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INDIANA UNIVERSITY  
Indiana Business Research Center

Indiana's Population  
Projections, 2010 to 2050

Where Are the Jobs?

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# INDIANABUSINESSREVIEW



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## From the Editor

It's already two years since the last census, which means people are already asking for more current population data for their communities. In fact, many businesses, schools, government agencies and nonprofits want to know what their populations are going to be much further out in the future. Such information is critical to capital projects, long-range planning efforts, business expansion plans and planning for opening new schools or closing old ones.

The IBRC continues its twice-each-decade production of Indiana's official population projections—an effort now in its sixth decade. In this issue, readers are receiving the first look at Indiana's county projections based on the 2010 census results. Between 2010 and 2050, Indiana's population will continue to grow to nearly 7.5 million. Most of that growth will result from a surfeit of births over deaths and continued in-migration. And our population is getting older thanks to the aging baby boom generation moving into its retirement years.

For the curious (since we've been doing this for a long time), here's a look at what we projected for 2010 (in our 2007 series):

- Projection for the year 2010: 6,427,236
- The actual 2010 Census count: 6,483,802

My math tells me we were off by less than 1 percent—not bad!

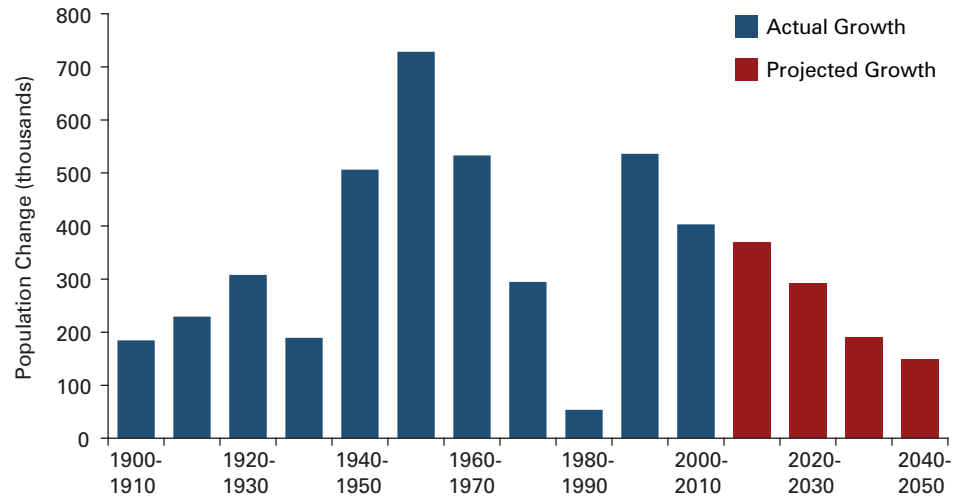
# Indiana's Population Projections, 2010 to 2050

MATT KINGHORN: DEMOGRAPHER, Indiana Business Research Center, Kelley School of Business, Indiana University

**B**etween the years 2010 and 2050, Indiana's population will increase 15 percent— from 6.48 million to 7.48 million residents— according to population projections released by the Indiana Business Research Center. More than one-third of this growth will take place in the next few years as the state's population climbs to 6.85 million by 2020. Indiana will continue to grow over the following decades but at increasingly lower rates (see **Figure 1**).

On our way to adding another million Hoosiers, the state's population will continue to undergo major shifts. Indiana's population of 2050 will have a far different age structure and geographic distribution than it does today. These changes should not catch anyone off guard, however. Over the last decade or more, the aging baby boom generation has already transformed the state's population, and a handful of metropolitan areas have captured the lion's share of growth. This article will detail how the extension of these

■ **FIGURE 1: Indiana Population Growth by Decade, 1900 to 2050**



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

same trends will play out over the coming decades.

## Aging Population

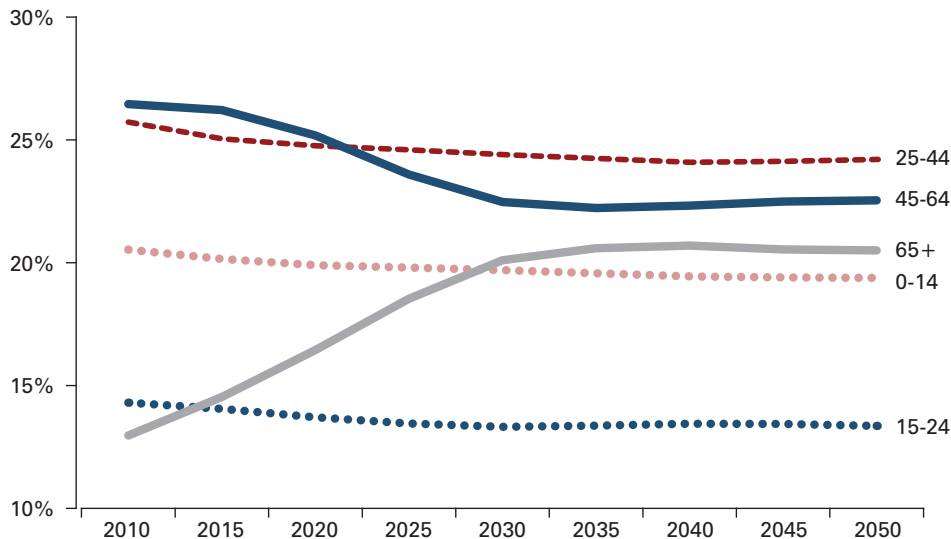
The dominant force behind Indiana's changing population dynamics is the aging baby boom generation. The first boomers hit age 65 in 2011 and the entire cohort will be of traditional retirement age by 2030. By that point,

the senior population's share of the state total will jump from 13 percent in 2010 to 20 percent before beginning to level off (see **Figure 2**). All other age groups will see its share of total population decline over the same period.

