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- *Illinois' loss of manufacturing employment was not unique to Illinois.*
- *The slow increases in employment are partly explained by the use of new and improved technology.*
- *Business outmigration was not a large determinant in employment declines.*
- *Illinois had a net outmigration of less than one-half of one percent of the businesses in the state.*
- *Illinois ranks high among states in the production of exports. This suggests that improvements in the world economy will positively affect Illinois' future.*
- *Economic trends suggest a more positive economic outlook for Illinois.*

issue: *Illinois in the Post-Recession Recovery: A Fresh Look at the State's Progress*

by Norman Walzer and Andy Blanke

Editor's Note: In this issue, the authors offer a significant new perspective on the causes and nature of the economic malaise currently afflicting the state. While not necessarily at odds with the conventional wisdom about the causes of the state's current economic difficulties, the findings and conclusions presented herein provide important new insights on the outlook for the state's medium and long range economic future.

Conventional wisdom holds that Illinois has responded poorly to the economic recovery from the "great recession" that began officially in June, 2009. Many workers in Illinois, as well as those in other states, left the workforce during the recession and the state has experienced relatively slow increases in employment during the five-year recovery period (2009 to 2013) and has yet to reach its pre-recession employment levels. However, other large manufacturing states experienced similar trends and, as will be noted later, Illinois fared better in terms of manufacturing employment than states such as Indiana, Iowa, Michigan, Minnesota, and Ohio during the recovery. Thus, these trends suggest that many factors are involved and should be examined in more detail.

There is evidence that the reasons offered by conventional wisdom for this slow response do not tell the whole story. A growing understanding among some economists is that long-term technology changes under way also help to explain Illinois' slow employment growth. Recognizing and understanding such changes provides insights into the types of remedies necessary to stimulate jobs.

To provide a more complete understanding of how Illinois has fared in recent years, this analysis will summarize the state's record in responding to the economic recovery efforts, utilizing indicators in addition to employment in the process. Then it will:

- Examine the economic structure in Illinois and how it has changed;
- Use several objective measures to track performance in manufacturing since this sector pays well and supports jobs in many related industries; and
- Describe strategies proposed in the recent Department of Commerce and Economic Opportunity (DCEO) Five Year Economic Development Plan and other possibilities.

How has Illinois fared in the economic recovery?

Illinois' decrease in manufacturing employment (-33.4% between 2009 and 2013), while substantial and serious, was not unique to Illinois or even the Midwest. Heavily industrialized states such as New York (-38.8%), Michigan (-37.8%), and Ohio (-35.3%) lost more; California (-33.0%) was about the same as Illinois. More agricultural states

such as Indiana (-25.9%), Missouri (-30.5%), and Wisconsin (-23.3%) did not lose as much. Between 2000 and 2013, the manufacturing share of total employment in the U.S. declined from 13.3 percent to 9.0 percent while Illinois declined from 14.6 percent of state employment to 10.2 percent **(see Figure 1)**. So, relatively speaking, Illinois has had a comparable experience as the nation regarding changes in the relative importance of manufacturing employment.

During the 2009-2013 recovery, Midwestern states such as Michigan (-19.2%), Indiana (-11.3%), Iowa (-5.7%), Ohio (-5.2%), and Wisconsin (-4.7%) continued to lose proportionally more manufacturing than Illinois (-.2%) although New York (4.4%), California (2.3%), and Missouri (1.0%) turned their manufacturing sectors around and gained during this period.

These trends may overstate the actual declines in total manufacturing employment if companies either (a) outsourced some management and administrative functions, which would cause them to be classified differently; or (b) they increased part-time or overtime employment instead of hiring additional full-time workers.

What factors other than employment might be causing Illinois' economic difficulties?

One line of reasoning suggests that public policies may hold back Illinois' economic recovery. For instance, the impact of the state income tax increase in January 2011 has been discussed. Studies have also suggested that many states, including Illinois, have experienced slow increases in employment because of both the industrial composition within a state[1] and policies that do too little to encourage private investment.

Figure 1 Manufacturing Share of Total Employment in Illinois and Competing States*
States with the strongest gains in manufacturing employment between 2009 and 2013 are listed first.

	Manufacturing Share of Total Employment		Change in Total Manufacturing Employment	
Area	**2000**	**2013**	**2000-2013**	**2009-2013**
U.S.	13.3%	9.0%	-30.7%	-1.6%
New York	8.8	5.2	-38.8	4.4
California	12.5	8.1	-33.0	2.3
Missouri	13.6	9.6	-30.5	1.0
Illinois	14.6	10.2	-33.4	-0.2
Minnesota	15.2	11.4	-22.5	-2.4
Texas	11.5	7.9	-18.1	-4.3
Wisconsin	21.7	16.7	-23.3	-4.7
Ohio	18.6	13.0	-35.3	-5.2
Iowa	17.4	14.3	-14.7	-5.7
Indiana	22.6	17.3	-25.9	-11.3
Michigan	19.4	13.8	-37.8	-19.2

**States listed are those used by the DCEO as comparables in its strategic plan, including surrounding states in the Midwest and the industrial states of New York, California, and Texas.*
Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, 2014.

