

# Indiana's Special Sectors Outlook for 2009

November 2008

## Manufacturing

*Carol D'Amico: President and Chief Executive Officer, Conexus Indiana*

Manufacturing has been the heart of Indiana's economy for generations, and we continue to be one of the nation's most manufacturing-intensive economies—nearly one in five Hoosiers is employed in manufacturing industries, which contribute more than \$58 billion to state gross domestic product.

Indiana's manufacturing sector cannot be immune from the downturn in the national economy. 2008 saw a decline of two million units in the light vehicle market, with a further drop of 200,000 vehicles forecast in 2009, according to the University of Michigan. The poor performance of automakers like General Motors may manifest itself in cutbacks and "temporary idlings" at Indiana plants. The outlook for U.S. exports is also pessimistic as other industrialized economies slip into negative growth, which could pull Indiana's exports down from the record levels they have enjoyed over the past several years (driven primarily by manufactured goods).

However, Indiana offers several countervailing trends that may allow us to weather the national storm better than many. The state has ranked number one in attracting new jobs through foreign investment on a per capita basis for two years running.<sup>1</sup> In all, since 2005, Indiana has attracted approximately \$4 billion in new manufacturing investment, accounting for nearly 30,000 new job commitments. These job gains will help offset the losses that we may suffer.

Indiana's manufacturing sector also boasts strengths in pharmaceutical and medical device production, areas that are more resistant to economic cycles. Over the last few years, companies like the

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Cook Group, Baxter Pharmaceuticals, and Zimmer have announced the creation of thousands of well-paying jobs. As pharmaceutical outsourcing trends continue, Indiana's cluster of contract manufacturers (like Cook Pharmica) should benefit accordingly.

Indiana also has the potential to capitalize on the growth of the "clean technologies" sector, areas like fuel cells, biofuels, solar, and wind power—projected to more than triple over the next decade to represent a \$255 billion industry by 2017.<sup>2</sup> With a strong cluster of innovation-minded automotive manufacturers, public-private collaborations are emerging to push development of "next generation" plug-in electric vehicles and other green manufacturing initiatives in the state. These efforts may pay dividends as early as 2009—just look toward the northside of Indianapolis, where EnerDel (a manufacturer of advanced batteries for hybrid vehicles) is growing and adding hundreds of jobs.

The workforce remains a short-term strength and longer-term liability for Indiana manufacturing. The state's existing workforce is the most productive among neighboring states (measured by output per worker). But looking further ahead, as baby boomer retirements erode the existing labor pool, the low educational attainment of Indiana's adult population will be a persistent obstacle to growth in manufacturing when the economy emerges from the recession. Strengthening both the incumbent and emerging workforce should be the primary policy goal

for continued, sustainable success in high-tech manufacturing industries. ■

## Notes

1. *Inside Indiana Business*, "Indiana Leads the Nation in Attracting Foreign Jobs," October 22, 2008, [www.insideindianabusiness.com/newsitem.asp?ID=32161](http://www.insideindianabusiness.com/newsitem.asp?ID=32161).
2. *CleanEdge*, "Clean-Energy Trends 2008," [www.cleandedge.com/reports/reports-trends2008.php](http://www.cleandedge.com/reports/reports-trends2008.php).

## Logistics

*Carol D'Amico: President and Chief Executive Officer, Conexus Indiana*

Manufacturing and logistics are rightfully treated as separate economic clusters, with many unique opportunities and challenges. However, they are also inextricably tied together as part of the broader supply chain—it's difficult to divorce production from distribution. So the fortunes of the state's logistics sector will be influenced by manufacturing output to some degree, which should remain fairly consistent as our longer-term growth opportunities are tempered by the national downturn.

However, Indiana's unique geographic advantages (our location within a day's truck drive to two-thirds of the U.S. population and businesses) should continue to bolster growth (albeit slowed somewhat by the recession) in the distribution and warehousing sectors. Indiana ranks first among states in interstate access, ninth in total rail miles, and among the top fifteen in air and maritime freight. Looking ahead, ongoing investment in the state's highway infrastructure through the Major

Moves program, plus the opening of the new Indianapolis International Airport, will continue to strengthen the state's physical infrastructure to meet the demands placed upon it.

And these demands will grow. Despite the downturn, U.S. domestic freight volume remains on pace to double by 2035<sup>1</sup> and Indiana is poised to leverage its position as the "Crossroads of America" into new economic opportunities within the \$1.3 trillion domestic logistics industry.

