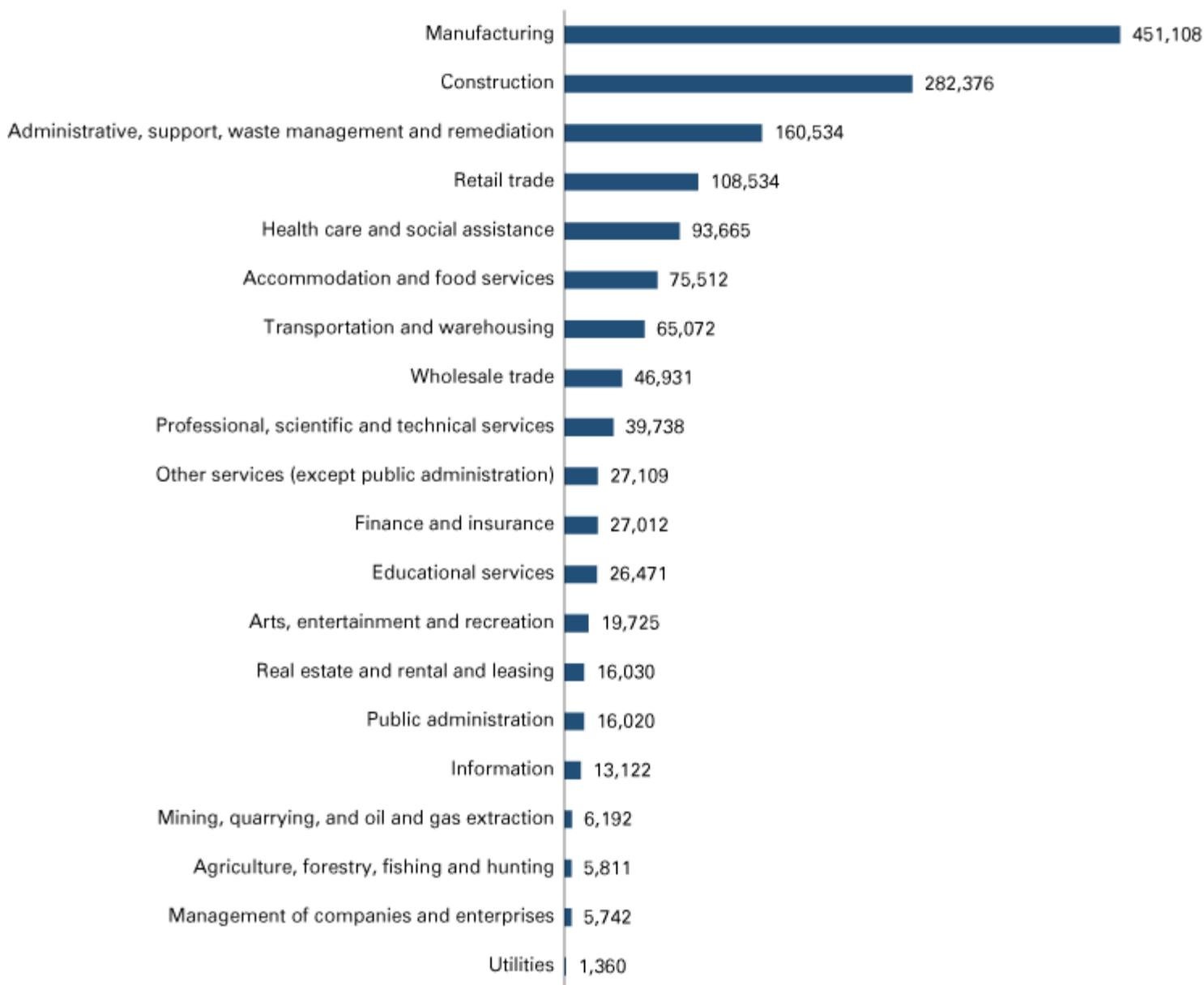
Figure 6: Occupation before unemployment



Note: There are 8,582 observations lacking occupation data.

Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

Figure 7: Industry before unemployment

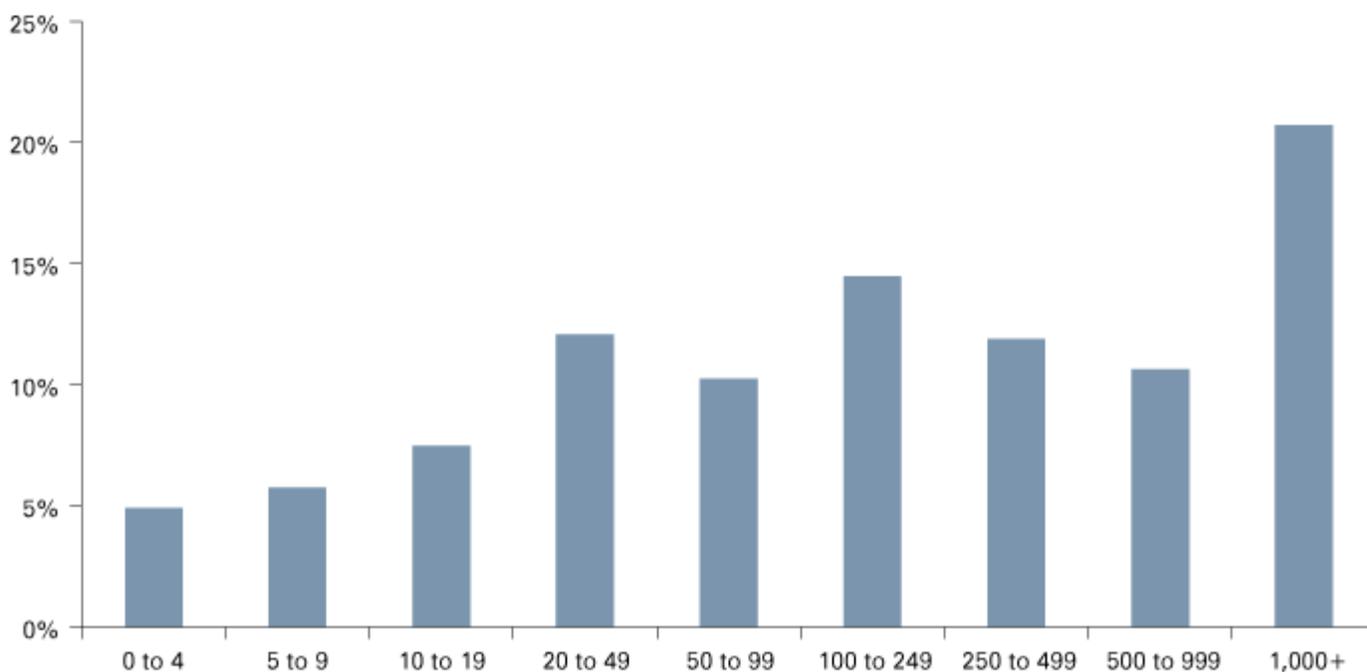


Note: There are 27,658 observations lacking industry data.

Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

The size of firm contributing to the unemployment picture is fairly uniform (see **Figure 8**). The largest firms (those with 1,000 employees or more) contributed the largest number of unemployed.

Figure 8: Firm size of employer prior to unemployment



Source: Data provided by the Indiana Department of Workforce Development, in cooperation with the Indiana Management Performance Hub (MPH)

Interesting numbers are found in retention data. Of the Hoosiers collecting unemployment benefits and subsequently finding work in Indiana, 32 percent return to the very employer from which they separated. Additionally, 56 percent of claimants remain in the same industry sector.

Summary

The data indicate a diverse population of people in Indiana have benefited from unemployment benefits over the years. However, if one consistent theme remains, it is that those with more skills and higher education have done better in navigating the unemployment process. Since the labor market continues to be volatile, the only assurance one can have of success is to acquire and maintain their skills. Education and skills are still highly valued in the workplace.