Testa, in comparing Illinois with other Midwestern states, examined the roles that fiscal uncertainty in Illinois may have had on economic performance, but he also suggested that other long-term structural factors may be at work in Illinois. He observed that Illinois' performance prior to the recession may have been overstated, given adverse structural trends in states such as Michigan which suffered from cutbacks in the auto industry.[2]

In short, there have been changes in the economic structure of Illinois and other states that might bear heavily upon the way they have responded to the economic recovery. Especially important are long-term changes in technology and its role in reducing the need for labor.

How and why does economic structure matter?

The fate of a state economy is strongly affected by its industrial structure as well as sensitivity to the business cycle and long-term global trends. Illinois has a strong manufacturing employment base (10.2% of total employment in 2013, **see Figure 1**) but, over the long-term, employment has declined because of technological advancements and modernization processes that increased productivity. Likewise, many routine lower-paying production jobs in manufacturing went to less expensive off-shore locations. Both of these trends have a bearing on employment changes in Illinois during the recovery.

Measuring performance of the Illinois economy requires additional productivity measures such as value-added or Gross Domestic Product rather than focusing solely on employment. These productivity measures are often linked to wages or incomes of workers and therefore affect the economy. This is not to minimize, in any way, the importance of increasing employment and quality jobs; rather, it is to say that accurately judging economic performance and designing effective policies demand a broader perspective. The relative trends in employment and productivity among key Illinois industries, described below in the discussion of how Illinois has responded to the economic recovery, illustrate these differences.

What is the impact of "value-added" on economic recovery conditions?

Trends in value-added during the recovery tell a somewhat different story about the Illinois economy since 2000 than does only a comparison of employment trends. In a recent study of long-term growth in value-added, Moran and Oldenski reported that the U.S. "has been growing rapidly for more than four decades, and is on track to surpass the all-time 2006-2007 high before the end of 2014." Between 2000 and 2013, aggregate manufacturing value added per employee[3] in Illinois increased 55.9 percent and was 167.1 percent of the state average for other industries in 2013 in spite of the employment declines **(see Figure 2).** Thus, while manufacturing employs fewer people, the value of what they produce

Figure 2 **Employment and Value-Added (VA) in Illinois Industry Sectors, 2000-2013**

Industries with the highest value-added per employee in 2013 are listed first. Figures in brackets are negative numbers which indicate industries that lost employment or value-added per employee. However, an industry that lost employment or value added since 2000 can still have high value-added in 2013.

	Private Nonfarm Employment			Value-Added Per Employee		
	% Change 2000-2013	% of Total in 2000	% of Total in 2013	VA Per Emp. in 2013	2013 % of State VA Per Emp.	2000-2013 % Change in VA Per Emp.
Total, All Private Nonfarm Industries	**4.00**	**100.00**	**100.00**	**93,675**	**100.00**	**12.68**
Utilities	(25.90)	0.50	0.40	600,669	641.20	32.16
Real Estate & Rental	30.90	3.50	4.40	310,659	331.60	(11.90)
Information	(28.80)	2.70	1.80	207,312	221.30	91.39
Mining	45.80	0.30	0.40	162,851	173.80	(35.17)
Manufacturing	(30.80)	13.80	9.20	156,517	167.10	55.91
Wholesale Trade	(5.20)	5.30	4.90	142,609	152.20	25.03
Management of Companies	37.30	1.20	1.60	138,603	148.00	14.96
Finance & Insurance	12.60	7.10	7.70	122,104	130.30	9.02
Professional Services	8.20	7.80	8.10	107,437	114.70	17.01
Transportation & Warehousing	8.20	4.60	4.80	79,460	84.80	13.42
Construction	(15.40)	5.90	4.80	68,409	73.00	(20.78)
Health Care	24.30	11.00	13.10	58,593	62.50	16.24
Retail Trade	(6.00)	12.00	10.90	53,614	57.20	29.31
Administrative Services	15.70	7.10	7.90	44,746	47.80	20.39
Arts & Entertainment	19.30	2.00	2.30	39,557	42.20	(2.45)
Education	52.90	2.10	3.10	38,327	40.90	(26.09)
Other Services, Excluding Public Administration	17.10	6.20	7.00%	38,056	40.60	(11.74)
Accommodation & Food Service	16.00	6.70	7.50	36,808	39.30	8.42
Natural Resources	11.70	0.20	0.20	26,034	27.80	13.15

Source: Regional Economic Models, Inc., 2014.

increased substantially and the percentage increase in value-added was greater than the percentage decline in employment.