While other age groups will lose market share in the coming decades, most will still grow (see **Figure 3**). Both Indiana's child population (age 0 to 14) and its younger adult age group (25 to 44) will increase by roughly 75,000 residents by 2030 and those around college age will be up by 25,000. These gains, however, will be dwarfed by the projected 70 percent increase in the number of Hoosiers age 65 or older.

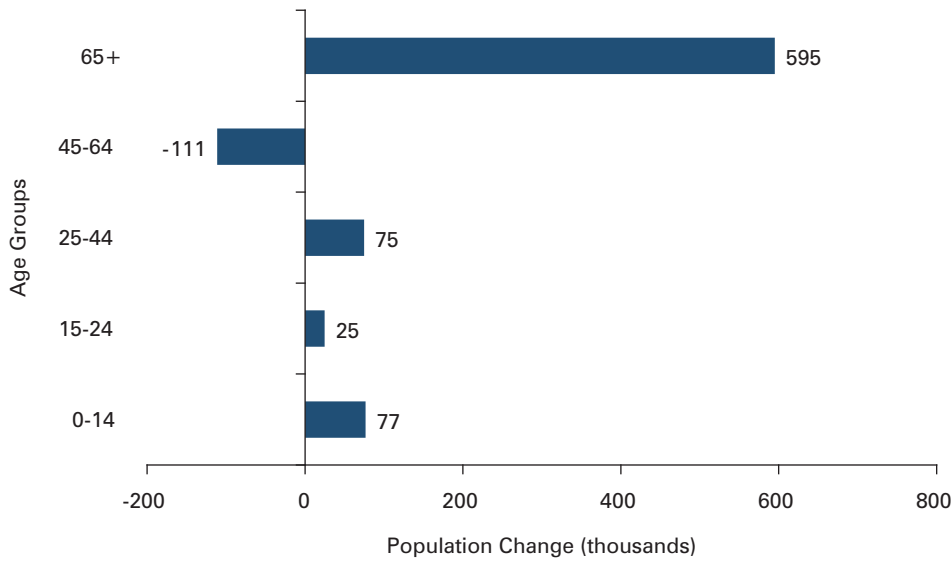
The movement of boomers into retirement age will cause a temporary decline in the state's older working-age population, which could have implications for the size of Indiana's labor force and the state's economic development prospects. However, any negative economic effects that may stem from a smaller labor force could be mitigated by the expected increase in labor force participation

■ **FIGURE 2: Projected Share of Total Population by Age Group, 2010 to 2050**



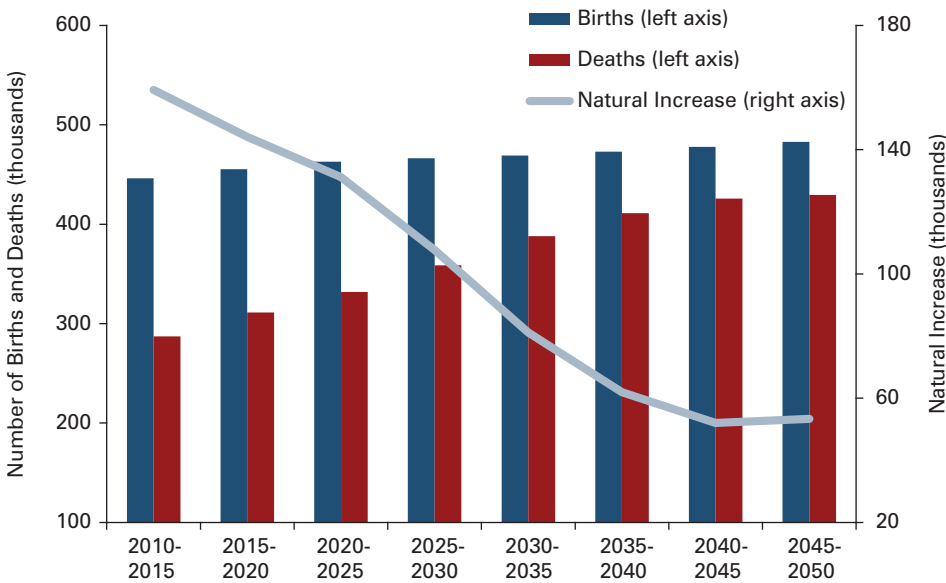
Source: Indiana Business Research Center

**FIGURE 3: Projected Population Change by Age Group, 2010 to 2030**



Source: Indiana Business Research Center

**FIGURE 4: Projected Number of Births, Deaths and Natural Population Increase, 2010 to 2050**



Source: Indiana Business Research Center

among older workers, productivity gains or higher than projected levels of net in-migration. Additionally, once the so-called baby bust generation edges into retirement age, the number of Hoosiers in the traditional labor force age groups will increase over today's levels.

This graying of the population will usher in a host of other economic and

public policy issues that are beyond the scope of this article. But as a demographic matter, aging will have another large impact on Indiana's population trends. Namely, as the state ages, its population growth will slow (as seen earlier in **Figure 1**).

Populations grow or contract through migration and natural increase (the difference between the

numbers of births and deaths). While migration plays an important role in population change, natural increase typically accounts for the majority of Indiana's growth. For instance, between 2000 and 2010, Indiana had roughly 320,000 more births than deaths, which accounted for 80 percent of the state's total population growth. Looking back at the 1980s, the state experienced a strong net out-migration, yet natural increase kept Indiana "in the black" in terms of population change.