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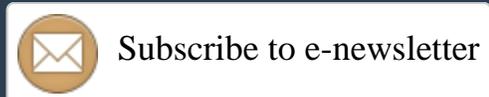
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Education required, but at what level?

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There is much in the news about employers struggling to find skilled workers. And there are many workers and students uncertain about what skills and educational requirements they should focus on. Labor market researchers throughout government work hard to convey that information through a variety of tools and resources from federal and state agencies and regional workforce boards based on occupation (job title) and the requirements for that occupation. This article will focus on the determination of education requirements for those occupations.

Saying “this job requires a certificate in welding” or a “bachelor’s degree in business” is, believe it or not, easier said than done. Companies that employ people generally set out requirements in their job postings, but those requirements may not actually be “required” if the people being hired have skills (soft and hard) that the employer wants and the company is willing to train.

There are actually multiple sources for data on education requirements by occupation—the U.S. Bureau of Labor Statistics, the U.S. Department of Labor, the U.S. Census Bureau’s various surveys, the job postings themselves, as well as

independent surveys of businesses.

The intent and collection methods behind each of these sources is important when comparing the often coinciding, but sometimes conflicting, education requirements. To that end, we have delved deep into the methods and results of each of the major sources of education requirements by occupation and produced an interactive tool to help users understand the differences among the sources in a coherent way (see **Figure 1**).

Figure 1: Interactive graphic

Education requirements by occupation and data source

National government data



Bureau of Labor Statistics (BLS) data represent the *SINGLE* most commonly required minimum level of education nationally for each occupation

O*NET data represent the most commonly required *LEVELS* of education nationally for each occupation

Unexpected Error

An unexpected error occurred. If you continue to receive this error please contact your Tableau Server Administrator.

SyntaxError: JSON Parse error: Unterminated string
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Employer requirements

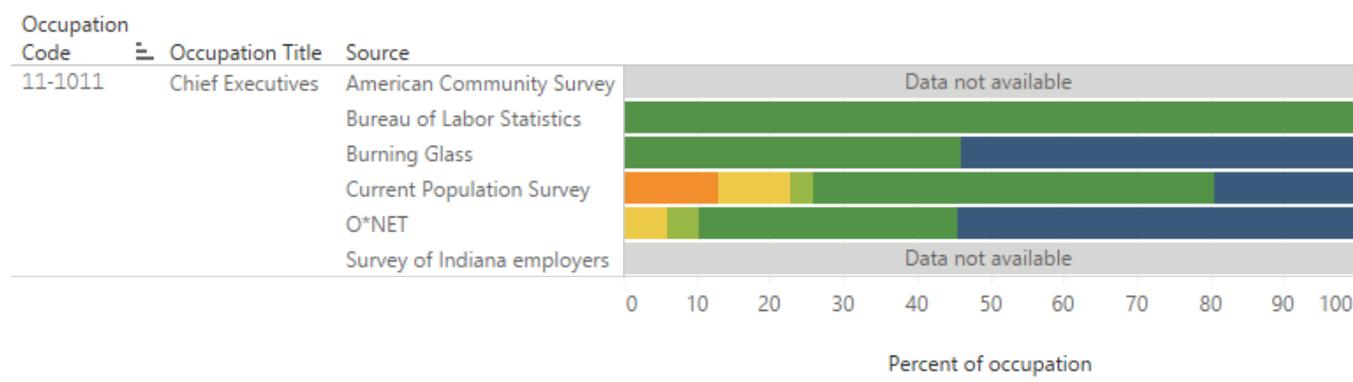


Burning Glass data represent the most commonly required *LEVELS* of education requested by employers in job postings nationally

Survey of Indiana employers data represent the most commonly required *LEVELS* of education indicated in a survey of Indiana employers

