

Trends



POPULATION TRENDS

The ability for a state to attract large businesses, such as warehouses and distribution centers which rely upon thousands of employees at a time, is largely dependent upon the labor force available. While part of this workforce availability is related to factors such as education, experience, and skill sets, none of these are possible without actual people to educate and train. This section focuses on the current and forecasted population of the State of Indiana and the impacts this will have on future workforces and business retention and attraction.

Indiana's population was estimated at just over 6.6 million people in 2015, slightly higher than the 2010 estimate of just under 6.5 million. Between 2010 and 2015, Indiana's population grew at a slower rate than the U.S. as a whole. Population growth in Indiana during this period was approximately 0.4 percent annually, while the national growth rate was 0.7 percent annually. Population estimates in 2015 also fell short of forecasts from the Indiana Business Research Center made in 2012, indicating that growth is not keeping up with expectations or is possibly slowing.

Figure 23 illustrates the anticipated population forecasted to 2040. Between 2015 and 2040, annual growth is expected to be just under 0.4 percent, on pace with what occurred between 2010 and 2015. If population continues at this rate, the population of the State would be just over 7.3 million in 2040. However, lower than anticipated growth into 2015 indicates that it is likely that the population will not reach this level of growth without a shift in Indiana's net migration patterns. If slowing or stagnant population growth occurs, Indiana may not have the workforce necessary to meet demand for freight-oriented commerce or attract future development.

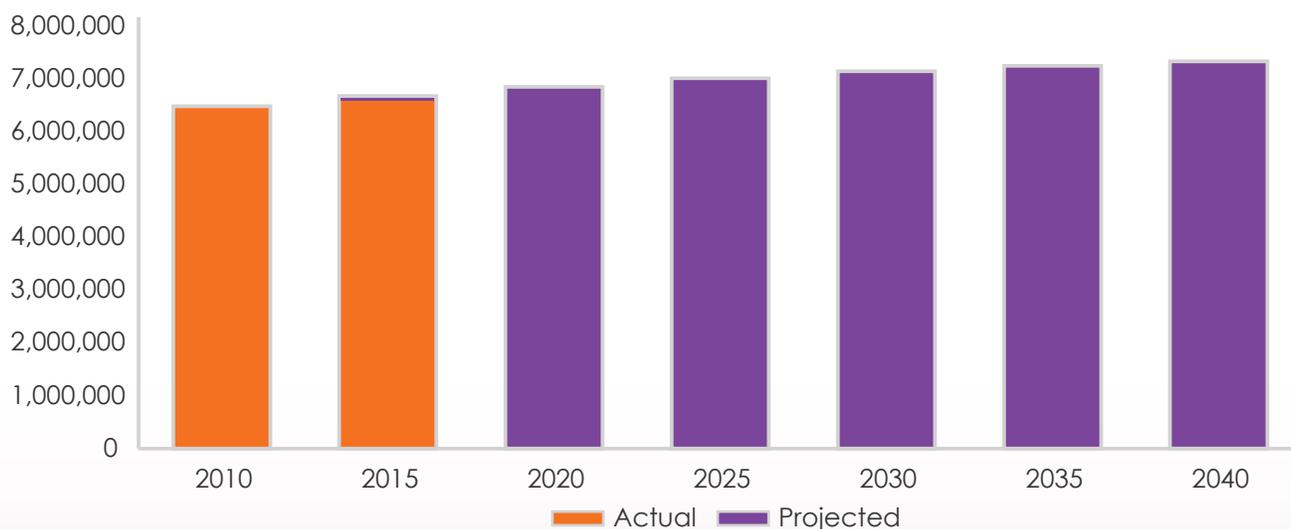


Figure 23. Statewide Population Forecast

Source: Indiana Business Research Center, 2012.



While the population has already undercut the forecasts, that does not discount the value that these forecasts can offer. In particular, an understanding of where in the State persons are attracted to is important in order to assess future needs pertaining to infrastructure, housing, schools, and more. Figure 24 shows the estimated population between 2010 and 2040. While many counties remain in the same relative range of populations, one shift that can be observed is a reduction in population in more rural areas and an increase in population in more urban areas such as Indianapolis and the counties near the Chicago region along I-90. This trend signals that more of the State's workforce will be concentrated in fewer locations in the State.