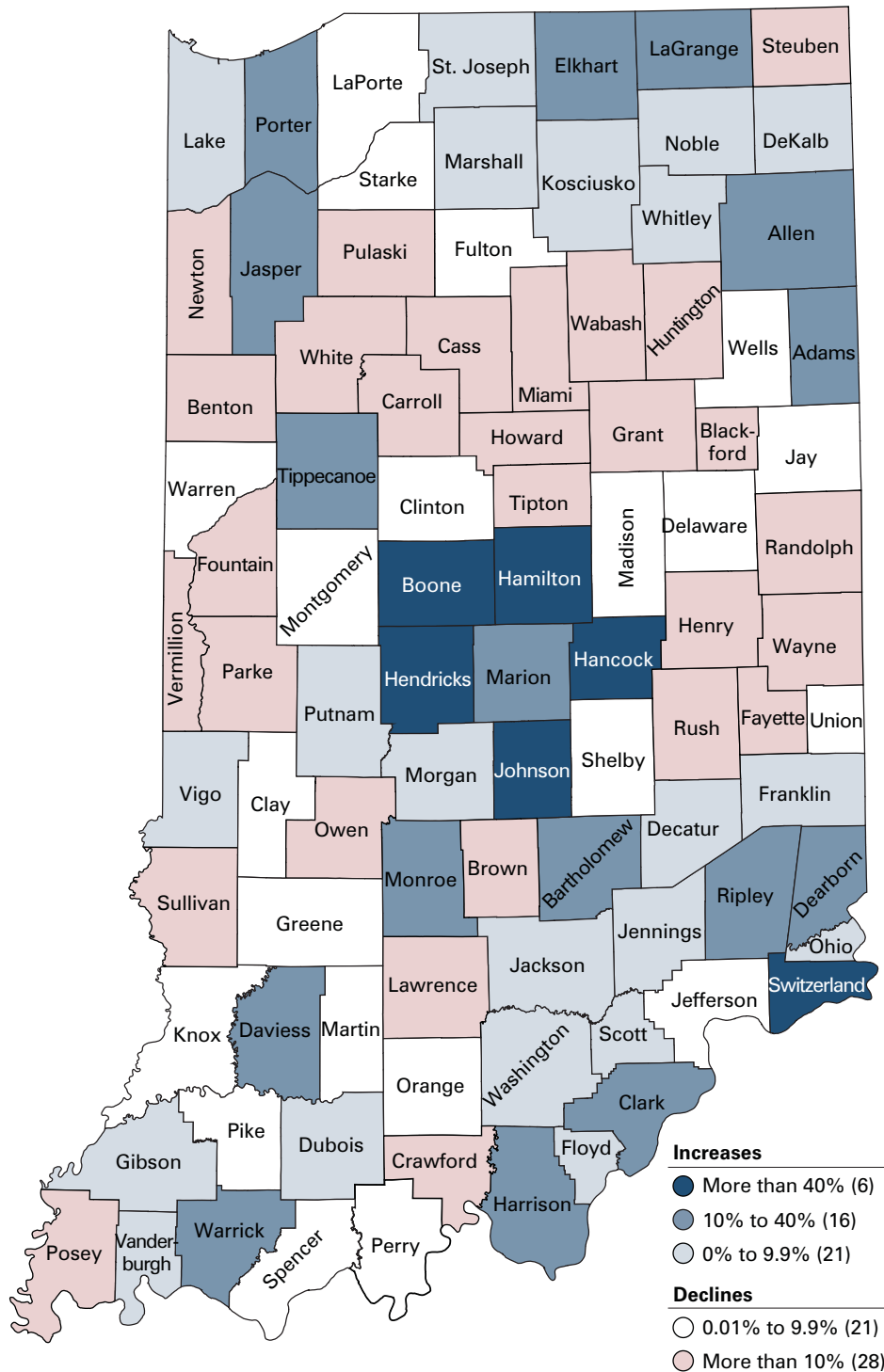
Over the next few decades, both births and deaths are projected to increase—but deaths will rise much faster due to the rapid growth of the senior population. Consequently, the natural increase of Indiana's population will decline from 159,000 between 2010 and 2015 to as low as 52,000 between 2040 and 2045 (see **Figure 4**).

It's important to note that the decline in natural increase levels off late in the projection period and actually ticks up between 2045 and 2050. So natural increase should continue to be a source of population growth for some time and will likely increase steadily in the second half of this century. While that is the case statewide, many local areas will see a shift to natural decrease in the coming decades.

### Around the State

The 10-county Indianapolis-Carmel metro area<sup>1</sup> has long been the state's engine of population growth. Between 2000 and 2010, this region added 231,000 residents, which accounted for 57 percent of the state's total growth. Central Indiana's role will likely become more dominant in the future. Between 2010 and 2030, this metro area's growth will be responsible for 62 percent of the state total. Over the next 40 years, the region could claim up to 70 percent of growth. The metro area's share of Indiana's population will increase

■ FIGURE 5: Projected Population Change by County, 2010 to 2050



Source: Indiana Business Research Center

from 27.1 percent in 2010 to 32.8 percent in 2050.

Hamilton County will continue to be the state's fastest growing county as it doubles in size to 548,000

residents by 2050. If these projections bear out, Hamilton County will surpass Lake and Allen counties to become the state's second-largest county. Over the same period,

Hendricks County's population will climb to 268,000 residents—an 84 percent increase. Boone, Hancock and Johnson counties—also in the Indy metro area—will round out the state's five fastest-growing communities.