Likewise, manufacturing Gross Domestic Product[4] in Illinois, (in constant dollars) increased 17.3 percent during the post-recession years, according to the U.S. Bureau of Economic Analysis, compared with 12.9 percent for the U.S. Some of the productivity growth involved purchases of new equipment. According to data from Regional Economic Models Inc., gross investment in equipment and intellectual property products increased 24.6 percent in Illinois between 2009 and 2013.

Such was not the case with all industries in Illinois, however. For example, the mining industry reported a 45.8 percent increase in employment, but with a 35.2 percent decline in value added per employee. As mining employment grew, total value added in the sector decreased 5.5 percent.

This comparison illustrates that industry adjustments to changes in technology affect the numbers of employees needed as well as relative pay levels for jobs. Illinois is gaining more highly-skilled jobs and is losing lower-paying, routine jobs to technology and off-shore locations. There is clear evidence, however, that the outmigration of these jobs has contributed to growth in higher paying research and development jobs in the U.S.[5] Along the same lines, there is some evidence that, because of cheap natural gas and other factors, some companies are reshoring manufacturing jobs, including some routine production occupations.[6] A more detailed examination of employment changes in Illinois during the recovery reinforces these trends. The reshoring movement could benefit Illinois if tax burdens and services are competitive.

What has been the value-added trend in Illinois?

This study applied a commonly-cited statistical technique, shift-share analysis, on value-added data from 2009-2013. It differentiates the value-added changes into those resulting from trends in the U.S. economy, the Illinois industrial structure, and conditions within Illinois **(see Figure 3)**. This third factor (competitive share) is especially relevant in discussions about policy changes since it isolates factors that may account for the competitiveness of Illinois versus the U.S., some of which involve programs or resources specific to Illinois.[7]

During the recovery years, manufacturing value-added in Illinois increased an estimated 16.7 percent or $13.673 billion even with declines in employment.[8] In fact, value-added per employee increased 14.6 percent. The value-added increase can be separated into $9.622 billion if all industries in Illinois had increased at the U.S. economic growth rate (11.8 percent) during this period. Had manufacturing value-added in Illinois increased at the same rate as manufacturing nationwide, Illinois would have increased $2.595 billion (15.0 percent). The remaining increase of $1.456 billion in value-added (1.8 percent) is attributable to factors in Illinois that differ from the nation.

Figure 3 Shift-Share Analysis for Manufacturing Value-Added in Illinois, 2009-2013

Indicator*	Amount	
2013 Value-Added	$95,327,316,284	
Value-Added Change, 2009-2013	13,673,416,138	(16.7%)
National Share	9,622,194,453	(11.8%)
Industry Mix	2,595,478,492	(15.0%)
Competitive Share	1,455,743,193	(1.8%)

Source: Regional Economic Models, Inc., 2014.
**National Share indicates manufacturing value-added change in Illinois attributable to national trends occurring across all industries. Industry Mix indicates manufacturing value-added change in Illinois attributable to national trends in the manufacturing industry. Competitive Share indicates manufacturing value-added change in Illinois attributable to the manufacturing industry growing at a faster rate in Illinois than the nation.*

Higher value-added per manufacturing employee is also reflected in wages. According to the Bureau of Labor Statistics *Quarterly Census of Employment and Wages,* Illinois manufacturing employees earned an average of $63,456 annually in 2013, or 120 percent of the average wage for all industries, and their wages had increased more quickly than the average of other industries. The average wage for manufacturing employees (in constant dollars) increased 4.4 percent between 2009 and 2013 while average wages in other industries grew 0.1 percent.

In summary, the comparisons of value-added during the economic recovery make two important points. First, manufacturing plants are modernizing and in the process have introduced advanced machines and processes that allow fewer workers to produce more. At the same time, the skills required to operate these machines are

higher and require better trained workers who presumably are paid more. Second, despite the attention paid to employment, contributions by manufacturing to the economy have increased during the recovery. ***In fact, Illinois manufacturers outpaced their national manufacturing counterparts in value added.*** This suggests that the Illinois' economy may be stronger than depicted by focusing only on its problems with unemployment.

Key finding: The slow increases in employment during the recovery are partly explained by businesses converting to the latest technology. Using new technologies enables businesses to meet increased demand with fewer employment increases.

But what about Illinois' unemployment problem?