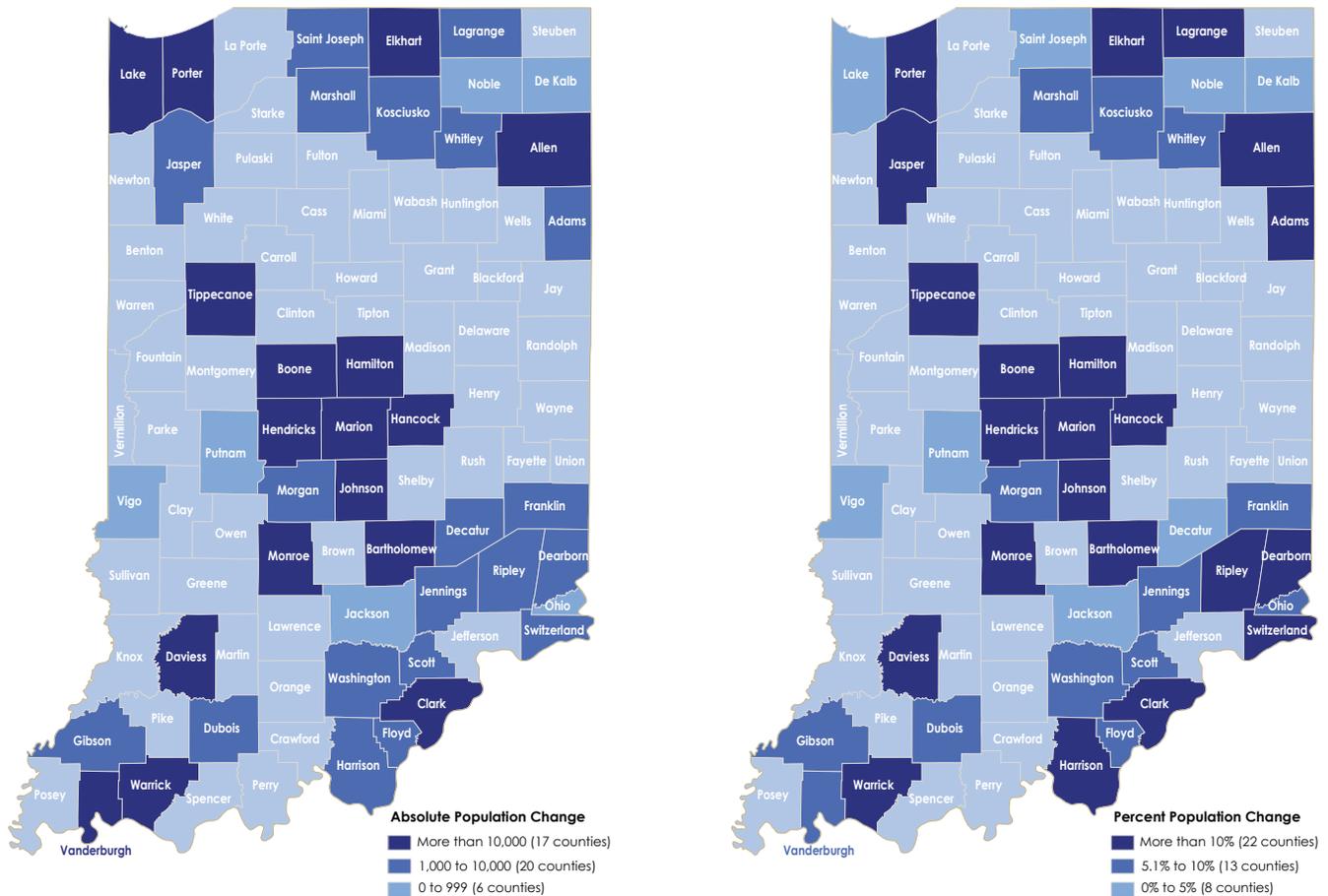


Figure 24. Change in Population by County, 2010-2040

Source: Indiana Business Research Center, 2012.

Figure 24 also shows the percent change of each county. Over one quarter of the State's population growth is attributed to Hamilton County near Indianapolis. Marion and Hendricks counties, also in the Indianapolis region, experience the second and third largest population growths. Combined, these three counties account for over 50 percent of the total net increase in the State's population. Proportionate to the current population, this is tremendous growth. The total growth for Hamilton County is anticipated to be 81 percent while that of Hendricks (the second highest percent growth) is 68 percent. The remainder of the top five counties for total growth based on percentage are Boone, Hancock, and Johnson Counties.