Using quarterly workforce data from the Census Bureau and estimates of future economic activity predicted by the Fair model of the U.S. economy,<sup>2</sup> continued growth in Indiana logistics employment is projected through 2010, with the necessary caveats on the uncertainty of the depth and duration of the economic recession. Regardless, given the state's geography and infrastructure, we feel confident in identifying the logistics sector as a continued source of new jobs and business opportunities for Indiana's economy, and a strength which will complement growth in manufacturing and other industries. ■

### Notes

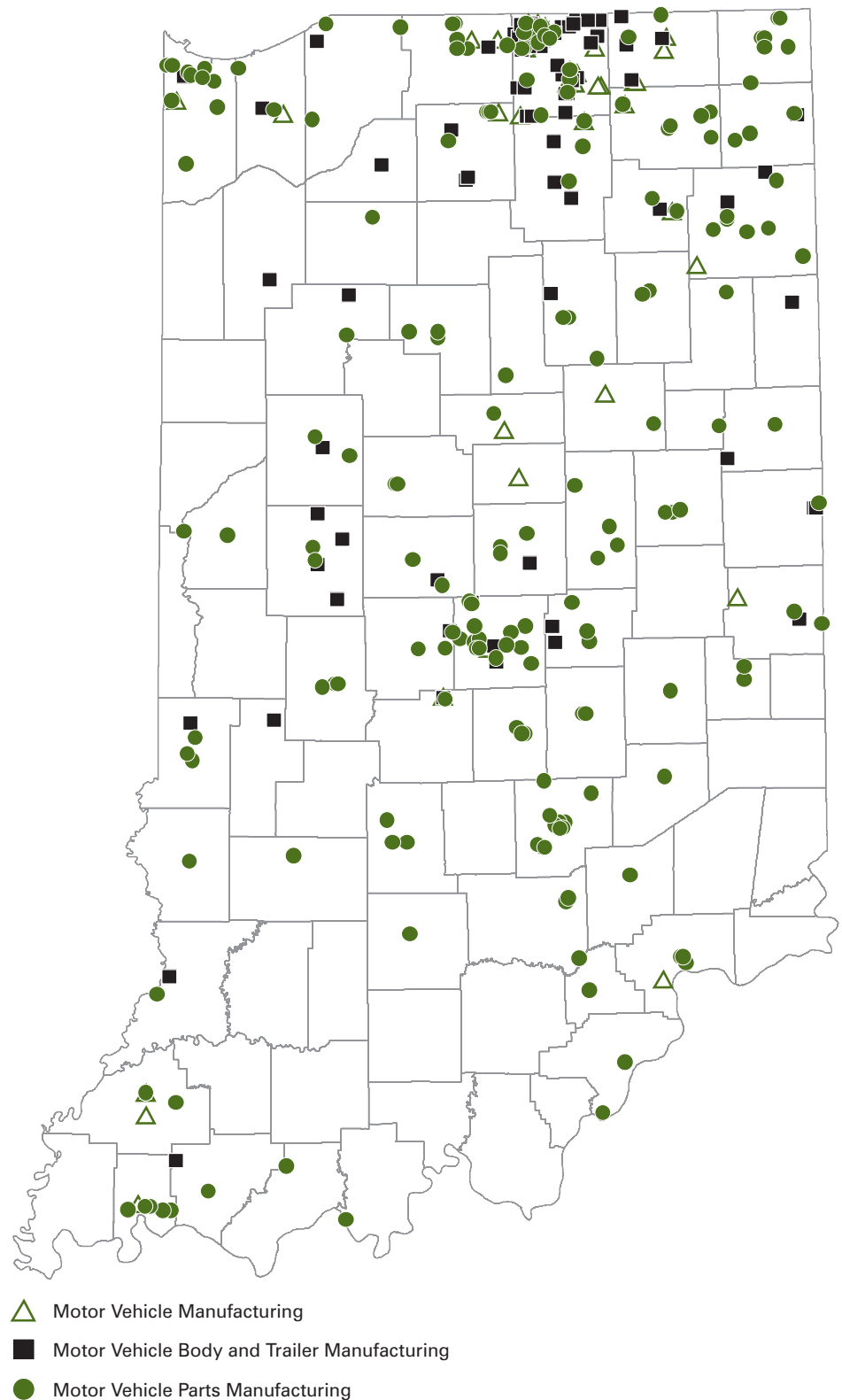
1. Federal Highway Administration
2. The Fair model is a widely used macroeconomic model of the U.S. economy developed by Ray C. Fair of Yale University.

