

State of Illinois  
Pat Quinn, Governor

Department of Employment Security  
Maureen T. O'Donnell, Director



# Annual Report 2008



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# Illinois Annual Economic Analysis Report 2008

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# Executive Summary

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The turmoil endured by the national economy in 2008 produced significant impact on the Illinois economy. Commodity prices increased sharply and then slid back down, credit markets tightened as banks were stuck with piles of bad debt, and household wealth took a hit when prices of assets, such as homes and stocks, plunged. The national economic environment was such that the largest proportion of employed people since the Great Depression would lose their jobs.

Oil prices peaked in the middle of the year before reaching their 2008 low point in the last week of December.

The demand for gasoline remained about the same when oil prices first increased, but it began to decrease as consumers had to find ways to cut their budgets. Businesses with high petroleum costs were forced to pass higher prices on to their customers or make cuts elsewhere. Much of the increase in food staples was tied back to increases in fuel cost. However, oil and gas prices eventually declined as the global economy fell into recession leaving havoc in their wake.

The deflation of the housing bubble that occurred over the last few years was harder on the banking industry than when the dot-com bubble burst in the early 2000s. The financial sector was hurt more this time since the industry owned a much larger share of the assets that underwent a severe reduction in value. Stock interests were primarily held by personal investors whereas the banking interests held a significant proportion of the value of homes purchased through mortgages. Credit availability shrunk as the value of assets held by the banks fell.

Moreover, instability in commodity prices, falling home values, and problems associated with tight credit spread into other markets. Foreclosures rose; increasing the supply of homes and continuing downward pressure on housing prices. Businesses had difficulty obtaining financing and stock market prices fell as the general outlook was dismal. The decline in household wealth reduced consumer spending and expectations for the economy. Employment levels fell in many industries including bellwethers Construction and Manufacturing. Yet career opportunities still exist in the Manufacturing sector, although higher skills requiring additional education and training are necessary for current positions. The increased productivity of the higher-skilled workers requires fewer of them to produce a given output and so manufacturing employment as a whole continues to trend downward.

The Illinois unemployment rate increased in 2008 as job losses accumulated, reaching 7.2% in December. It took longer for the unemployed to find new work as the year progressed. The average duration of unemployment in Illinois was 20.4



weeks (up 1.1 weeks from 2007). Nearly one in four (23.1%) Illinois unemployed were out of work for more than 26 weeks in 2008. Total extended mass layoffs events and worker separations rose sharply in 2008 as business conditions deteriorated throughout the economy.

The number of workers separated in extended mass layoffs increased nearly 38,000 from 2007 to 119,692 - the highest number of separations since 2003. The effects of the decline in the real estate industry were most clearly seen in Construction, which saw its largest number of job cutbacks (22,824) since 2003, and Financial Activities, which reported its largest number of annual separations (4,071) on record. Initial claims for regular Unemployment Insurance (UI) benefits increased by 176,259 and reached 872,368 in 2008, the highest level since 2002.

Long-term solutions to the world's economic problems are likely to coincide with long-term solutions to the world's energy problems. A global committee co-chaired by new U.S. Secretary of Energy Steven Chu postulated that any solution to the world's energy problems must be a global solution. The problem cannot be solved by a single country, but countries must work together so that each part of the globe does its part to conserve and sustain energy resources.

The United States government has reacted to the severe downturn by setting in motion a plan to rebuild the economy based on fundamental changes to its energy industry. The public sector would invest in the modernization of infrastructure, institute government regulation, and nurture evolving industries in support of the private sector with the intent of creating good-paying jobs that cannot be outsourced. This clean energy strategy would utilize alternative energy technologies and incorporate energy efficient methods. An investment of this type would create "green" jobs for Illinois and other states, while other employment would be generated through increased economic activity.

Illinois is fortunate in that it has the resources that place it in position to be a clean energy industry leader. Illinois generates lots of biomass needed for biofuel production and it has extensive reserves of coal that could generate electricity utilizing clean-coal methods. No other state ranks above Illinois in both crop production and coal production. An investment in these technologies may create more future economic opportunities by allowing for the exportation of successful technologies to other parts of the globe.

A portion of this economic plan is focused on replacing outdated infrastructure. Construction of a smart grid would replace an electrical grid built for another generation. Investment in a high-speed rail system would increase options for travelers in high-volume traffic corridors. The state would benefit immensely from construction of both a smart grid and a high-speed rail system (one hub of the network located in Chicago). The location of the state, and Chicago in particular, makes the area a natural interchange point between east and west coast railroads and north/south shipments to the port of New Orleans. Emphasis on energy efficiency only reinforces the vital nature of this interchange function.

Illinois' economic growth has trailed that of the nation for the last few decades, during both prosperous and stagnant times. However, the combination of Illinois' natural resources, central location, and pending public policy may help reinvigorate the state's economy. The focus on a clean energy strategy could expand industrial activity in the state. A stable, plentiful supply of energy and other critical resources will be required to fuel future economic growth.

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# The Larger Economy

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The science of economics makes it easier to judge past history than to recognize what is happening at the current point in time. Most economic data is not available in real-time and policy decisions often require several months before a meaningful analysis can be made of its impact. Enough time has now passed for most economists to say with some confidence that the current economic situation will be more severe than the 1981-82 recession (previously the worst since the Great Depression) and yet not nearly as painful as the Great Depression. Former Federal Reserve Chairman Paul Volcker, an economic adviser to President Obama, referred to the current downturn as the “Great Recession”.

The global and national economy was in bad shape at the end of the 2008 calendar year. Prices of commodities reached historical highs at mid year, but fell back down to what were previously considered reasonable values by year end. The banking industry was crippled following the deflation of the largest housing bubble in U.S. history. The plunge in home prices left many people owing more on their mortgage principle than their home was worth. Stock prices slid rapidly, forcing many to reconsider their financial futures. Large numbers of people lost their jobs with little hope to find another one soon, let alone one that would pay similar wages.