On the opposite end of the spectrum are those counties which will lose a large part of their populations. Blackford County, while appearing to only lose a small number of residents at 3,387 over the 30 years, is actually anticipated to lose 27 percent of their population based off of 2010 values. Other counties losing 15 percent or more of their population over this timeframe include Wabash (15 percent), Rush (17 percent), Fayette (17 percent), and Posey (18 percent). These decreases in population can make it difficult for a county or region to position itself for the introduction of a large employer if the labor force is not available. Similarly, a loss in population also decreases the tax base which can have a ripple effect on other aspects such as local education and transportation spending.

At the same time that populations are either remaining stagnant or growing slowly, the age of the population continues to rise. The estimates provided by the Indiana Business Research Center broke down these population trends by age group which allows for an understanding of the available workforce in the coming years. The percent share of the population broken down by age group is shown in Figure 25. In particular, one of the most significant shifts is in the 65+ age group. This group goes from a mere 13 percent of the population in 2010 up to 21 percent in 2040. While aging is a natural component of life, the rapid growth of this group surpasses the anticipated population gains, resulting in a smaller percent of the population participating in or preparing for the workforce.

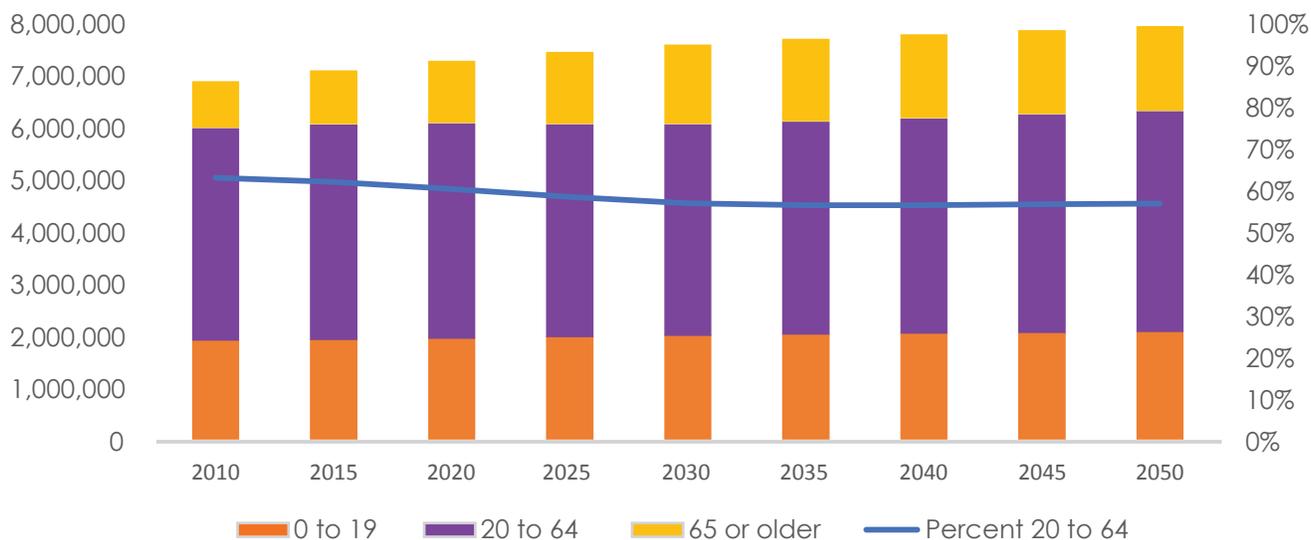


Figure 25. Statewide Workforce Estimates

Source: Indiana Business Research Center, 2012.

Population forecasts for 2015 were made in 2012. However, population estimates conducted in 2015 showed that actual growth differed from projected growth. While forecasts are not perfectly accurate, in this case they afford the opportunity to examine the areas which have grown faster than anticipated, as well as those that have grown slower than anticipated. Table 8 shows the top five counties which have the largest overall difference in their estimates both positively and negatively. The largest positive difference is found in Marion County which grew by an extra 11,045 persons than what was anticipated, or 1.2 percent higher than the estimates. Similarly, Tippecanoe, Bartholomew, Boone, and Jackson each had several thousand more residents than anticipated, or over 2 percent higher than the estimates.