Outside of Central Indiana, the four corners of the state should see strong growth too (see Figure 5). Clark and Harrison counties in the Louisville metro area will grow by 35 percent and 22 percent, respectively. Warrick County in the Evansville metro area, along with Porter County in Northwest Indiana and Elkhart County should each see a 25 percent increase. The Fort Wayne metro area is projected to grow by one-fifth.

At the other end of the spectrum, though, there are equally distinct regions of population loss. Large swaths of mid-sized and rural communities in north, east and west-central Indiana are projected to shed residents over the next 40 years. Many counties in southwest Indiana are also likely to lose population. All told, 49 of Indiana's 92 counties are expected to see a population decline by 2050.

At the root of these population losses is the expected decline in natural increase discussed earlier. Between 2000 and 2010, 29 Indiana counties lost population, yet there were an estimated 62 counties that had a net out-migration of residents over the same period.<sup>2</sup> This means that the natural increase in 33 counties was large enough to offset the net out-migration.

A net outflow is projected to continue in many of these counties, although at increasingly lower rates. At the same time, due to the aging population, declining natural increases in many counties will no longer mask net out-migration. In fact, many counties will begin to experience a natural decrease as deaths rise and continued net out-migration leads to a decline in births. Between 2010 and 2015, seven counties will likely have more

deaths than births. By 2050, roughly 60 counties are projected to have a natural decrease.

Consequently, large regions of the state will age rapidly while families concentrate more and more in a handful of metropolitan areas. This shift was evident in the last decade when Indiana was one of only a few states in the Midwest and Northeast to see an increase in its population under the age of 18—yet all of these gains occurred in just 24 counties.

This trend is expected to continue. **Figure 6** shows the projected change in the child population (age 0 to 14) for the state as well as for all counties in metropolitan statistical areas (MSAs) compared to those that are not. Led by the metro areas, Indiana should see steady increases in its child population while the state’s mid-sized and rural counties as a group will see a 6.5 percent decline by 2050.

As a result, there will continue to be wide differences in aging patterns around the state (see **Figure 7**). In 2000, only one county had a median age above 40 but that number jumped to 39 counties in 2010. The number of counties with a median age above 40 will top-out in 2040 when 74 counties

“Large regions of the state will age rapidly while families concentrate more and more in a handful of metropolitan areas. This shift was evident in the last decade when Indiana was one of only a few states in the Midwest and Northeast to see an increase in its population under the age of 18—yet all of these gains occurred in just 24 counties.”

are projected to be above that mark. Indiana’s median age will increase steadily from 37.0 in 2010 to a peak of 39.1 in 2035. The state’s median age will hold steady at this mark through 2050.

It’s worth noting that many of these same trends will play out across the country, particularly in the Midwest and the Northeast. In fact, Indiana’s population is comparatively young. The state’s 2010 median age is a shade higher than neighboring Illinois but is roughly two years younger than Michigan and Ohio and one year below the Kentucky mark.

Indiana is also younger than the U.S median age of 37.2.

### About the Data

These population projections are purely demographic, meaning that they rely exclusively on recent birth/death data and migration estimates. Therefore, these figures are a reflection of what Indiana and its communities will look like if past trends continue. No assumptions have been made about future economic conditions or land use decisions.

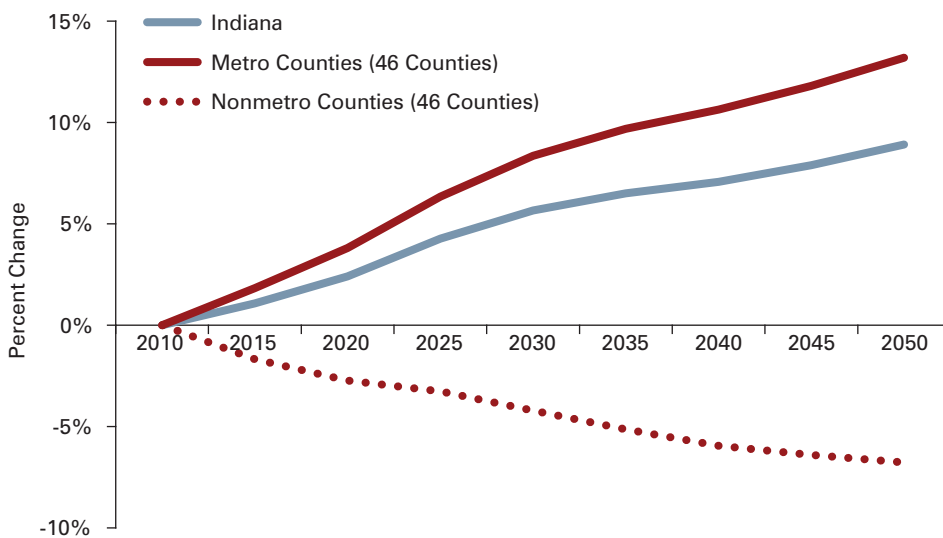
Also, some population dynamics can be difficult to project. Migration, in particular, is the wild card, which means that long-range projections can be subject to significant error. Therefore, it is often useful to pay greater attention to trends during the next 15 to 20 years.

To access the entire population projection dataset or to read a detailed methodology, visit [www.stats.indiana.edu/topic/projections.asp](http://www.stats.indiana.edu/topic/projections.asp). ■

### Notes

1. The Indianapolis-Carmel MSA includes Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, Putnam and Shelby counties.
2. Matt Kinghorn, “Migration Trends and Population Change between the Censuses,” *Indiana Business Review*, Fall 2011, [www.ibrc.indiana.edu/ibr/2011/fall/article2.html](http://www.ibrc.indiana.edu/ibr/2011/fall/article2.html).