While value-added may be increasing, Illinois nevertheless must address the shifts in economic structure with aggressive efforts to increase the number of quality manufacturing jobs available to the state's residents. Efforts to do so must involve:

- Improving the balance between businesses coming into the state and those leaving the state,
- Encouraging new manufacturing business start-ups, and
- Helping existing Illinois manufacturers grow and expand.

High on the list of actions that can be taken to address Illinois' unemployment problem is to provide an environment that incentivizes entrepreneurs to start businesses or to help small established businesses (second stage companies) reach higher employment levels. These options are examined next by comparing businesses leaving Illinois with those starting or coming into the state.

Business Migration. Understanding employment trends requires differentiating between cutbacks by current businesses and outmigration from Illinois. Obtaining detailed information on these movements is difficult, but the National Establishment Time Series (NETS) data used in this analysis distinguish between business closures and migrations from Illinois.

A comparison of Illinois with surrounding and industrial states **(see Figure 5 on the next page)** shows that Illinois overall had a net *loss* of 1,483 business establishments (incoming minus outgoing) between 2009 and 2013. This loss represented a decline of less than one-quarter of one percent (.19) of total establishments in Illinois. Surrounding states such as Indiana, Kentucky, Michigan, and Iowa had similar experiences. California and New York also lost businesses during the recovery while Texas gained 3,893 businesses net of companies leaving the state.

When adjusted for population size, Illinois lost 1.15 businesses per 10,000 residents, higher than Indiana (-.36), Kentucky (-.37), Wisconsin (-.37), and California (-.44), but less than Michigan (-1.23), Iowa (-1.76), and New York (-2.02). The businesses lost involved mainly sole proprietorships followed by companies with 2 to 9 employees.

Key finding: Overall, business outmigration was a factor in employment declines, but not a large determinant because the highest outmigration involved mostly small businesses.

Net Business Starts. A wholly different picture emerges, however, when new business start-ups are added to the business migration figures **(see Figure 4).** Data from the BLS *Quarterly Census of Employment and Wages* show that, when new business start-ups, including sole proprietorships, are added to the net migration data, ***Illinois experienced a net increase of 26,952 more businesses operating in 2013 than in 2009.***

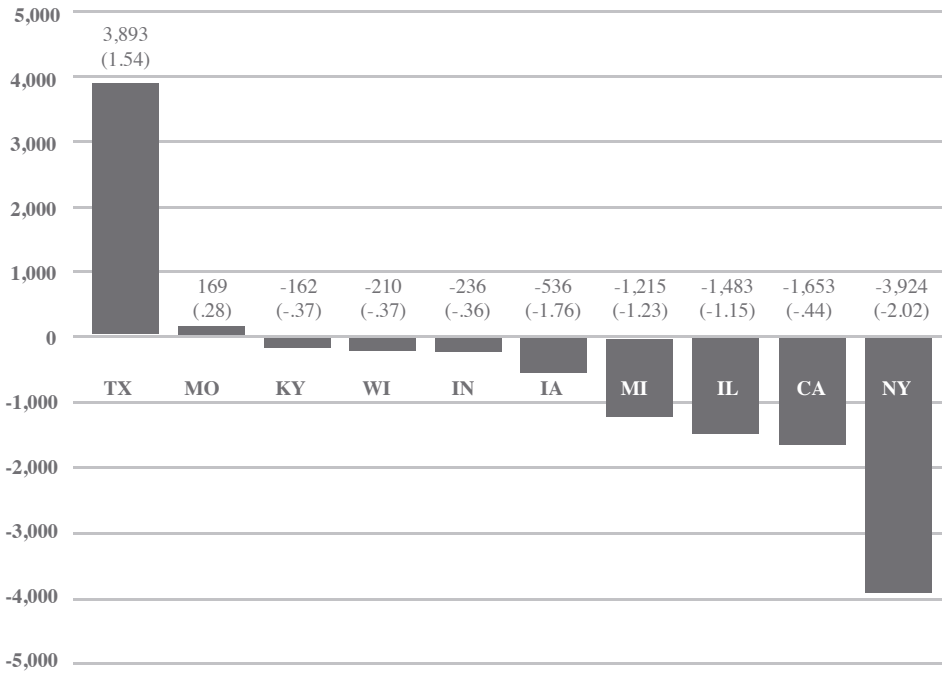
Figure 4 Businesses Starts and Expansions Versus Closures and Downsizing

	Businesses		Jobs	
Year	Opened	Closed	Gained in Starts and Expansions	Lost in Closures and Downsizings
2009	28,051	(33,778)	354,309	(605,370)
2010	28,960	(32,090)	360,332	(497,490)
2011*	29,352	(29,300)	434,936	(353,669)
2012*	30,418	(28,934)	455,260	(362,783)
2013	27,213	(30,562)	437,431	(399,361)
2009-2013	143,994	(154,664)	2,042,268	(2,218,673)

*Businesses opened exceeded businesses closed, and job gains from expansions exceeded jobs lost in downsizing.