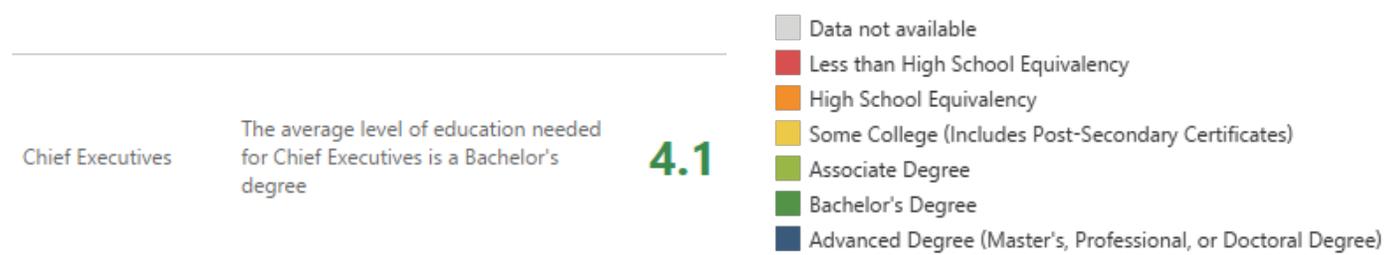
Filter results by occupation group

Filter results by detailed occupation title

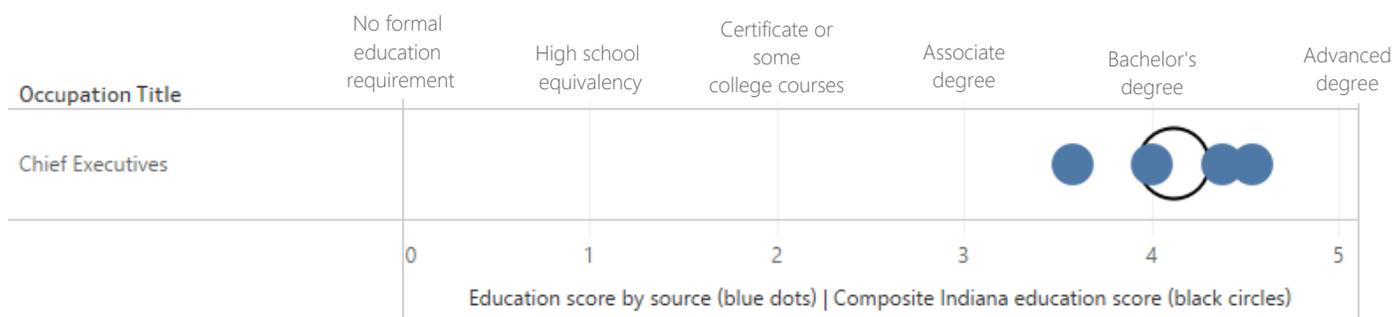


Composite education score

Education level



Occupation education score: the average education level required



Sources: Bureau of Labor Statistics, Occupational Outlook Handbook, www.bls.gov/ooh; Indiana Department of Workforce Development, Indiana Survey of Employers and Occupation Projections, www.hoosierdata.gov; IPUMS-CPS, University of Minnesota, www.cps.ipums.org; IPUMS-USA, University of Minnesota, www.ipums.org; O*NET, 21.1 Database, www.onetonline.org.

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Source: Indiana Business Research Center

O*NET data are reported *by incumbents* working in that occupation, while some are reported by occupation experts. Even when incumbents provide survey responses, they are reviewed and may be adjusted by occupation experts.

ACS and CPS data are survey responses of incumbents, but each person provides their job title, rather than an occupation code at the time of the survey. Those job titles are then translated into occupation codes by a third party.

Another difference between ACS/CPS and O*NET data is what the incumbents report. O*NET incumbents report the typical minimum education level required for their occupation, whereas ACS and CPS incumbents report their personal highest level of education, which may be higher or lower than the minimum level required by employers for the occupations they hold.