This suggests that these counties have been much better at attracting residents than others. On the opposite end, the counties which did not meet their population estimates were off by much more. These counties ranged from 3,717 persons in Hancock County to 14,363 persons below in Lake County." As some of the larger counties in the State, these lower populations are not quite as profound as if they had been experienced in smaller counties.

Table 8. 2015 Population Forecast Compared to 2015 Census Estimate, by Net Difference

COUNTY	2015 FORECAST	2015 CENSUS ESTIMATE	NET DIFFERENCE	PERCENT DIFFERENCE
Marion	927,975	939,020	11,045	1.2%
Tippecanoe	182,205	185,826	3,621	2.0%
Bartholomew	79,194	81,162	1,968	2.5%
Boone	61,621	63,344	1,723	2.8%
Jackson	43,059	44,069	1,010	2.3%
Indiana State	6,677,751	6,619,680	-58,071	-0.9%
Hancock	76,237	72,520	-3,717	-4.9%
Porter	172,563	167,688	-4,875	-2.8%
Hendricks	164,961	158,192	-6,769	-4.1%
Hamilton	318,449	309,697	-8,752	-2.7%
Lake	502,228	487,865	-14,363	-2.9%

Source: U.S. Census Bureau, Indiana Business Research Center.

Table 8 shows the top counties which exceeded or missed their population forecasts by the net persons and percent difference. The majority of those exceeding their forecasts percentage-wise are the same as those that exceeded them by the net difference shown in Table 9. However, for those that missed their forecast, the majority are different from those previously highlighted. Based on percentage, the lower estimates are much more profound in lesser populated counties such as Switzerland and Ohio which are 7.1 percent and 6.7 percent below what was forecasted. This information, while merely interesting at a glance, affords the opportunity to learn from the counties on the ends of the spectrum. For those that have seen higher than anticipated growth, others can model themselves off of their tactics in order to experience similar growth, if that is the desired effect.

Table 9. 2015 Population Forecast Compared to 2015 Census Estimate, by Percent Difference

COUNTY	2015 FORECAST	2015 CENSUS ESTIMATE	NET DIFFERENCE	PERCENT DIFFERENCE
Boone	61,621	63,344	1,723	2.8%
Bartholomew	79,194	81,162	1,968	2.5%
Jackson	43,059	44,069	1,010	2.3%
Tippecanoe	182,205	185,826	3,621	2.0%
LaGrange	38,253	38,809	556	1.5%
Indiana State	6,677,751	6,619,680	-58,071	-0.9%
Dearborn	51,927	49,455	-2,472	-4.8%
Hancock	76,237	72,520	-3,717	-4.9%
Union	7,583	7,182	-401	-5.3%
Ohio	6,367	5,938	-429	-6.7%
Switzerland	11,332	10,524	-808	-7.1%

Source: U.S. Census Bureau, Indiana Business Research Center.



These population trends and forecasts are a reflection of what is anticipated to occur in the coming years. However, workforce strains are already occurring in the present. Based on the Bureau of Labor Statistics (BLS), Indiana's unemployment rate is already at 4.1 percent as of February 2017,²⁰ well below the 4.7 percent unemployment rate in the United States as whole. While this is a positive sign for residents that the majority of those who want to work have employment, this also makes it difficult for employers to find suitable candidates.

Freight and freight-dependent industries require a range of skill levels to produce and distribute their products. For example, a manufacturing firm may require workers with a four-year degree or higher, such as automation or equipment engineers, to design and optimize its operations. The same firm requires middle-skill workers, those with a two-year degree or specialized training, to operate and maintain equipment and processes. The National Skills Coalition examines the market for middle-skills jobs, which account for 58 percent of all jobs in the State of Indiana as of 2015. Middle-skill workers, on the other hand, only make up 47 percent of the State's workers²¹ which signifies a very large gap in what is needed versus what is available. A rise in substance abuse also limits the number of eligible employees for a given firm.²² These factors limit not only the freight community but other employers as well, which hinders the ability of Indiana to grow to its full potential.

²⁰ <https://data.bls.gov/timeseries/LASST180000000000003>.