■ **FIGURE 6: Projected Change in the 0-to-14 Age Group, 2010 to 2050**



Source: Indiana Business Research Center



# Where Are the Jobs?

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RYAN A. KRAUSE: Economic Research Analyst, Indiana Business Research Center, Indiana University Kelley School of Business

**W**ithout data, so the saying goes, you are just another person with an opinion.

Over the last year, job creation has been a hot topic and it will get only hotter as the election cycle heats up. A familiar assertion is that small businesses are the engines of job creation. By extension, many contend that the Affordable Care Act (ACA) and the penalty that the ACA establishes—for small businesses that do not provide health insurance, will stifle job creation. If this is true, one question yet to be addressed is the number of jobs that would be at risk.

Another question regarding the sources of job growth relates to Indiana's ability to attract outside investment in job creation. This is particularly relevant in light of the recent debate about Indiana becoming a right-to-work (RTW) state.

What do the data tell us about job creation in Indiana?

Job creation depends on small businesses, as well as on investment originating from outside the state. During the last economic expansion, the manufacturing sector in Indiana lost jobs. In the aggregate, 97.5 percent of businesses shed jobs during this time period. Were it not for small firms hiring and the state's ability to attract investment, Indiana would have lost more than 100,000 jobs from the third quarter of 2003 to the second quarter of 2008.

## Methodology

Quarterly Census of Employment and Wages (QCEW) data reported by the Bureau of Labor Statistics allowed us to track employment dynamics by company size and industry. Rather than having to adjust our results for

*“Job creation depends on small businesses, as well as on investment originating from outside the state. Were it not for small firms hiring and the state's ability to attract investment to create jobs, Indiana would have lost more than 100,000 jobs from the third quarter of 2003 to the second quarter of 2008.”*

the job loss of the Great Recession, we selected a five-year period during the last economic expansion and before the economy fell off the cliff, from the third quarter of 2003 to the second quarter of 2008.<sup>1</sup>

First, we distinguished small, growing firms from all others. While the Small Business Administration and other business advocacy groups may debate what constitutes a small business, the definition for our analysis was informed by the ACA—namely, any business with fewer than 50 employees. Our goal was to measure the job growth in Indiana that could be attributed to unarguably small firms that grew into larger firms. Those Indiana firms that started small—49 or fewer employees—and at some point in the five-year study period passed the 50 employee threshold, but by no more than 100 from one quarter to the next, are classified as “homegrown.” These firms were small in the third quarter of 2003, grew over the study period but, as of the second quarter of 2008, were still relatively small.

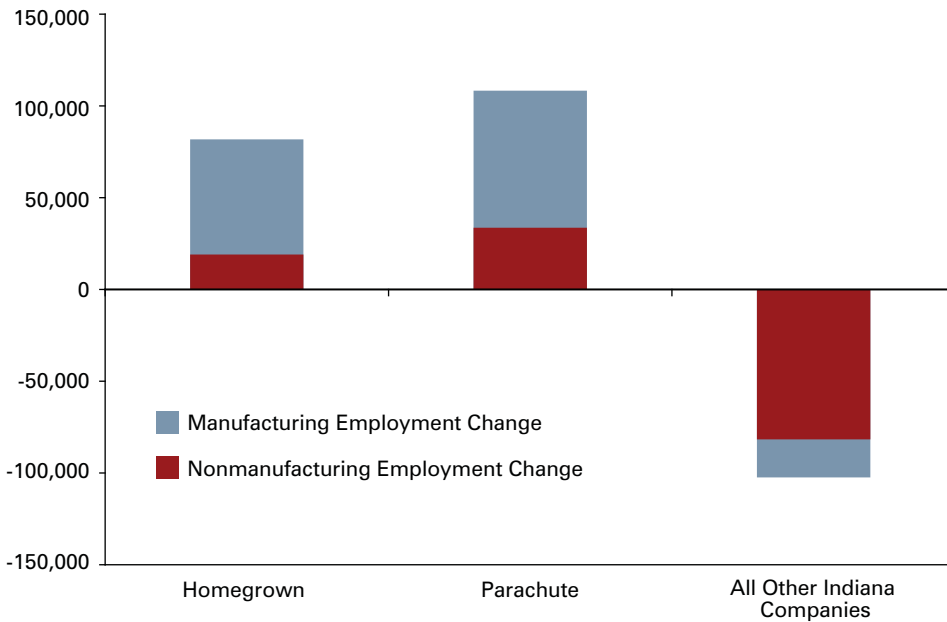
The quarter-to-quarter growth limit of 100 employees differentiates homegrown firms from what we refer to as “parachute” firms. Parachute firms are those that crossed the 50-employee threshold at some point in the study period, but at a rate so fast that the required investment to

support those new jobs would have to come from very deep pockets. They are parachute firms because their employment footprint swells so quickly from one quarter to the next, it is as though hundreds (or even thousands) of jobs parachuted into the state. The jobs created at the Honda facility in Greensburg, or the recent Toyota announcement that its Princeton plant would be expanding by 400 workers in 2013, would be examples of such parachute jobs. Often, parachute firms have a small team on the ground well before the majority of their workers get on the payroll.