### Automotives

*Jerry N. Conover, Ph.D.: Director, Indiana Business Research Center, Kelley School of Business, Indiana University*

One of the most visibly stressed sectors of the economy has for some time been the automobile industry. The November auto sales drop of 36 percent was the worst year-over-year change in twenty-six years. General Motors stock traded recently at under

■ FIGURE 1: Automotive Manufacturing Locations, 2008



Source: InfoUSA

\$3 a share, a 90 percent fall from a year earlier. United Auto Workers (UAW) members are worried not about increasing pay or benefits, nor even maintaining them, but whether they will even have jobs next year.

The “Detroit Three” automakers have begged for \$34 billion in federal loans, with two of the three pleading that they may go under without immediate help. At this writing, it is unclear how Congress and the current or new administration will respond to this request. In any case, the U.S. automotive sector going forward will doubtless look quite different than it does today (see **Figure 1**).

The Detroit Three are talking about cutting marginal brands, closing dozens of assembly plants, eliminating a quarter of their dealers, and laying off tens of thousands of auto workers as part of the companies’ efforts to regain competitiveness and justify the government loans. And these predictions do not encompass the much more numerous firms and workers of the larger automotive cluster that includes automotive parts manufacturers, automobile and parts dealers, service providers specializing in the auto sector, and others. Nor do they reflect the induced impacts that such major cutbacks would have on the larger economy as the auto sector’s payrolls shrink and there’s less money to spend on consumer goods and services.

Clearly, even in an optimistic scenario, the national automotive sector over the next few years will be significantly smaller than it is today. At best, it is years away from the handsome profits it enjoyed before fuel prices started soaring and the financial markets collapsed.

The pain of the auto sector will be felt as strongly in Indiana as anywhere in the nation. In 2007, 159,603 Hoosiers were on the

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payrolls of the sector’s 3,504 Indiana manufacturers and dealers, earning wages totaling more than \$8 billion. The vehicle and parts manufacturers, long the keystone in Indiana’s manufacturing economy, paid wages averaging \$55,915 per worker. Significant retrenchment in the auto industry will hit the state very hard, and it will probably take years before we again see a strongly profitable auto sector. ■

### Life Sciences

*Lawrence S. Davidson: Founding Director, Center for the Business of Life Sciences, Kelley School of Business, Indiana University Bloomington*

Indiana is fortunate to have more than its share of biotech, pharmaceutical, and medical device companies. Bloomington, Fort Wayne, Indianapolis, and Warsaw house one of the nation’s top enclaves of life sciences firms. It is no secret that these companies made record profits in 2008 and are generally less sensitive to business cycle downturns than are companies in consumer white goods or electronics. While a patient could theoretically take fewer pills than recommended, many health procedures are not so easily postponed. But that does not mean that recent trends won’t impact these companies. For example, an important national goal aims at reducing the growth of healthcare expenditures. This puts pressure on life sciences firms to increase quality while lowering the prices of their products and services. Many of these companies are laying off

workers. Many are changing their business models—replacing work done in-house with purchases from new vendors and partners. When Eli Lilly and Company announced that it is now a FIPNet instead of a FIPCo,<sup>1</sup> there was concern among some employees as to how that change will impact layoffs. Of course, the other side of the equation is that employment in many Lilly suppliers will increase. Lilly also exemplifies another industry trend as it evolves from traditional pharmaceutical manufacturing to a biotech firm focusing on proteins and cell structure.

Mergers, acquisitions, and other strategic alliances should strengthen Indiana pharmaceutical and medical device companies. Of course, all this takes money and credit. While many life sciences firms have cash now, the market and opportunity cost of funds is very high, and the availability is low. Venture and other forms of capital are much harder to attract these days, indicating that some promising new ventures and ideas may be postponed. Thus, while life sciences firms may be shielded somewhat from the current economic slowdown, they will not be immune to the experience of other firms. ■

### Note

1. A FIPCo (Fully Integrated Pharmaceutical Company) typically keeps research and development functions in house and behaves fairly independently. A FIPNet (Fully Integrated Pharmaceutical Network) encourages partnerships with contract service providers in an effort to drive collaboration, share risk, and reduce costs. In essence, a FIPNet outsources research and development functions to contractors.