²¹ <http://www.nationalskillscoalition.org/resources/publications/2017-middle-skills-fact-sheets/file/Indiana-MiddleSkills.pdf>.

²² https://www.nytimes.com/2016/05/18/business/hiring-hurdle-finding-workers-who-can-pass-a-drug-test.html?_r=0.



FREIGHT FLOWS

Freight Growth Projections

Freight growth in Indiana is projected to maintain similar ratios across truck, rail, water, and air by 2045. A notable trend emerges in the growth of value of the freight. Inbound (+48%), Outbound (+48%), and Internal (+33%) all represent significant growth from 2015 to 2045. By tonnage, growth is moderate: Inbound (+29%), Outbound (+37%), and Internal (+27%). Freight moving through the State of Indiana also impacts the condition and performance of the freight network. However, its impact on the State's economy is less significant than goods originating in or destined for Indiana. A summary of modal freight projections are shown in the following three tables.

Table 10. Indiana Inbound Freight by Mode, 2045

MODE	TONS (1,000S)	%	TOTAL M\$	%	VALUE/TON
Truck	152,259	70%	\$351,146	75%	\$2,306
Rail	55,641	25%	\$38,350	8%	\$689
Water	10,744	5%	\$2,751	1%	\$256
Air	405	0%	\$75,064	16%	\$185,343
Grand Total	219,049	100%	\$467,311	100%	\$2,133

Source: Freight Analysis Framework Version 4.

Table 11. Indiana Outbound Freight by Mode, 2045

MODE	TONS (1,000S)	%	TOTAL M\$	%	VALUE/TON
Truck	172,059	76%	\$384,166	76%	\$2,233
Rail	43,153	19%	\$41,286	8%	\$957
Water	11,426	5%	\$1,881	0%	\$165
Air	445	0%	\$75,668	15%	\$170,040
Grand Total	227,083	100%	\$503,541	100%	\$2,217

Source: Freight Analysis Framework Version 4.

Table 12. Indiana Internal Freight by Mode, 2045

MODE	TONS (1,000S)	%	TOTAL M\$	%	VALUE/TON
Truck	293,044	94%	\$209,955	97%	\$716
Rail	14,549	5%	\$5,060	2%	\$348
Water	3,621	1%	\$82	0%	\$23
Air	6	0%	\$530	0%	\$88,333
Grand Total	311,220	100%	\$215,628	100%	\$693

Source: Freight Analysis Framework Version 4.

Freight Flows by County

Chapter 1 detailed the freight inventory and assets within Indiana and the types of commodities utilizing each mode. This did not, however, yield an understanding of where within the state goods are going to or coming from. FAF traditionally only allows for a high-level understanding of this information, typically limited to urban areas and then the remainder of the State. In the case of Indiana, this would only permit detailed information for the regions near Chicago, Indianapolis, and Fort Wayne. To break this information down to a county level, a disaggregation method developed by Cambridge Systematics was utilized.



Figure 26 displays the results of this disaggregation at the county level for both 2015 and 2045 tonnages. The highest volumes statewide in 2015 are found in Lake County, due to industrial activity in Gary, the proximity of Chicago, and a larger metropolitan population which will consume more goods (and thus have higher inbound volumes of commodities). Marion County falls into second place, again due to a more densely populated area. Population is not the only driver of commodity volumes but does contribute to a higher consumption rate. Significant freight infrastructure in these regions also contributes to attracting freight, which is more clearly seen in the county with the third highest tonnage – Elkhart County. While smaller in population (about one-fourth the size of Indianapolis), Elkhart County contains significant freight infrastructure, such as the Norfolk Southern Auto Terminal, which results in the higher volumes seen here.

Moving forward into 2045, these three counties will continue to be the top origins and destinations of goods. However, nearly every county statewide will see some amount of growth in the overall amount of goods moved. Understanding and preparing for this growth will better position Indiana to utilize available resources to make appropriate investment decisions to ensure the safety, reliability, and overall performance of the transportation network.