*Housing prices peaked in 2006 and have steadily fallen since.*

Americans are now looking toward their government to provide solutions to the many economic problems that are faced today. The federal government has already taken emergency action to prevent a collapse of the financial sector and to provide temporary support to critical sectors such as the domestic auto industry. Now it faces what could be a critical point in the country’s history. Will the United States continue to be a global economic power, or will it lose its dominance?

Great opportunities often arise when sizable hurdles are faced. The United States now has the chance to reestablish the foundation of its economy. A better regulated banking system should improve alignment between risk and reward. Investment in infrastructure by the public sector could allow for the creation of new industries and an abundance of much-needed good-paying jobs. New public policy could augment the improvements to infrastructure.

## Oil and Other Commodities

The weekly U.S. spot price for a barrel of oil was \$85.52 in the last week of 2007, peaked at \$134.44 in July of 2008, but dropped to \$31.84 by the last week of 2008. The price continued on a roller-coaster ride (shown in Exhibit 1) and rose close to \$20 per barrel by the end of the 1st quarter of 2009. Historically U.S. oil demands played a major role in determining its price. In the past few years, aggregate demand for oil was spurred by developing economies of China and India. The declining value of the American dollar during this time impacted the oil market because prices are valued in American dollars. To a lesser extent, oil market speculation also played a role in higher oil prices in 2008. Prices eventually declined as the global economy fell into recession and the dollar strengthened when investors decided U.S. securities were a safer bet than other investments.

Consumer demand for gasoline at first appeared to be relatively

inelastic (customers buy same, or similar, amounts regardless of price) as the price rose, but at some point consumers started to drive fewer miles and to give consideration to other vehicles that got better mileage. Businesses that relied on petroleum products, directly or indirectly, also had to find ways to reduce these costs or pass on the higher prices to their customers. In most cases it was some combination of the two. As consumers and businesses changed their habits and the economic recession cut down on overall business, gasoline demand was reduced enough for prices to fall dramatically in 2008.

Many other commodities are also priced in dollars and they exhibited similar patterns to oil. The cost of food rose as grains, such as corn, were also being used for the production of biofuels and transportation fuel prices led to larger growing costs. Improving diets of people with rising incomes around the world also led to increased demand for food products. Prices of metals rose as China and

India experienced greater economic development. The global recession counteracted these increases in demand forcing prices back down.

## Banking, Credit and Housing

A key component of the global recession was caused by serious bank problems related to the amount of bad debt held by major banks. Much of this bad debt originated as sub-prime mortgages, i.e. mortgages that were given to customers who did not meet regular standards for home loans. These loans were driven in part by an expansionary monetary policy that fueled growth in the economy. Initial interest rates on those mortgage loans generated lower monthly payments in the initial years of the loan relative to what was to be paid in the future years of the loan. Many of the people receiving these loans did not have the income to pay the higher monthly payments. The lenders who approved these sub-prime loans often packaged them and sold them off to other investors, no longer holding a financial interest in these loans. This made money for the original lenders but caused a problem for the investors who later bought the packaged loans.

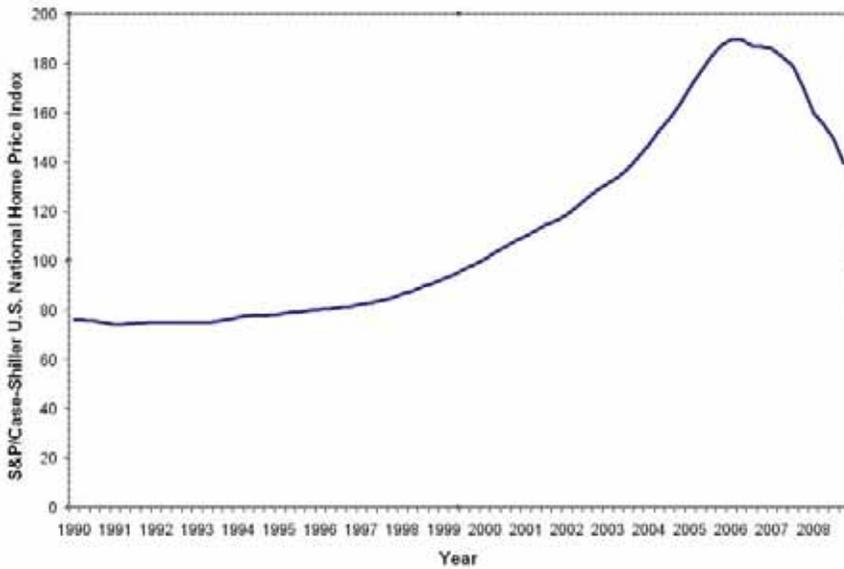
The housing market collapsed when the price bubble burst. The value of homes started to decline as home sales fell. Residential developers had built a large supply of homes because loans were relatively cheap and people had been willing and able to pursue loans to buy a house. Housing prices peaked in 2006 and have steadily fallen since (shown in Exhibit 2, on the next page). Builders were stuck with an excess supply of homes they could not sell.

**Exhibit 1: Price of Oil (January 1999 - March 2009)**



Source: Economic Information Administration

**Exhibit 2: U.S. Housing Prices (1990 Q1-2008 Q4, 2000=100)**



Source: Case-Shiller U.S. National Home Price Index, Standard & Poors

The housing bubble had a larger negative impact on the banking industry than the technology stock market bubble of the 1990s.<sup>1</sup> Personal investors owned a large portion of the assets that lost value in the bubble of the 1990s and there was not as much of a spillover effect on the health of the financial sector. Many people who purchased homes during the run-up on housing prices actually owned only a small percentage of the property with the mortgage holder owning the rest. As the value of the homes went through a steep decline the majority of the losses were incurred by the financial institutions holding the loans.

The poor health of the banking industry resulted in tight credit markets for both business and consumers. The pendulum had swung to the opposite extreme. During the housing boom, loans were easy to get; during the housing bust credit availability disappeared.