Aside from differences in data sources and reporting methods, there are

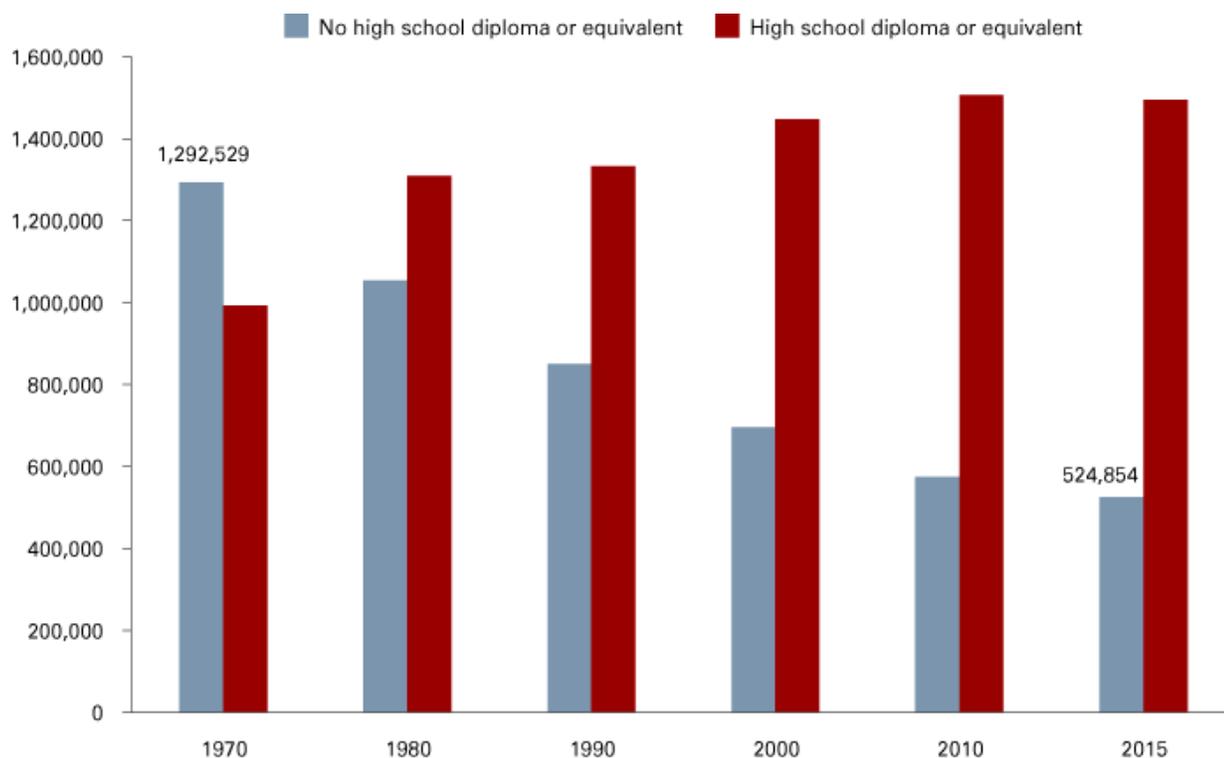
challenges with attempting to standardize requirements by occupation. Some of these standardization barriers include the following:

- **Occupations evolve over time.** Changing tasks and skills associated with an occupation can translate into different occupation requirements for a position.
- **Some positions are difficult to categorize into one standard occupation code.** This is particularly true for emerging occupations, where a person's occupation may cover aspects of several other established occupations.
- **Educational requirements differ by *firm* characteristics.** A small business in a rural area may have vastly different occupation requirements for a position than a large urban firm. Similarly, a new start-up company will likely have different educational requirements than a well-established firm, even when hiring for the same occupation. Additionally, some firms value in-house training over formal education.
- **A firm may have a *minimum* and a *preferred* level of education for a position.** An employer may also be willing to substitute work experience for formal education requirements.

All of these considerations generally make it impossible to definitively set a single, minimum level of education required for each occupation. Instead, the available data should be used as a guide to generalize common education requirements of occupations.

And it is good to keep in mind the broad educational attainment level of adults (age 25 and older) in Indiana. High school completion has steadily increased over the past 45 years, though the number of Hoosiers lacking a high school diploma or equivalent remains persistently high—nearly 525,000 in 2015 (see **Figure 2**).