Source: U.S. Bureau of Labor Statistics, Business Employment Dynamics, 2014.
All data is for March of the corresponding year. ***Data excludes businesses and employment in sole proprietorships, although Illinois experienced a net gain of 26,959 in total number of businesses after including sole proprietorships.***

Figure 5 2009-2013 Net Businesses Moved In (Per 10,000 Residents)*



**States selected are those adjacent to Illinois plus the three states the DCEO uses in its strategic plan as comparables outside of the Midwest.*
Source: National Establishment Time Series, youreconomy.org, 2014.

This placed Illinois 4th among comparison states, surpassed only by Texas (42,149), New York (30,613), and Florida (30,120). Because state population size is important in these comparisons, the data were converted to *net* new establishments per 10,000 residents and Illinois (21.0) ranked behind the District of Columbia (22.6), Kentucky (22.6), Washington (33.9), Nebraska (51.3), and North Dakota (73.2).

The additional establishments started in Illinois during the five-year recovery represented a 7.2 percent growth rate. However, businesses usually start small so even though Illinois did well by this measure, the overall impact on employment may not be as large as expansions of existing companies. According to the Business Employment Dynamics dataset from the BLS, during the 2009 to 2013 period, 549,000 jobs were added from new businesses opening in Illinois while 1,493,000 jobs were added by business expansions.[9] Excluding sole proprietorships, job losses in business closures and cutbacks exceeded job gains from starts and expansions.

However, most of the job losses occurred in 2009 and 2010, and the jobs added in business expansions exceeded those lost in cutbacks by more than 50,000 each year between 2011 and 2013. Regardless, the number of jobs added in business starts and expansions has yet to replace all jobs lost from closures and cutbacks since 2009. Between 2009 and 2013, *excluding sole proprietorships,* Illinois lost 109,674 jobs due to business downsizings in excess of business expansions, and 66,731 jobs were lost due to business closures in excess of business starts.

Migration and relocations are part of the normal business process, but they are also a factor in overall employment changes. In this case, however, the news is less positive for Illinois **(see Figure 4).** For instance, according to National Establishment Time Series data in Figure 5, between 2009 and 2013 Illinois experienced a net loss of 1,483 business establishments compared with net losses of less than 600 in neighboring states such as Iowa, Kentucky, Indiana, and Wisconsin. Outside the Midwest, some large industrial states also suffered heavy net losses, with a net decrease of 3,924 businesses in New York and a loss of 1,653 in California. Missouri is the only bordering state that reported a net migration increase (169 businesses), and Texas is an industrial state with a net migration increase of 3,000 companies.

While net loss of business establishments from Illinois is higher than neighboring states, when expressed in the context of overall magnitude, the net outmigration represents 0.19 percent of the establishments in Illinois in 2009. In addition, the number of jobs lost due to companies leaving Illinois exceeded the jobs added by companies moving in by 17,543, which represents 0.25 percent of all jobs in Illinois in 2009. Thus, while still important, the outmigration is small relative to the overall state economy, but may be more of a factor in border counties where businesses can relocate at small cost and distance to take advantage of incentives while still serving essentially the same markets.

Key finding: Despite a net outmigration of 1,483 businesses during the 2009-2013 recovery period, and with a net increase in business start-ups during the same period, Illinois experienced a net gain of 26,952 businesses during the recovery period.

This should leave Illinois in a good position to experience future employment increases.

How does Illinois compare in tax rates?

Popular discussions of business relocations often focus on tax rate or burden which is sometimes seen as a major consideration affecting success in business attraction. Incentive packages used by states to attract specific businesses are complex and often are tailored to the needs of specific companies. Such packages make it difficult to compare overall state and local tax burdens as companies pit one state against another in negotiating tax concessions.[10]

Illinois ranks 31st in the Tax Foundation's 2014 State Business Climate Index, but several neighboring states including Ohio (39th), Iowa (40th), Wisconsin (43rd), and Minnesota (47th) ranked worse. However, Indiana and Michigan ranked higher (10th and 14th).

In addition, although Illinois is sometimes labeled a high expenditure state, data from the National Association of State Budget Officers show that the state's total expenditures per capita are average among Midwestern states.[11]

A recent ranking by *Site Selection* magazine ranked Illinois as the 19th best state nationally for relocation.[12] However, some neighboring states including Ohio (4th), Kentucky (9th), Indiana (10th), and Michigan (16th) ranked better indicating that Illinois still has work to do in competing for business activity.