Only potential homeowners with impeccable credit were able to get mortgage loans.

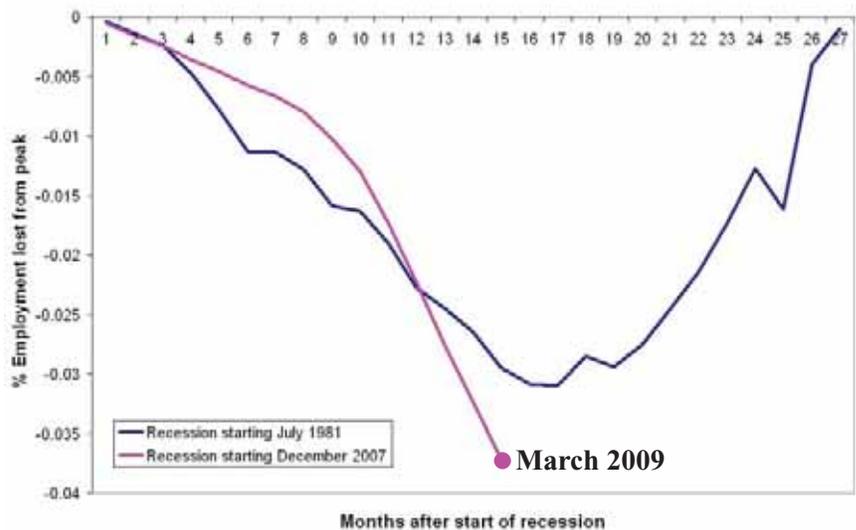
Foreclosures skyrocketed as a result of homeowners not being able to maintain their mortgage payments. The number of foreclosures in 2008 rose 81% over foreclosures in 2007, and 225% over foreclosures

in 2006.<sup>2</sup> Inevitably the supply of homes available on the market surged and downward pressure on housing prices continued.

**Employment**

The developments in the financial and commodity markets have dealt a strong blow to employment for various industry sectors including Construction, Manufacturing, Transportation & Warehousing, Wholesale Trade, Retail Trade, Finance & Insurance, and Real Estate & Leasing. As a result, many people lost their jobs as industries consolidated and cut their costs. As a percentage of peak employment, job losses in the recession that started in December of 2007 have already exceeded the losses of the 1981-82 recession (shown in Exhibit 3), and the recession is not over. Not surprisingly, unemployment claims have also been reaching new highs since the beginning of the current recession [see Chapter 3, The Illinois Labor Force and Related 2008 Program Statistics].

**Exhibit 3: Comparison of Percent Employment Losses for 1981 & 2007 Recessions**



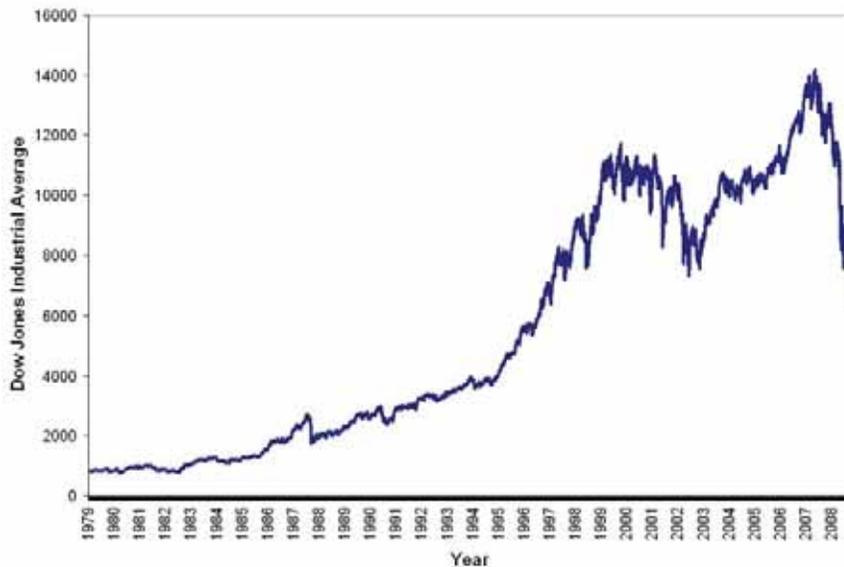
Source: Current Employment Statistics, Bureau of Labor Statistics, Illinois Department of Employment Security

## Household Economics

One consequence of these economic problems is the loss of household wealth as the value of assets has declined. The drop in the Dow Jones Industrial Average (shown in Exhibit 4) reflects the sour nature of this economic activity. “The wealth of American families plunged nearly 18% in 2008, erasing years of sharp gains on housing and stocks and

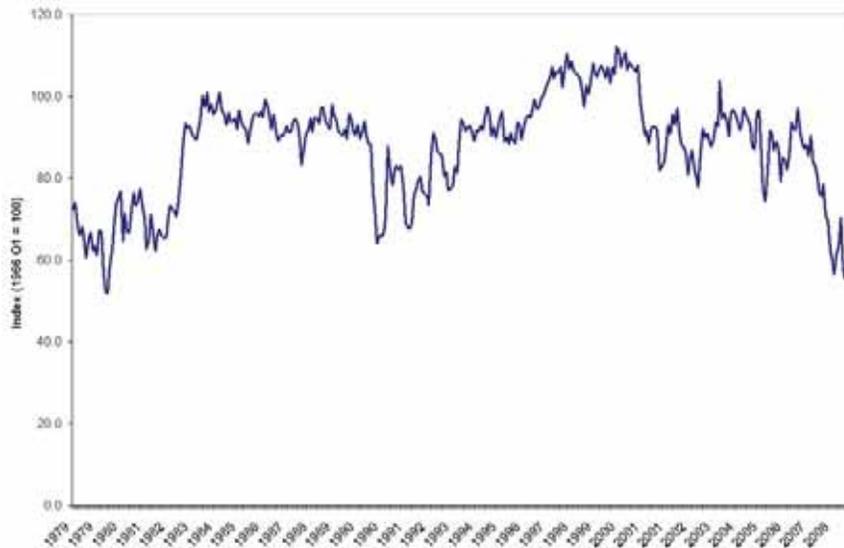
marking the biggest loss since the Federal Reserve began keeping track after World War II”.<sup>3</sup> The loss of household wealth and loss of jobs in the economy has reduced consumers’ confidence in the economy, as represented in Exhibit 5 by the University of Michigan’s Consumer Sentiment Index. The measure hit its lowest point in November 2008 since May 1980.