We assumed that most parachute firms existed outside the state prior to their initial investment in Indiana because their presence in the state grew so rapidly. This type of rapid growth would require access to large sources of capital. By contrast, and to keep the analysis and the presentation of the results straightforward, we assume the homegrown firms come into existence within Indiana. This assumption and estimation technique does introduce the potential for some homegrown firms to be misclassified as parachute firms in cases where an Indiana homegrown company experienced neck-breaking employment growth, i.e., growing by more than 100 employees in one quarter. That said,



**FIGURE 1: Sources of Employment Change in Indiana, 2003 to 2008**



Source: IBRC, using Quarterly Census of Employment and Wages data

the total job growth numbers are still valid, but a few of the job creation values may appear in the parachute category when they should have been categorized as homegrown.

While easy, straightforward data and analysis are much preferred, it is not always possible. Over a five-year period, there is considerable business churn. The source data reflect businesses—or business locations (establishments) within a company—that change ownership, as well as the many cases when a business starts and fails. The data also track employment changes quarter to quarter that may result from seasonal hiring variation as well as business expansions and contractions. Thus,

adjustments were made to the data because we did not want to count a job as having been created when the only thing “new” was the owner. In addition, we did not count a job as having been created if the business started, only to fail and have the job lost by the end of the study period, or if the job gains were merely temporary due to seasonal variations.

Collectively, the homegrown and parachute categories of firms consist of all Indiana companies that had fewer than 50 employees in the third quarter of 2003 and grew their Indiana employment to 50 or more at some point in the following five years. The criteria excluded firms that began with more than

50 employees, then dropped below and subsequently rose back above that level. In addition, in calculating the employment growth of Indiana firms, we excluded any employees transferred from one company to another as an establishment changed ownership. Ownership churn does not fit our criteria for job creation because the same employees are working at the same establishment over the five years. In other words, a change in company ownership does not necessarily create new jobs. With that said, we included any employees added to an establishment following a change in ownership, as these represent real job growth. If an out-of-state company purchased a 150-employee fabricating plant and expanded employment to 200, those new 50 jobs were counted.

### Employment Dynamics

**Figure 1** graphically depicts the stark contrast of job gains and losses by firm type.

**Table 1** shows that homegrown and parachute firms together make up only 2.5 percent of the firms that existed in Indiana over the five-year period of study. Despite their small number, these roughly 4,500 firms created more than 190,000 jobs over a period for which the entire state of Indiana generated a net 86,395 new jobs. **Table 1** also shows that homegrown and parachute jobs pay, on average, more than the average wage in Indiana. Homegrown firms pay employees about \$600 above the state average annually, and parachute

**TABLE 1: Employment Dynamics in Indiana—Jobs Created or Lost—3rd Quarter 2003 to 2nd Quarter 2008**

	Homegrown	Parachute	All Other Indiana Companies	Total
Number of Firms	3,299	1,193	177,044	181,536
Percentage of Total Firms	1.8%	0.7%	97.5%	100%
Employment Growth, 2003-2008	81,786	108,286	-102,402	86,395
Employment Growth per Firm, 2003-2008	24.8	90.8	-0.6	0.5
Average Q2 2008 Wage Paid	\$35,549	\$36,635	\$34,926	\$34,948

Source: IBRC, using Quarterly Census of Employment and Wages data

companies pay about \$1,700 above the state average. So, not only is this 2.5 percent of Indiana firms making up for the jobs lost at the other 97.5 percent, the new jobs pay more and

help close the income gap between the state and the national average.

**Table 2** identifies the leading job creators by industry classification. Several of the same industries top

the list for both homegrown and parachute firms. Administrative and support services ranked highly in both categories, as did food services and drinking places. Table

■ **TABLE 2: Top Job-Creating Industries in Indiana by Company Type, 3rd Quarter 2003 to 2nd Quarter 2008**

	Industry	Employment Change
Homegrown	722 - Food Services and Drinking Places	10,864
	561 - Administrative and Support Services	8,674
	621 - Ambulatory Health Care Services	5,275
	541 - Professional, Scientific, and Technical Services	4,375
	238 - Specialty Trade Contractors	4,172
Parachute	561 - Administrative and Support Services	15,379
	722 - Food Services and Drinking Places	11,252
	336 - Transportation Equipment Manufacturing	11,235
	331 - Primary Metal Manufacturing	9,621
	621 - Ambulatory Health Care Services	6,369
All Other Indiana Firms	611 - Educational Services	47,753
	541 - Professional, Scientific, and Technical Services	4,480
	622 - Hospitals	3,935
	523 - Securities, Commodity Contracts, Other Financial Investments, and Related Activities	1,123
	624 - Social Assistance	1,079

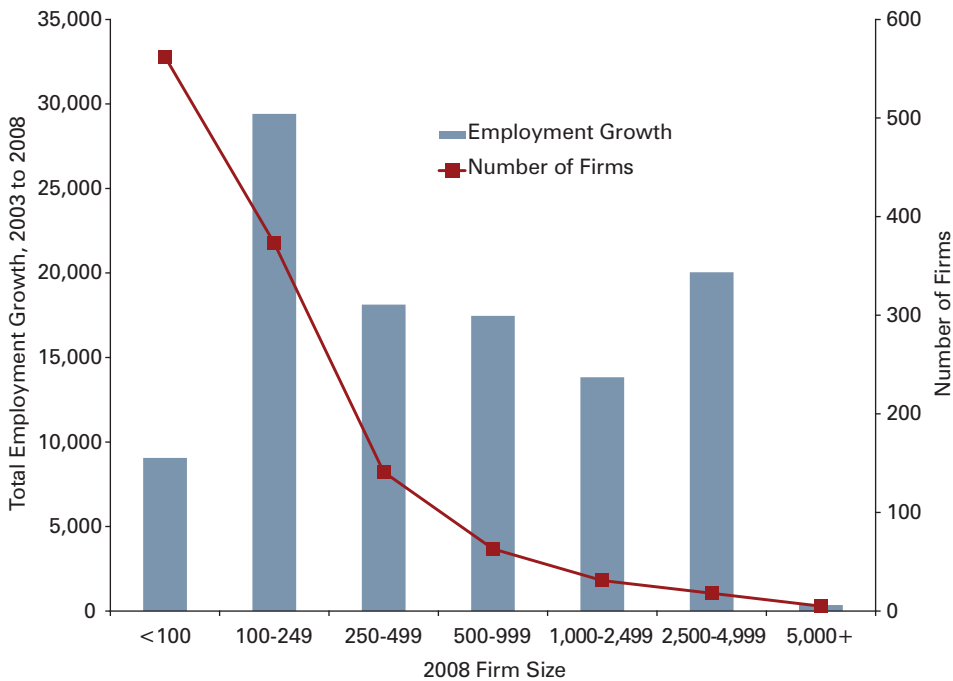
Source: IBRC, using Quarterly Census of Employment and Wages data