What about exports?

The Illinois economy is also affected by conditions in the global economy because 9.2 percent of Illinois Gross Domestic Product (GDP) is tied to exports. Illinois ranked 6th among states for total exports in 2013 and 16th for exports as a share of GDP. In addition, Regional Economic Models, Inc. estimates that companies exporting internationally represented 5.1 percent of private nonfarm employment in Illinois in 2013, and total employment in those companies increased 15.5 percent between 2009 and 2013.

Even though the world economy has been sluggish, Illinois' exports increased 31.5 percent between 2010 and 2013, ranking it 11th highest among all states in export growth and well above Iowa (19th), Indiana (28th), and Wisconsin (32nd).[13] Continued prosperity of Illinois' trading partners should bode well for Illinois industries and contribute to future employment growth, depending on the industries affected. Access to global markets through centers such as Chicago provides opportunities for companies in Illinois to market their products effectively and competitively. The extensive and modern transportation system linking Chicago to other locations throughout the state is a decided advantage in marketing globally.

Key finding: The Illinois economy is affected by global recovery conditions because a relatively high percentage of GDP is linked to international trade. However, the fact that Illinois ranks high among states in growth of exports suggests that improvements in the world economy will positively affect Illinois' future.

Does Illinois have a plan?

The Illinois Department of Commerce and Economic Opportunity (DCEO) released a five-year statewide Economic Development Plan in July 2014. The plan includes several key elements intended to increase employment in Illinois.

First, the plan is regionally-focused. It identifies the particular assets in the various regions and uses them as a basis for selecting which industries to target for stimulus. Manufacturing plays a prominent role in the plan.

Second, the plan identifies industries with a strong presence in Illinois which are projected to experience strong employment growth and which pay relatively high wages. A cluster analysis conducted by Northern Illinois University's Center for Governmental Studies shows that such industries exist around the state and have good opportunities to expand. Even more importantly, most such industries are projected to add significantly to the state's future GDP.

Third, the plan recognizes the importance of a high quality labor force. The population in Illinois is relatively well-educated compared to the U.S. as a whole, but efforts must be made to transition those educational credentials into the current skills needed for advanced manufacturing techniques and to meet the job qualifications required by other high-paying industries. Many workforce agencies, with support from the federal and state government, are already engaged in upgrading the skills of the labor force.

Fourth, the statewide plan recognizes the importance of commercializing new technology. The recently announced Digital Manufacturing and Design Institute in

Chicago will help businesses introduce some of the latest technological advances by linking higher education and research agencies with businesses.[14] Between 2003 and 2012, licensing of patents in universities lagged the nation[15] and the DCEO plan waives state income taxes for eight years for entrepreneurs who commercialize these patents and create businesses.

Is the plan alone sufficient to significantly increase statewide employment levels?

No. The most important element will be aggressive local efforts to implement the strategies and recommendations. Since the statewide plan is regionally focused, it will rely on efforts by local, regional, and state economic development agencies collaborating with business and community leaders to craft sound development strategies. A strategic approach is needed that builds on regional assets and resources as well as the unique contributions that the State of Illinois can provide.

The Tax Foundation provides another measure of business tax burden, in which Illinois ranks 31st, but several other Midwestern states ranked worse, including Iowa (40th), Minnesota (47th), Ohio (39th), and Wisconsin (43rd) **(see note 10 and Figure 6).** Although the Tax Foundation generally assigns low ranks to Midwestern states, Illinois fares better than some neighboring states. However, the Tax Foundation ranks Michigan, Missouri, and Indiana in the top 20 states for business tax climate. Tax burden rankings from Anderson Economic Group and the Tax Foundation have conflicting results for individual states, but in both cases Illinois was competitive on taxes in the Midwest.

Figure 6 Selected Business Climate Rankings for Illinois and Surrounding States

State	Anderson Economic Group	Tax Foundation	Info Tech & Innov Fndn (New Economy Index)	*Site Selection* Magazine (Only lists top 25)
Iowa	12	40	38	25
Illinois	**20**	**31**	**16**	**19**
Indiana	28	10	35	10
Kentucky	34	27	44	9
Michigan	44	14	17	16
Minnesota	23	47	13	Bottom 25
Missouri	18	16	33	Bottom 25
Ohio	33	39	25	4
Wisconsin	35	43	29	Bottom 2

Note: Lowest number is the highest rank.