**Exhibit 4: Dow Jones Industrial Average (January 1979 – March 2009)**



Source: Yahoo Finance

**Exhibit 5: University of Michigan Sentiment Index (January 1979 – March 2009)**



Source: University of Michigan, Federal Reserve Bank of St. Louis

Japan had a model economy in the late 1980s before proceeding through a price-level decline in its real estate industry resembling what has occurred recently in the United States.

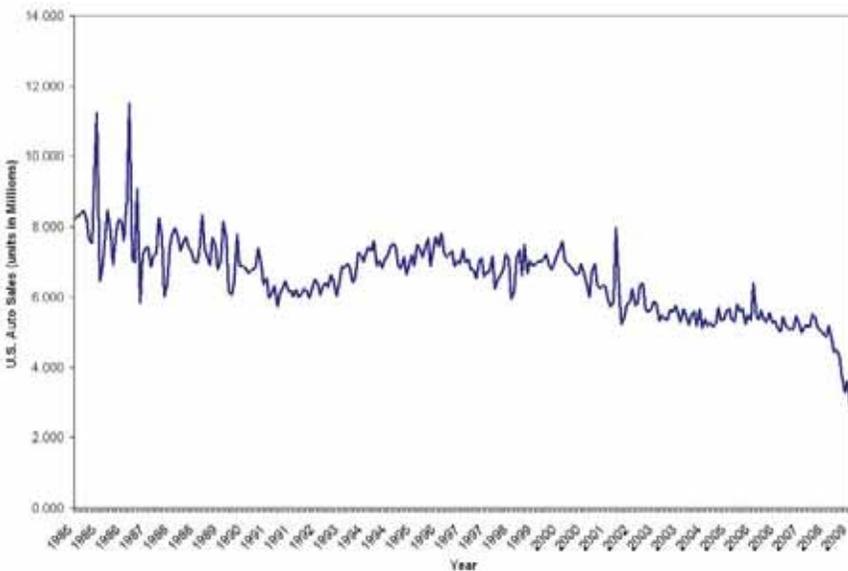
That country is still struggling to return back to its previous level of prosperity. The development of the situation in Japan was analogous to what happened in the United States as the stability of the banking system was taken for granted in both cases. Safeguards for the Japanese system were not nearly enough to prevent a breakdown. The Japanese bubble was centered on the unsustainable increase in the value of commercial real estate. As land values increased more loans were written using previously purchased real estate as collateral. Once the bubble deflated in the early 1990s, real estate prices kept tumbling down as the loans supported by real estate acting as collateral were defaulted upon. The Japanese Nikkei 225 stock index in March 2009 has about one-fifth the value it had at its peak in 1989 and real estate values are currently 30% below their 1989 peak.<sup>4,5</sup>

Consumer spending has declined as a result of declining household wealth, limited credit availability, and consumer expectations for the economy. The appreciating value of assets as seen in the stock market rise of the 1990s - early 2000s and then the housing market rise in the earlier 2000s provided the stimulus for economic growth. Many people refinanced their home loans at lower interest rates in order to decrease their monthly payments. Sometimes

Even among consumers who did not face imminent foreclosures, their “ATM machines” – cash out refinancing of home equity – forced them to reassess spending of large ticket items. Exhibit 6 shows the retail sales of domestic autos, defined as those assembled in the U.S., Canada and Mexico. The data show a slow trend downward from the mid-1980s until early 2008. Starting in May of 2008, auto sales dropped significantly. This

The stimulus plan (\$787 billion) offered by the new federal government administration is one that would move to transform the country’s economy to a new age. It is one where the public sector invests in the creation of infrastructure, institutes government regulation, and nurtures evolving industries in support of the private sector with the intent of creating good-paying jobs that cannot be outsourced.

**Exhibit 6: U.S. Domestic Auto Retail Sales (January 1985 – February 2009) [Millions, Seasonally Adjusted at Annual Rates]**



Source: Bureau of Economic Analysis

they used equity from their home to finance other purchases such as automobiles or vacations. Others traded up to bigger homes using equity from one home to purchase an even more expensive home. When the value of these homes dropped, many people owed more than the home was worth. About 20% of all properties with a mortgage were in a negative equity position or “underwater” at the end of 2008.<sup>6</sup>

sharp decline was due to a myriad of factors, including expectations about personal employment and the overall economy, disposable income, and credit availability.

### Government Policies

The federal government has increased expenditures (by increasing the level of debt) in order to create jobs and to try and prevent the current recession from turning into a depression.

A large portion of this plan is focused on technological improvements that could replace crumbling infrastructure sorely in need of replacement. Municipal works were built up in the 1930s as part of FDR’s program to put people back to work during the Great Depression. Many roads and bridges were constructed after Eisenhower’s plan for the Interstate system was enacted in the 1950s. Both of these programs provided the foundation for economic growth. A plan of this nature would help stimulate the economy and create new industries. The plan that is proposed would establish new infrastructure by taking advantage of new technologies that would also help create “green” jobs.

Construction of a smart grid would replace an electrical grid that what was designed and built for another age is one example. The smart grid would be built to the specifications demanded by our current economy, a.k.a. the Digital Economy, which is much more dependent on electronic gadgets and electricity in general. This modern grid would distribute electricity more efficiently than the old grid (less energy wasted) and

be much more flexible. It would allow customers to monitor their own usage and to make adjustments to their own consumption of power. The utility would send out a signal notifying customers of peak load times while utilizing higher prices as incentives to reduce usage during these periods, and this would ultimately reduce costs for both parties.