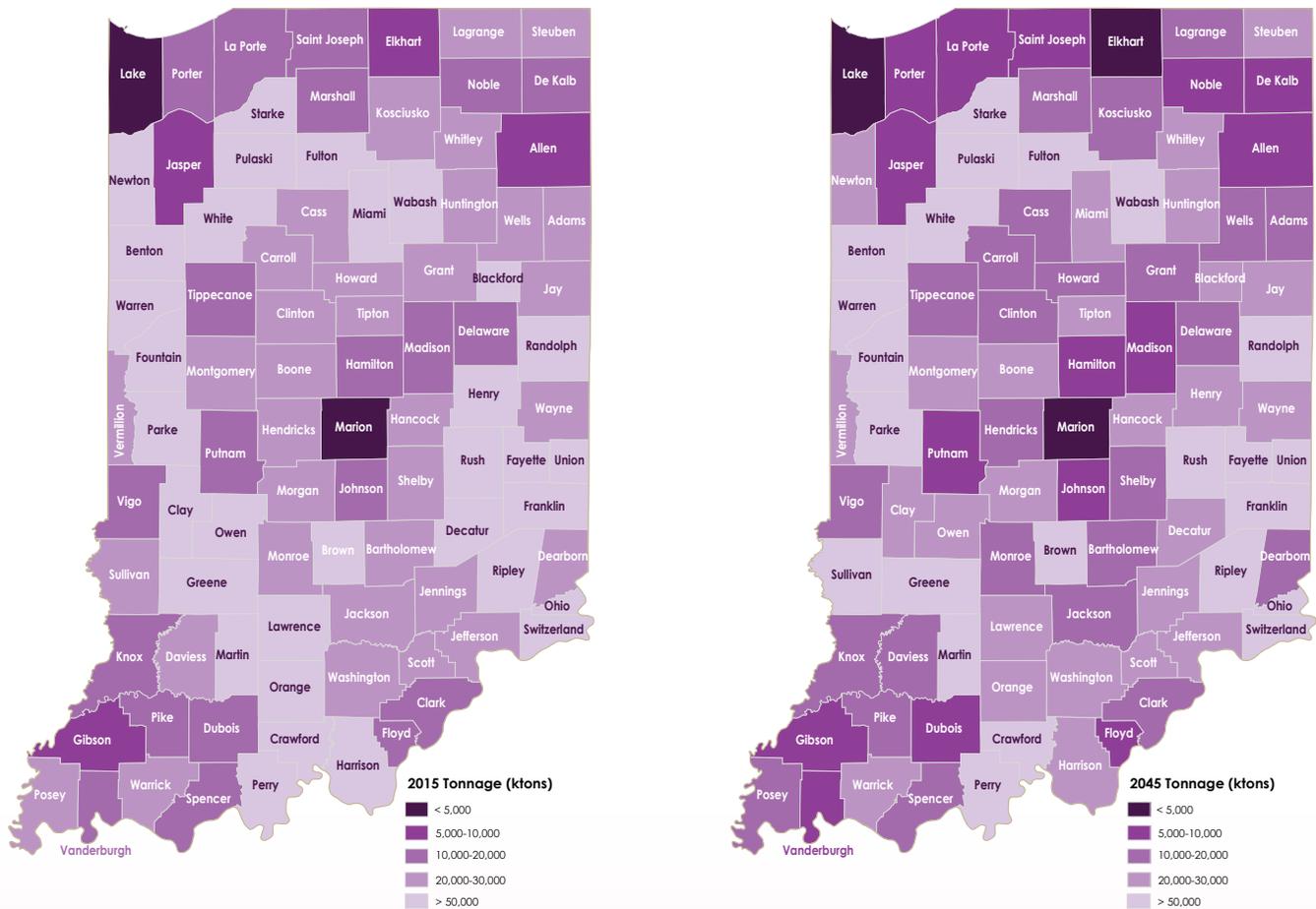
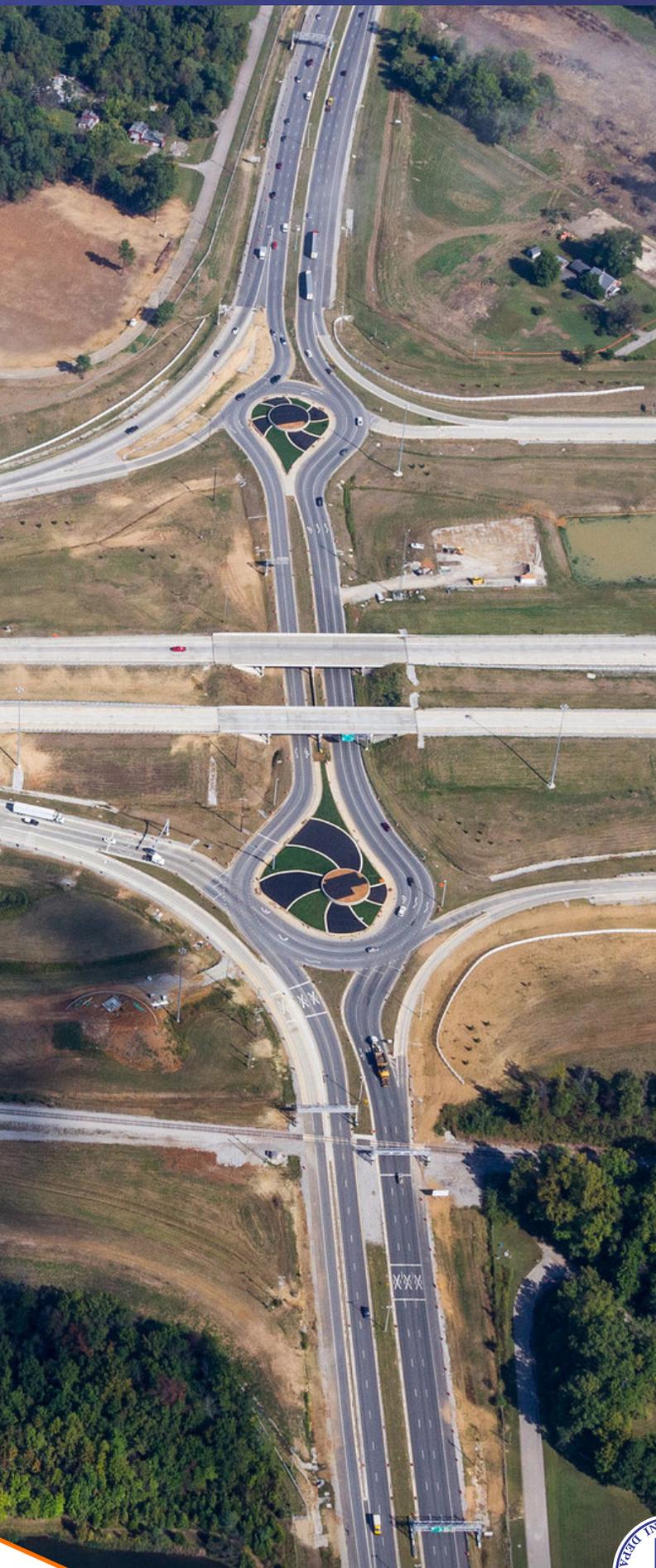