■ **TABLE 3: Industries Experiencing the Greatest Job Losses by Firm Type, 3rd Quarter 2003 to 2nd Quarter 2008**

	Industry	Employment Change
Homegrown	492 - Couriers and Messengers	-70
	515 - Broadcasting (Except Internet)	-55
	525 - Funds, Trusts, and Other Financial Vehicles	-51
	316 - Leather and Allied Product Manufacturing	-48
	516 - Internet Publishing and Broadcasting	-30
Parachute	541 - Professional, Scientific, and Technical Services	-584
	325 - Chemical Manufacturing	-268
	483 - Water Transportation	-245
	335 - Electrical Equipment, Appliance, and Component Manufacturing	-191
	322 - Paper Manufacturing	-117
All Other Indiana Firms	336 - Transportation Equipment Manufacturing	-17,977
	331 - Primary Metal Manufacturing	-16,257
	522 - Credit Intermediation and Related Activities	-10,327
	561 - Administrative and Support Services	-10,194
	722 - Food Services and Drinking Places	-8,281

Source: IBRC, using Quarterly Census of Employment and Wages data

■ FIGURE 2: Parachute Firm Size and Employment Growth<sup>5</sup>



<sup>5</sup> Recall that “jobs created,” or employment growth per firm, is not necessarily related to the size of the firm. Employment growth in this study is defined as new jobs that are created over the study period, irrespective of the initial size of the firm. For example, the number of jobs created at 5,000-plus employee firms is relatively small because it does not include the jobs transferred from one company to another through a change of ownership. While the Indiana operations of a firm may have employed 6,000 workers in 2008, the Indiana firm might have had 5,500 employees when an out-of-state company purchased it in 2005, thereby resulting in the creation of 500 net new jobs as operations expanded. Source: IBRC, using Quarterly Census of Employment and Wages data

2 also shows that Indiana is still a friendly home for manufacturing; for example, primary metal manufacturing is also in the top five parachute industries. With more than 11,000 jobs created, transportation equipment manufacturing is the third-highest job growth industry among parachute firms. This is especially interesting given that this industry experienced the largest job loss among all other Indiana firms, as shown in **Table 3**.

As **Figure 2** shows, parachute job growth derives from all different sizes of firms. The two categories that created the largest number of jobs were the 373 firms with between 100 and 250 employees and the 18 firms with between 2,500 and 5,000 employees in the state by the second quarter of 2008.

Clearly, Indiana is dependent upon investment originating from outside the state to create jobs.

### The Potential for Future Job Loss

Parachute firms added a considerable number of jobs to Indiana’s employment total, but in a sense, they merely compensated for the losses associated with the vast majority of Indiana firms. The homegrown category of firms was largely responsible for putting Indiana’s job growth in positive territory. Without those firms, Indiana would have gained less than 6,000 new jobs during the last economic expansion. Instead, because of the net new jobs created by small firms that grew into larger firms, the state gained over 86,000. To put these figures in perspective, consider that total private employment in Indiana was 2.5 million in 2008. While 86,000 is not a large percentage of the total,

6,000 does not even qualify as a rounding error.

Since these are firms that, at some point between 2003 and 2008, crossed the 50-employee threshold (and remained above that threshold until the second quarter of 2008), the question then becomes: how many jobs would have been forfeited if those small homegrown companies instead had remained at only 49 employees? That is, how many jobs were at risk of not being created if the companies had chosen not to cross the 50-employee threshold?

Why would small companies forego expanding beyond 49 workers? As noted above, the definition of a small firm is based on the employee threshold set in the ACA. Starting in 2014, this law will require all U.S. businesses with 50 or more employees to provide their employees with health insurance or pay a \$2,000 assessment for each person employed at the firm, exempting the first 30. For larger firms or rapidly expanding firms, this probably would not be an issue, either because they already provide health insurance in order to attract high-caliber talent or because they are growing so quickly that a \$2,000 surcharge per employee is relatively inconsequential. On the other hand, for slower-growing small companies in a challenging business climate, the marginal cost of that 50th employee might pose quite an obstacle to growth.

Because of the requirement to provide health insurance or pay the assessment, the firm faces a marginal cost of hiring a 50th employee that is more than double the marginal cost of hiring the 49th employee. Subsequent to the 50th employee, each new employee costs the firm an extra \$2,000 above salary to cover the ACA assessment. For a small business, paying essentially two salaries for one employee might be prohibitively expensive. For the firm looking to grow to 200 employees,

this would not be much of a concern, but the firm wondering if it should expand from 49 to 55 employees might just choose to continue without hiring, costing Indiana six jobs it otherwise would have gained.