The smart grid will be capable of integrating alternative power sources, such as surplus power produced by solar panels and wind towers, which could be shared with other power users. This could reduce the total power capacity required to be built by utilities. The smart grid would be more reliable with fewer power outages and could very well eliminate problems such as the one that occurred in the northeastern United States and portions of

Canada in 2003.<sup>7</sup> That one shut down 21 power plants in 3 minutes causing nearly 1 million customers to lose power. The reliability of the grid would save businesses money and help to prevent emergency situations.

Investment in a high-speed (in excess of 200 miles per hour) rail system would increase options for travelers in high-volume traffic corridors.<sup>8,9</sup> It would relieve stress on over-burdened highways and airports and reduce the need for building more of each. It may also be a cheaper alternative than those modes of transportation and likely more friendly to the environment. One portion of the proposed system would feature Chicago as a hub of a network that connected to other Midwestern cities including St. Louis, Milwaukee, Madison, and Detroit.

Both the Coal Research Center ([www.crc.siu.edu](http://www.crc.siu.edu)) at Southern Illinois University at Carbondale (SIU-C) and the Illinois Clean Coal Institute ([www./icci.org/](http://www./icci.org/)), part of the Department of Commerce and Economic Opportunity's Office of Coal Development, promote the development and application of new and improved technologies that contribute to the economic and environmentally sound use of Illinois coal.

## End Notes

<sup>1</sup> "From bubble to depression?". Steven Gjerstad and Vernon L. Smith. Wall Street Journal. April 6, 2009.

<sup>2</sup> "Foreclosure activity increases 81% in 2008". RealtyTrac press release. January 15, 2009. [www.realtytrac.com/Content/Management/pressrelease.aspx?ChannelID=9&ItemID=5681](http://www.realtytrac.com/Content/Management/pressrelease.aspx?ChannelID=9&ItemID=5681),

<sup>3</sup> "Americans see 18% of wealth vanish". S. Mitra Kalita. Wall Street Journal. March 13, 2009.

<sup>4</sup> "U.S. economic crisis replay of Japan's lost decade depression". Keith Fitz-Gerald. March 3, 2009. [www.marketoracle.co.uk/Article9215.html](http://www.marketoracle.co.uk/Article9215.html).

<sup>5</sup> Nikkei 225 Data. [www.nni.nikkei.co.jp/e/fr/tnks/marketlive.aspx](http://www.nni.nikkei.co.jp/e/fr/tnks/marketlive.aspx).

<sup>6</sup> "New data shows one-fifth of all mortgages underwater". Lori Guyton. First American CoreLogic. March 4, 2009. [www.facorelogic.com](http://www.facorelogic.com).

<sup>7</sup> "Major power outage hits New York, other large cities". CNN.com. August 14, 2003. [www.cnn.com/2003/US/08/14/power.outage/](http://www.cnn.com/2003/US/08/14/power.outage/)

<sup>8</sup> "Fast trains on fast track". Jon Hilkevitch. Chicago Tribune. April 17, 2009.

<sup>9</sup> "U.S. commits \$13 billion to high-speed rail". Wall Street Journal. April 17, 2009.

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# A Comparison of Employment Changes in Recent Recessionary Periods for the United States and Illinois

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The Illinois economy struggled in 2008 as it reflected the problems of the national economy. Commodity prices were up most of the year forcing individuals to reprioritize their purchases of consumer goods. Farmers earned more on grain sales but it also cost more to operate the farm. Housing prices fell and credit markets tightened as liquidity dried up in the banking industry. Employment declined in most industry sectors and unemployment rates jumped.

Illinois' economic growth has trailed that of the nation for the last few decades, during both prosperous and stagnant times. However Illinois' natural resources and pending public policy may combine to help reinvigorate the state's economy. The focus on a clean energy strategy could expand industry activity in the state. A stable, plentiful supply of energy will be required to fuel future economic growth. Other resources such as food and water are abundant in Illinois relative to other states. A commitment to rebuilding public infrastructure by the federal government could provide the foundation needed to lift the Illinois economy.

A review of employment data in recent periods of economic



recession may provide some understanding of what can be expected of industry employment in the future.

## QCEW Employment and Wages

Exhibit 1, on the next page, shows a comparison of the most current (2008 Q3) QCEW program data with data from 7 years prior (2001 Q3) for both the United States and Illinois allowing for a comparison of trends in the economy.

Both the nation and Illinois have been steadily losing Manufacturing employment share over the time period with significant employment losses of 17.5% at the national level and 18.3% for Illinois. The losses are due to a few factors including increased productivity in the Manufacturing sector and the outsourcing of some of these jobs to foreign countries. However the nation as a whole has had positive employment gains in Natural Resources & Mining and Construction while