Source: Anderson Economic Group, 2013 State Business Tax Burden Rankings; Tax Foundation, 2014 State Business Climate Index; Information Technology and Innovation Foundation, The 2014 State New Economy Index; Site Selection magazine, November 2013, http://www.siteselection.com/issues/2013/Nov/Cover.cfm

It is encouraging that Illinois ranked 16th overall in 2014 (up from 20th in 2012) on the New Economy Index (NEI) which has five main components: knowledge jobs, globalization, economic dynamism, the digital economy, and innovation capacity. The NEI is built on 25 indicators associated with the capacity to participate in the "new economy."[19] While Illinois' rankings on the various sub-indices were fairly consistent, it scored especially well on high wage traded services (6) and venture capital (9).

Not only does Illinois rank high in its own right on the New Economy Index, it also outperforms nearly all other Midwestern states. Only Minnesota ranked higher, at 13th. The only Midwestern state besides Illinois and Minnesota in the top 20 is Michigan, at 17th.

Site Selection Magazine ranks Illinois as the 19th best state for relocating companies, above Iowa, Minnesota, Missouri, and Wisconsin (see note 12). However, Indiana, Kentucky, Michigan, and Ohio all rank higher. *Site Selection* generally ranks Midwestern states highly and Illinois has fared better on this measure than some of its neighbors, but more work can be done to remain competitive with states that ranked higher. Examination of various business climate indices suggests that Illinois has done much in competing with other states, although Illinois still has some catching up to do. The strategies in the DCEO plan can provide the first steps forward.

Barriers to development still exist and Illinois has to resolve the uncertainties surrounding the state's current fiscal situation. Sometimes overlooked, though, are important areas where Illinois does

well. As a state, Illinois ranks competitively in overall state and local tax burden. Recent comparisons of states by the Anderson Economic Group (2013) ranked Illinois 20th among states in tax burdens measured by share of pre-tax operating surplus and 14th in taxes collected from businesses as a percent of GDP, ahead of Iowa (21st), Wisconsin (31st), and Indiana (35th), but lower than Missouri (8th).[16]

Illinois is located in the center of the U.S. with a well-travelled transportation system that provides excellent access to global markets through its highway, rail, and air travel networks. There are more than 80 foreign consulates located in Chicago from which assistance with international trade, travel, and business matters can be conveniently handled.[17] Illinois leads the Midwest and ranks 8th among all states in the number of venture capital deals and 7th in total venture capital investment in 2012 and 2013. This means that Illinois provides excellent opportunities for business start-ups.[18]

Observations

Efforts to attract jobs during the national economic recovery have fueled extensive competition among states as they pursue business investment. While some competition can be healthy, it can focus on negative factors rather than on considerations that build for the future.

Like most states, Illinois has missed opportunities to improve its business climate and be more attractive for business investment, but there is good reason for optimism. Examining economic trends other than simple employment data shows: 1) that Illinois has resources and opportunities for business development, and 2) that Illinois businesses are engaged in long-term adjustments to increase their productivity.

As a result of efforts to increase their use of technology, Illinois businesses now need fewer employees to generate pre-recession production levels. The upside of this achievement is that Illinois is keeping pace with rapidly evolving business trends. The downside, however, is that regaining Illinois' former employment levels may take more time and will require new industries designed to meet changing business demands. To achieve these goals, the State of Illinois has a new five-year strategic plan that addresses issues raised by changing technology and encourages investment in developing business sectors. While not a complete solution, it is a step in the right direction and offers opportunities for regional development agencies to take the lead in revitalizing their economies and, in turn, stimulating the entire state.

Has Illinois yet recovered from the recession? Definitely not. Key will be concerted efforts by local and regional development agencies collaborating with existing businesses and state agencies to make the statewide strategic plan reach its potential. State and local governments must work together and with businesses to identify emerging industries and provide a stable and positive environment for business investment in Illinois.

Appendix. Description of Data Sources

On most economic issues, multiple data sources offer related, but sometimes conflicting information. For example, the Bureau of Economic Analysis and the Bureau of Labor Statistics, both federal government agencies, report different total employment levels for Illinois. This occurs when two data sources use different definitions (e.g. number of jobs or number of people who have jobs) and collect the data differently (e.g., analysis of business records or estimation from a survey). Below is a brief description of the data sources used in this article with an explanation of why a source was used over others. Entries are listed alphabetically by subject.

Business Starts and Employment
(U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages)
Several data sources provide information on industry employment net business starts, or businesses opening at a pace that outweighs business closures, indicated by growth in the total number of businesses over time. Public sources such as the Bureau of Labor Statistics and proprietary sources such as Regional Economic Models Inc. provide such information. BLS was chosen as the data source since the BLS collaborates with the Illinois Department of Employment Security and other state workforce development agencies.