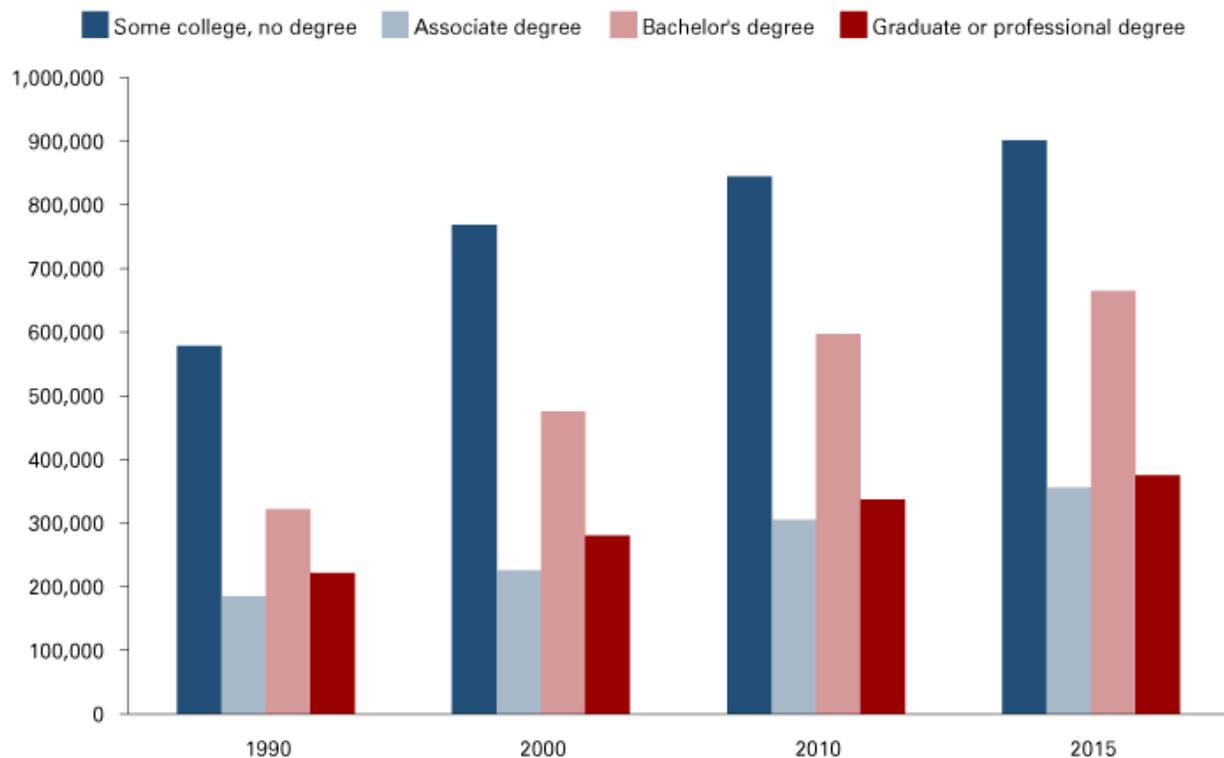
Figure 2: High school educational attainment in Indiana



Source: U.S. Census Bureau

We now have a (slight) majority of Hoosiers with at least some college. The number having at least some college (which may include certificates) has grown to more than 900,000 adults in Indiana, while more than a million Hoosier adults have a bachelor’s degree or more (see **Figure 3**).

Figure 3: Postsecondary educational attainment in Indiana



Source: U.S. Census Bureau

It is also important to keep in mind that education requirements for jobs do change over time. The Indiana Business Research Center has analyzed the changes in education requirements in O*NET occupations, looking specifically at the changes between 2004 and 2015 across Indiana occupations—including the former Hot 50, high-wage/high-demand and STEM. For all occupations, there has been a decrease in the requirements of less than high school, high school and some college, along with an increase in the requirements of an associate degree, bachelor's degree, master's degree and doctoral degree. The percent that required a high school diploma decreased by 3.8 percent, while the requirement of a bachelor's degree increased by 2.6 percent. See the article "[Requirements of the job: Tracking changes to the education component](#)" for that full analysis.

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