## Exhibit 1: QCEW Employment for 2001 and 2008 for the United States and Illinois

### U.S. QCEW 2001 - 2008 (Q3)

	2001		2008		% Change 2001-2008	
	Number Employed	Avg. Qtrly. Wages*	Number Employed	Avg. Qtrly. Wages	Percent Employed	Avg. Qtrly. Wages*
<b>Total</b>	<b>129,987,584</b>	<b>\$10,631</b>	<b>135,173,818</b>	<b>\$10,876</b>	<b>4.0%</b>	<b>2.3%</b>
<b>Private Sector (NAICS)</b>	<b>109,537,118</b>	<b>\$10,668</b>	<b>113,499,136</b>	<b>\$10,874</b>	<b>3.6%</b>	<b>1.9%</b>
<b>GOODS-PRODUCING</b>	<b>25,010,603</b>	<b>\$12,213</b>	<b>22,604,031</b>	<b>\$12,661</b>	<b>-9.6%</b>	<b>3.7%</b>
Natural Resources and Mining	1,830,497	\$9,459	2,003,607	\$11,467	9.5%	21.2%
Construction	7,001,518	\$11,635	7,255,386	\$12,123	3.6%	4.2%
Manufacturing	16,178,588	\$12,775	13,345,038	\$13,133	-17.5%	2.8%
<b>SERVICE-PROVIDING</b>	<b>84,526,515</b>	<b>\$10,211</b>	<b>90,895,105</b>	<b>\$10,430</b>	<b>7.5%</b>	<b>2.1%</b>
Trade, Transportation, and Utilities	25,500,207	\$9,544	25,953,063	\$9,375	1.8%	-1.8%
Information	3,518,089	\$16,889	2,973,770	\$17,452	-15.5%	3.3%
Financial Activities	7,699,147	\$14,889	7,919,874	\$15,832	2.9%	6.3%
Professional and Business Services	16,289,073	\$12,693	17,752,206	\$13,631	9.0%	7.4%
Educational and Health Services	14,943,588	\$9,972	17,996,363	\$10,371	20.4%	4.0%
Leisure and Hospitality	12,102,707	\$4,744	13,568,057	\$4,743	12.1%	0.0%
Other Services	4,222,550	\$7,099	4,482,869	\$7,137	6.2%	0.5%
Unclassified	251,154	\$10,037	248,903	\$9,949	-0.9%	-0.9%
<b>State &amp; Local Government</b>	<b>17,688,693</b>	<b>\$9,749</b>	<b>18,902,659</b>	<b>\$10,176</b>	<b>6.9%</b>	<b>4.4%</b>
<b>Federal Government</b>	<b>2,761,773</b>	<b>\$14,797</b>	<b>2,772,023</b>	<b>\$15,712</b>	<b>0.4%</b>	<b>6.2%</b>

### Illinois QCEW 2001 - 2008 (Q3)

	2001		2008		% Change 2001-2008	
	Percent Employed	Avg. Qtrly. Wages*	Percent Employed	Avg. Qtrly. Wages	Percent Employed	Avg. Qtrly. Wages*
<b>Total</b>	<b>5,898,667</b>	<b>\$11,471</b>	<b>5,873,243</b>	<b>\$11,549</b>	<b>-0.4%</b>	<b>0.7%</b>
<b>Private Sector (NAICS)</b>	<b>5,087,419</b>	<b>\$11,524</b>	<b>5,048,516</b>	<b>\$11,630</b>	<b>-0.8%</b>	<b>0.9%</b>
<b>GOODS-PRODUCING</b>	<b>1,124,197</b>	<b>\$13,256</b>	<b>959,611</b>	<b>\$13,767</b>	<b>-14.6%</b>	<b>3.9%</b>
Natural Resources and Mining	28,948	\$9,908	28,556	\$9,944	-1.4%	0.4%
Construction	291,686	\$14,343	274,751	\$15,026	-5.8%	4.8%
Manufacturing	803,563	\$12,982	656,304	\$13,406	-18.3%	3.3%
<b>SERVICE-PROVIDING</b>	<b>3,963,222</b>	<b>\$11,032</b>	<b>4,088,905</b>	<b>\$11,129</b>	<b>3.2%</b>	<b>0.9%</b>
Trade, Transportation, and Utilities	1,202,302	\$10,487	1,179,329	\$10,091	-1.9%	-3.8%
Information	152,368	\$15,648	113,797	\$16,594	-25.3%	6.0%
Financial Activities	397,478	\$16,052	382,748	\$17,096	-3.7%	6.5%
Professional and Business Services	809,434	\$13,953	866,729	\$14,414	7.1%	3.3%
Educational and Health Services	691,713	\$10,096	796,164	\$10,482	15.1%	3.8%
Leisure and Hospitality	503,814	\$4,744	540,523	\$4,832	7.3%	1.9%
Other Services	199,874	\$8,086	202,031	\$8,163	1.1%	1.0%
Unclassified	6,239	\$10,620	7,584	\$9,551	21.6%	-10.1%
<b>State &amp; Local Government</b>	<b>717,866</b>	<b>\$10,673</b>	<b>737,820</b>	<b>\$10,545</b>	<b>2.8%</b>	<b>-1.2%</b>
<b>Federal Government</b>	<b>93,382</b>	<b>\$14,724</b>	<b>86,907</b>	<b>\$15,367</b>	<b>-6.9%</b>	<b>4.4%</b>

\* 2001-7 Q3 Wage data have been multiplied by the ratio of (September 2008 CPI / September 200X (X=1-7) CPI) for better comparison to 2008 Q3 Wage data

Source: Bureau of Labor Statistics and Illinois Department of Employment Security

Illinois experienced small declines in both. The overall result is that employment for the Goods-Producing sector of the economy has declined more in Illinois than for the nation (-14.6% to -9.6%).

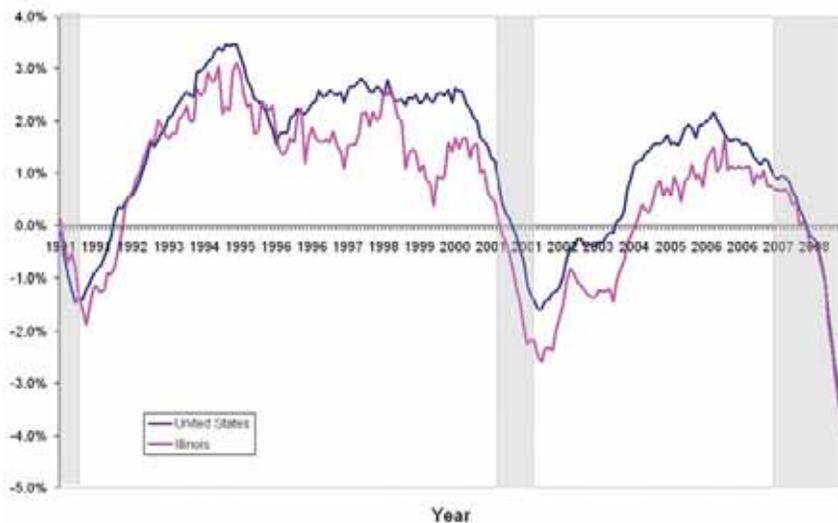
The Service-Providing sector has shown increases in employment over this time period for both the U.S. and Illinois although the proportional gains are higher at the national level. In fact the percentage changes of employment in each of the industry categories (except Unclassified) that make up this sector are better at the national level than for Illinois over this most recent 7-year period. This confirms that Illinois is below the national average with respect to employment growth in its economy. It is not unexpected since the primary

economic growth in the country has taken place in the southern, southwestern and western portions of the United States for several years.