Figure 26. Origin and Destination Tonnage by County, 2015 and 2045





As mentioned, *nearly every county will see some growth in freight volumes.* Figure 27 shows that the exceptions to this are Spencer, Pike, and Sullivan Counties. While this decrease is not ideal and may signify a loss of some industry in these counties, the overall drop in tonnage for each is no more than 10 percent, or about 1,360 ktons. On the opposite end of the spectrum once again lies Lake, Marion, and Elkhart counties. These three counties will see the most overall growth and maintain their positions as the top three counties by overall volume.

While the overall volume of each of these counties may be higher than other regions, many areas in the State are anticipated to see growth rates of over 50 percent. By percentage, Marshall, Blackford, and Perry Counties are anticipated to see the highest growth rates. While the total tonnage growth is relatively smaller compared to the largest counties (growth of 1,233 ktons to 7,103 ktons here versus 48,882 ktons in Lake County), a high percentage indicates above average growth. High growth in freight commodities can signify an increase in jobs and economic prosperity in more rural regions such as these. Each of these counties is well positioned for growth based on the following connectivity:

- **Marshall County** – Seven state roads and three U.S. highways within the county as well as four railroad companies with active lines.²³
- **Blackford County** – Within 10 miles of three interchanges on I-69, traversed by State Roads 3, 18, and 26, and served by two railroads (Norfolk Southern and Central Railroad Company of Indianapolis/Genesee & Wyoming).²⁴

²³ <http://www.marshallcountyedc.org/targeted-industries/transportation-warehousing>.