To estimate the jobs at risk from the ACA, we looked only at homegrown firms. Obviously, parachute firms would not devote much consideration to the added cost because they are very likely to have more than 50 employees already outside Indiana. In addition, Indiana would not have missed out on all of the jobs that were created by the small homegrown firms because the majority of the net new jobs were created before the firms reached the 50-employee threshold. Thus, we needed to account for only the jobs created by small firms that crossed over the 49th employee threshold.

**Table 4** shows the number of firms at each employment level (condensed for parsimony) in the third quarter of 2003. Most of the threshold-crossers had no employees in the third quarter of 2003—these were new homegrown Indiana companies—but there were many small firms at all employment levels up to 49 workers. To calculate the number of jobs that would have been at risk had the ACA applied to company employment over the last expansion, we calculated the average growth per firm for each starting level of employment and subtracted the number of employees that the average firm hired beyond 49. For example, for firms starting with no employees, the average growth per firm past the 49th employee would be 5.6 jobs. We then multiplied the average growth per category over 49 by the number of firms in the category to find the total number of jobs that would have been at risk.

As **Table 4** shows, 12,698 jobs would have been at risk during the last expansion had the dictates of the ACA been in force. That is nearly 15 percent of the total employment

■ **TABLE 4: Total Employment Growth and Growth Above 49-Employee Threshold by Initial (3rd quarter 2003) Company Size**

Starting Employment	Number of Firms	Growth per Firm	Total Growth	Growth over 49
0	1,119	54.6	61,138	6,307
1	34	95.8	3,257	1,625
2	24	54.0	1,295	167
3	13	57.6	749	151
4	14	62.6	876	246
5	13	31.2	406	0
6	16	32.0	512	0
7	17	50.1	852	138
8	13	53.8	700	167
9	20	30.5	610	0
10 to 14	78	27.6	2,149	0
15 to 19	128	39.5	5,061	973
20 to 24	145	30.7	4,447	793
25 to 29	176	23.1	4,066	818
30 to 34	263	17.9	4,718	470
35 to 39	322	10.1	3,254	327
40 to 44	393	3.3	1,297	0
45 to 49	511	-0.5	-240	516
Total <sup>2</sup>				12,698

Source: IBRC, using Quarterly Census of Employment and Wages data

growth in Indiana over the five-year period.

While approximately 12,700 jobs at risk is an estimate, a casual look at **Table 4** reveals that for most firm-size categories, firms that crossed the threshold did not grow significantly past the 50-employee mark. As noted above, the marginal cost of those last few hires can be considerable. Every firm will have different cost structures, and so the marginal cost of a 50th employee will differ for each firm. However, assuming that this marginal cost would be prohibitively expensive for many firms, the effects on Indiana's employment could be substantial. In addition, this analysis does not address the issue of firms with slightly more than 50 employees dropping to 49 to not run afoul of the mandate.

Nor did we address the other job growth thresholds stipulated by the ACA that may place even more jobs created by small businesses at risk. The ACA put in place tax credits for firms with 25 or fewer employees in order to encourage

those small businesses to provide health insurance. As the employee count increases, the percentage of health care costs that firms can gain back in credits decreases, and once the employee count exceeds 25 employees, those credits disappear. Depending on the cost of the insurance to the business and the tax benefits of offering insurance, a business owner may forego expanding beyond 25 workers, or opt to drop employees to part-time work. Like the cost of the 50th worker explained above, the marginal cost of the 26th worker would be high. Finally, in an attempt to lower the cost of providing health insurance for small businesses, the ACA makes a provision to set in place lower-cost health insurance exchanges for small businesses so that these businesses can benefit from the same health insurance purchasing power of large companies. It is a worthy goal, but only firms with 100 or fewer employees are eligible to participate. Thus, there is yet another employment threshold that smaller

firms may not wish to cross. As a result, there may be considerably more jobs at risk due to the ACA mandate than the 12,700 figure estimated here.

### Conclusion

In conclusion, it is true that small businesses are the engines of job creation in Indiana, but not only that. Indiana is also dependent upon investment to parachute thousands of new jobs into the state. In the coming years, Indiana may see a boost in parachute jobs with the passage of right-to-work legislation.

The Affordable Care Act, however, unquestionably puts thousands of small business jobs at potential risk as the economy recovers. The data show that, absent small businesses and new investment creating jobs, Indiana would have hemorrhaged jobs, even during the last economic expansion. ■

### Notes

1. Indiana employment peaked in the second quarter of 2007 and fell by more than 20,000 jobs by the second quarter of 2008. We elected to keep the fifth year of the series for two reasons: One, to attempt to capture the effects of the efforts by the state to attract out-of-state investment by improving the state's business climate—a key economic development goal of the Daniels administration. Two, by including a period of small employment contraction to estimate the impact of small businesses and out of state investment, the resulting estimates are understated.
2. An observant reader would notice that the sum of total employment growth (column 4) in Table 4 does not match the total growth presented in Table 1. This is because the total job growth reported in Table 4 also includes the job growth attributed to investors buying another established Indiana firm and expanding employment after the change in ownership. Homegrown firms presented in Table 1 were owned by a single Indiana entity. As stated above, the challenge is to remove the false signals of a new firm, and newly created jobs, when the owner was the only thing that was new. Imagine the owner of a small carpet cleaning company retiring and selling the business to another Hoosier. The researchers' goal was to avoid incorrectly counting the jobs as lost and then

created. However, this in no way affects the final 12,698 job growth figure over 49 employees shown in Table 4. We constructed our data set to ensure that only actual employee growth is reflected in this number.