## CES Employment

Exhibit 2 charts over-the-year percentage employment changes for national and Illinois CES data from January 1991 until March 2009. Recessionary periods are shaded in gray on the chart during the span of available data. Recessions are defined by the National Bureau of Economic Research (NBER) as significant declines in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

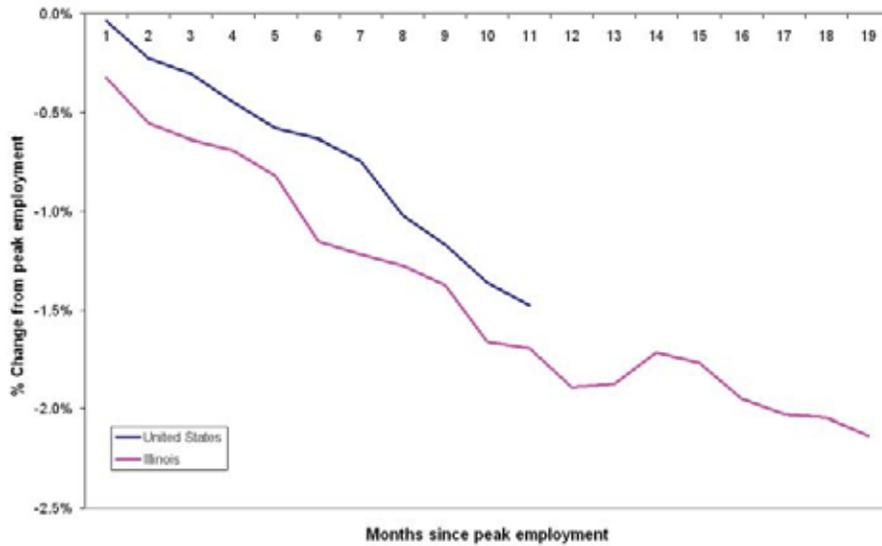
**Exhibit 2: Over-the-Year Percent Change in Employment for the U.S. and Illinois (1991 – March 2009)**



Source: Bureau of Labor Statistics, Illinois Department of Employment Security, National Bureau of Economic Research

The Quarterly Census of Employment and Wages (QCEW) program is a compilation of employment-related data from quarterly Unemployment Insurance (UI) tax records submitted by employers that are covered by the UI program. Program information and national data can be found on the BLS Web site at <http://stats.bls.gov/cew/home.htm> while Illinois QCEW data reports can be found at <http://lmi.ides.state.il.us/covered.htm>.

**Exhibit 3: Percent Employment Change Since Peak Employment for the U.S. and Illinois (1990-92 Economic Period)**



Source: Bureau of Labor Statistics and Illinois Department of Employment Security

Careful investigation of this data makes clear a few points. Illinois' growth in employment has been generally below, sometimes almost equal, but not above the employment growth of the nation over the last 20 year period. Illinois also is below the 0% over-the-year employment growth line longer than the nation around periods of recession. In fact Illinois has lost employment for more months than the United States as a whole for time periods around both the July 1990-March 1991, and March 2001-November 2001 recessions. This implies that the state economy has been more vulnerable to job losses than the national economy. Most likely, this trend will continue in the current recession.

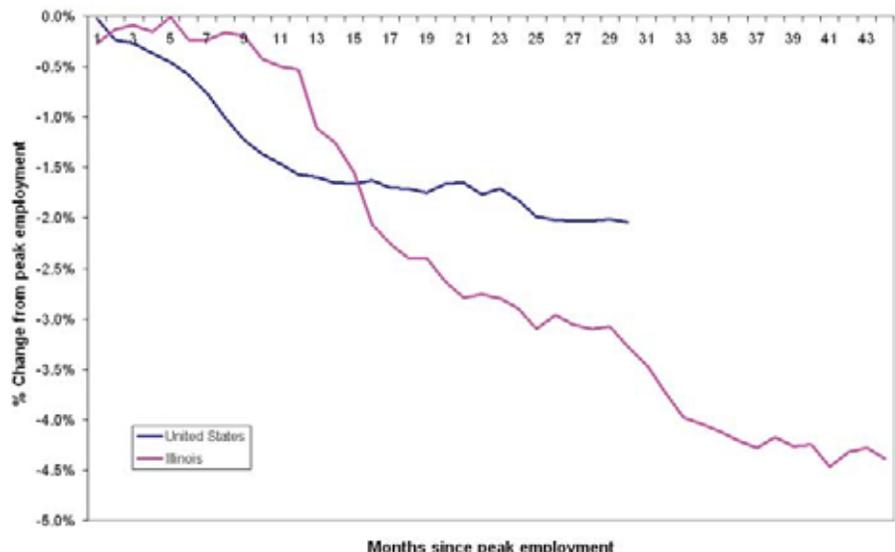
Exhibit 3 shows the percent change in employment since peak employment for the 1990-92 period that surrounds the 1990-91 recession. National employment hit its peak in June 1990 during the 1990-91 recession and bottomed

out 11 months later in May 1991. Illinois hit its peak in employment in August 1990 and bottomed out in March 1992 (19 months later). The chart shows that Illinois lost 2.1% of its employment from the peak while the nation lost 1.5% of its peak employment.