²⁴ <http://www.blackfordindiana.com/location/>.



- Perry County** – Access to I-64 in northern portion of county and Ohio River to the south with rail service provided by the Perry County Port Authority.

Many other counties throughout the State sport similar critical connections via multiple modes which contributes to the growth seen throughout the State.

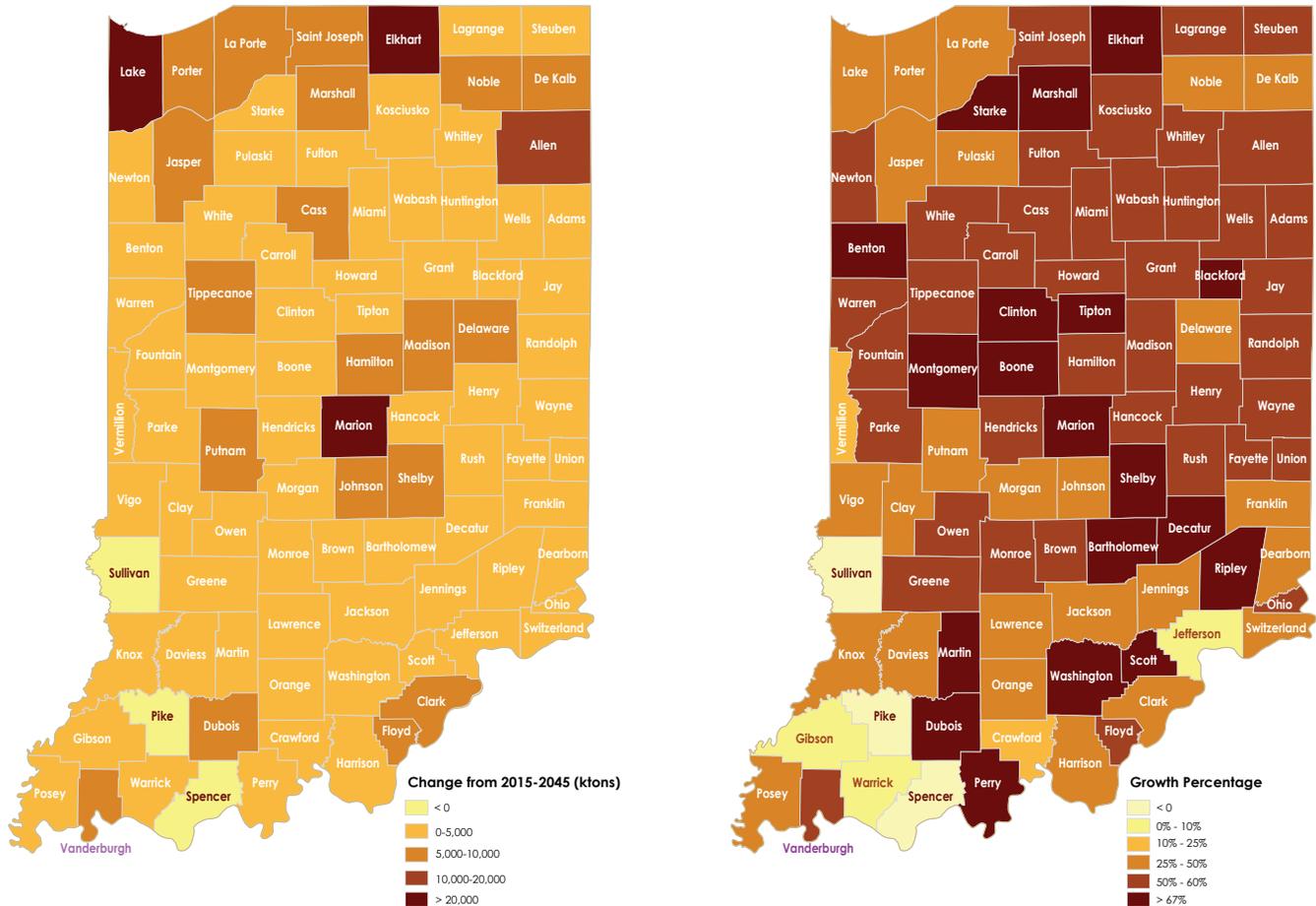


Figure 27. Change in Origin and Destination Tonnage by County, 2015-2045



