Where Are the Jobs?

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Without 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—the ACA calls this an assessment—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.

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Methodology

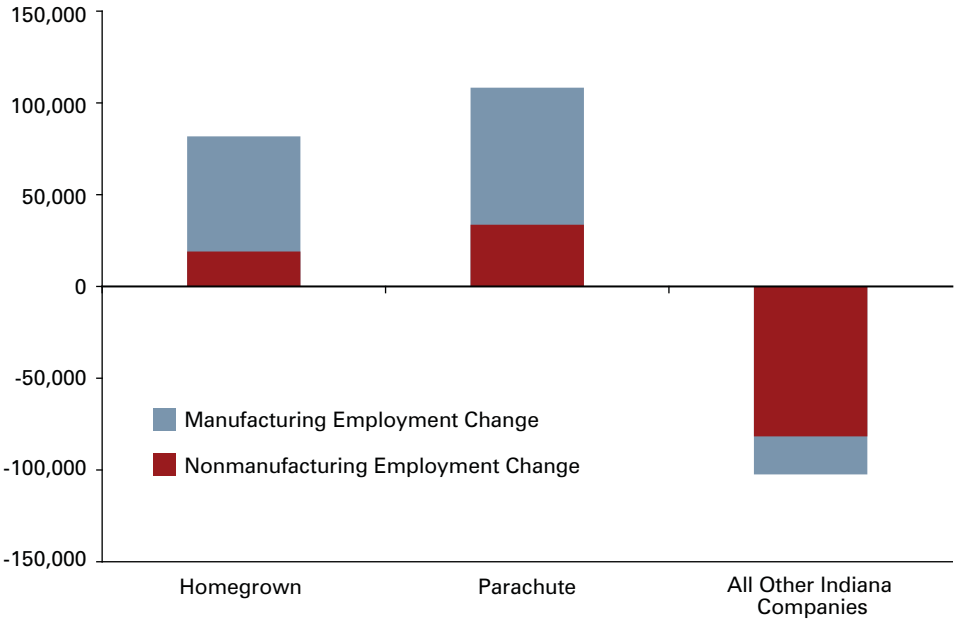
Quarterly Census of Employment and Wages (QCEW) data reported by the Bureau of Labor Statistics allowed us to track employment dynamics by company size and industry. Rather than having to adjust our results for the job loss of the Great Recession, we selected a five-year period during the last economic expansion and before the economy fell off the cliff, from the third quarter of 2003 to the second quarter of 2008.[1]

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

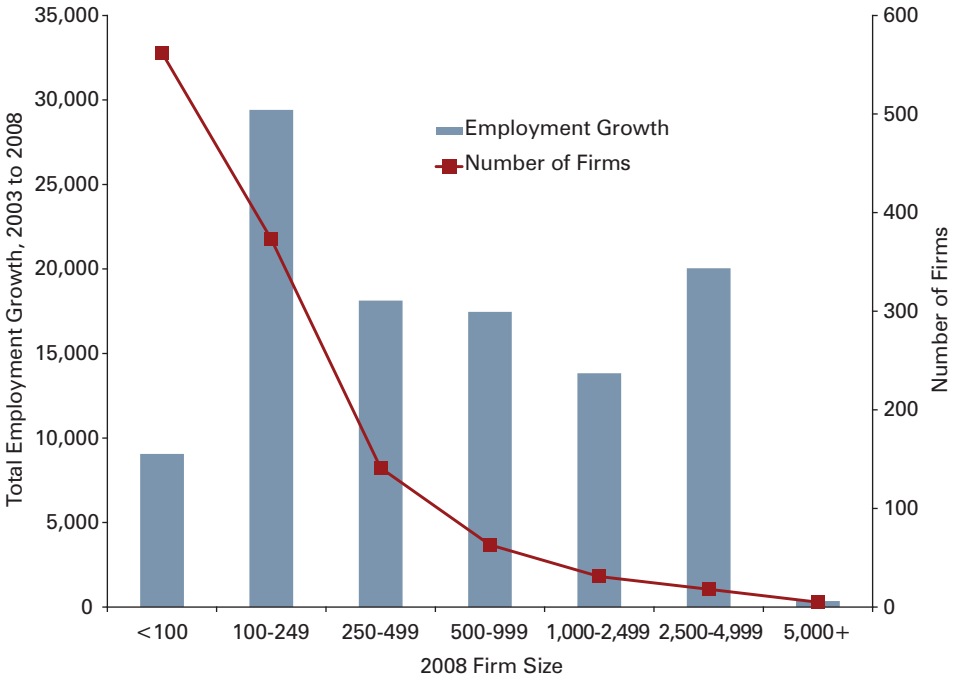
Source: IBRC, using Quarterly Census of Employment and Wages data

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[§]



[§] 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 growth in Indiana over the five-year period.

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 to19	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[2]				12,698

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

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.