Interestingly, Economic Modeling Specialists, Inc. recently found that Illinois was one of the top three states for net business starts per capita between 2009 and 2012, surpassing every state in the Midwest (http://www.economicmodeling.com/2014/01/29/the-states-leading-the-way-in-net-new-business-establishments-since-the-recession/).

Business Closures, Expansions, and Contractions
(U.S. Bureau of Labor Statistics, Business Dynamics Statistics)
Although other data sources such as the National Establishments Time Series provide measures of business closure, the BLS provides these numbers in a format consistent with the numbers reported by state workforce development agencies. Their Business Employment Dynamics dataset is created from an analysis of the Quarterly Census of Employment and Wages, so the data is comparable to other sources cited in this Profiles.

Business Migration
(National Establishments Time Series, youreconomy.org)
Standard federal data sources such as the BLS, U.S. Census Bureau, and Bureau of Economic Analysis do not directly track the number of businesses entering and leaving states. The National Establishments Time Series dataset is unique in its ability to track changes in the number of jobs and businesses in a state occurring as companies change addresses.

Value-Added
(Regional Economic Models, Inc.)
Value-added by industry is estimated by several proprietary data sources such as the Minnesota IMPLAN Group and Regional Economic Models, Inc (REMI). REMI was used for this study since the company's data has been widely used by state economic development agencies in Illinois and competing states, including Indiana, Iowa, New York, Texas, and others. Data from the Minnesota IMPLAN Group was not used in this study since it is compiled according to industry definitions not always comparable with the industries as defined by other sources cited in this *Policy Profiles*.

Endnotes

[1]Bill Testa, "Is Something Ailing the Illinois Economy?" *Midwest Economy,* Federal Reserve Bank of Chicago, May 8, 2014.

[2]See note #1.

[3]Value-added per employment is a commonly used measure of the contribution that an industry makes to the economy. It is calculated as sales minus cost of inputs purchased. It also can provide a measure of the productivity of an average employee, based partly on the amount of capital used.

[4]Market value of all goods and services sold in a specific time period.

[5]See note #1.

[6]See, for example, "Reshoring Manufacturing: Coming Home", The Economist, Jan. 19 2013, retrieved from: http://www.economist.com/news/special-report/21569570-growing-number-american-companies-are-moving-their-manufacturing-back-united

[7]More information about shift-share techniques and their meaning is available at: http://georgiastats.uga.edu/sshare1.html

[8]Calculated by CGS from Regional Economic Models, Inc. data.

[9]The BLS Business Employment Dynamics dataset excludes information on sole proprietorships so the totals do not compare directly with net changes in establishments and employment from other BLS datasets.

[10]Tax Foundation. *2014 State Business Climate Index.* http://taxfoundation.org/article/2014-state-business-tax-climate-index. Figure 6 in the text is taken from this source.

[11]National Association of State Budget Officers (2013). *State Expenditure Report.* Retrieved from: http://www.nasbo.org/publications-data/state-expenditure-report

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[14]Ryan Ori, "Digital Manufacturing Lab Signs Lease at Goose Island", *Crain's Chicago Business,* June 3, 2014. Retrieved from: http://www.chicagobusiness.com/article/20140603/NEWS08/140609934/digital-manufacturing-lab-signs-lease-at-goose-island

[15]Illinois Innovation Network. "Dynamism in Illinois: Tracking Technology Development at Universities and Research Institutions from Inception to Commercialization," Illinois Innovation Index, Jan. 12, 2014. Retrieved from: http://www.illinoisinnovation.com/innovation-index/download-innovation-index-2014-quarter-1-report/

[16]Alex Rosaen and Jason Horwitz. 2013. 2013 *State Business Tax Burden Rankings.* East Lansing, MI: Anderson Economic Group.

[17]Choose Chicago. List of foreign consulates in Chicago. Retrieved from: http://www.choosechicago.com/articles/view/FOREIGN-CONSULATES-/120/

[18]Pricewaterhouse Coopers, National Venture Capital Association, and Thomson-Reuters, MoneyTree Report, 2014.

[19]Robert D. Atkinson and Adams B. Nager. 2014. *The 2014 State New Economy Index.* Washington, DC: The Information Technology & Innovation Foundation, p. 7.

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Norman Walzer is a Senior Research Scholar in the Center for Governmental Studies at Northern Illinois University. An Emeritus Professor of Economics at Western Illinois University, he was the founder and, for eighteen years, the Director of the Illinois Institute for Rural Affairs at WIU. He is currently studying entrepreneurship programs and successful downtown development practices.

Andrew Blanke is a Research Associate in the Center for Governmental Studies at Northern Illinois University. He is a graduate of the Master of Public Administration degree program at NIU and has been researching state population projections and the impact of military installations on the Illinois economy.

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