Exhibit 4 shows similar data for the 2000-2004 period (surrounds the 2001 recession). National employment hit its peak in February 2001 and did not hit its bottom until 30 months later in August 2003. Illinois employment hit its peak in June 2000 and fell for 44 months until rebounding in February 2004. The chart shows that Illinois lost 4.4% of its employment from the peak while the U.S. lost 2.0% of its peak employment.

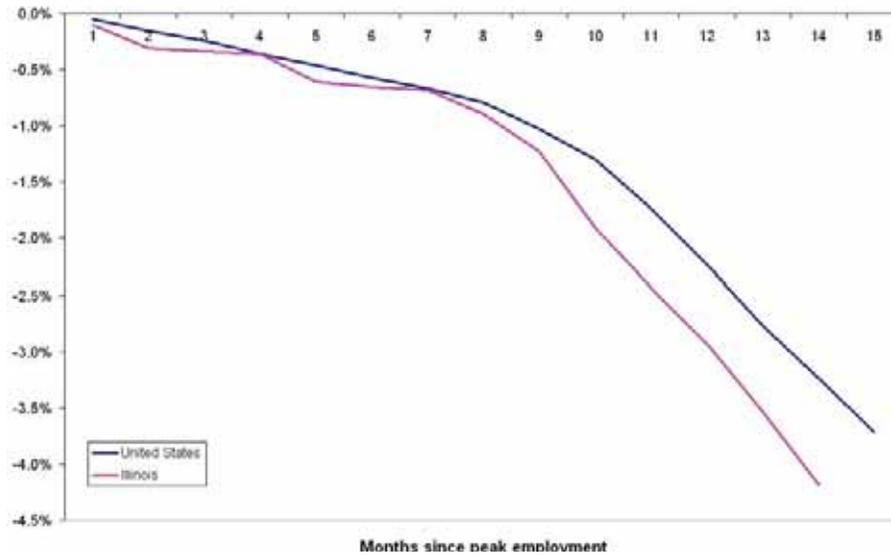
It is still uncertain whether the current recession will follow the same trend. Exhibit 5, on the next page, provides a visual of what has happened so far in the recession that started in December 2007. Illinois hit its peak employment one month after the country and has so far (14 months for Illinois and 15 months for the U.S.) lost a slightly higher percentage (4.2% to 3.7%) of its peak employment than the nation. The main question seems to be whether Illinois will continue to

**Exhibit 4: Percent Employment Change Since Peak Employment for the U.S. and Illinois (2000-04 Economic Period)**



Source: Bureau of Labor Statistics and Illinois Department of Employment Security

**Exhibit 5: Percent Employment Change Since Peak Employment for the U.S. and Illinois (2007-09 Economic Period)**



Source: Bureau of Labor Statistics and Illinois Department of Employment Security

Information regarding the Current Employment Statistics (CES) program is available on the national page at <http://stats.bls.gov/ces/home.htm> and data for Illinois and its sub-state areas is accessible at <http://lmi.ides.state.il.us/cesfiles/cesmenu.htm>.

shed employment after the nation begins its economic recovery. A closer inspection of the data may yield some insight.

Exhibit 6, on the next page, shows CES data for the United States and Illinois detailed at the major industry level for these same three time periods. The first column under each geographical area is the difference between employment levels in the peak month and employment for the last month before monthly employment growth turned positive (the current month's employment data is used for the current recession) for each industry sector. The second column shows the percentage change in employment over the period calculated for each sector. The third column shows the proportion of the employment loss for each industry sector relative to the total employment loss over the time period for each geographical area.

Manufacturing was responsible for 63.9% of the job losses in

Illinois in the employment decline around the 1990-91 recession compared to 43.6% of the total employment losses the national level. Not all of the employment in the Manufacturing sector was regained nationally and for Illinois after this period indicating some combination of structural adjustment (permanent job losses) and cyclical adjustment (temporary job losses) had taken place. The amount of total employment Illinois lost around the 1990-91 economic recession was 7.0% of the total jobs lost by the nation.

Illinois' Manufacturing industry was responsible for 66.3% of the total employment losses in the state in the time span after peak employment that came around the 2001 recession. The sector was accountable for 97.9% of the total employment losses for the U.S. during the period. Manufacturing employment did not rebound at all, but instead the decline in employment just slowed down for

both the state and the nation. This would imply a dominant structural adjustment was taking place in the industry. The amount of total employment Illinois lost around the 2001 economic recession was 9.8% of the total jobs lost by the nation.

Manufacturing has accounted for only 27.6% of the employment losses for Illinois while the industry has incurred 28.6% of the employment loss for the nation in the time period since total employment started falling around the current recession. It is too soon to tell if Manufacturing employment will rebound and by how much. The amount of total employment Illinois has lost is 4.9% of the number of jobs lost at the national level during the current economic downturn. One reason that the percentage of Manufacturing job losses is down in this recession may be because Illinois and the nation as a whole have shed manufacturing jobs for a long time and perhaps the most vulnerable of those jobs

**Exhibit 6: Employment Losses During Recent Recessionary Periods for the U.S. and Illinois**

United States				Illinois		
July 1990 - March 1991 Recession	11 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss	19 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss
Total Nonfarm Employment	-1,621,000	-1.5%	100.0%	-113,500	-2.1%	100.0%
Mining	-22,000	-2.9%	1.4%	NA	NA	NA
Construction	-503,000	-9.5%	31.0%	-20,500	-9.2%	18.1%
Manufacturing	-706,000	-4.0%	43.6%	-72,500	-7.9%	63.9%
Trade, Transportation, & Utilities	-431,000	-1.9%	26.6%	-36,900	-3.2%	32.5%
Information	-9,000	-0.3%	0.6%	-1,200	-0.9%	1.1%
Financial Activities	-57,000	-0.9%	3.5%	-1,000	-0.3%	0.9%
Professional and Business Services	-240,000	-2.2%	14.8%	-3,500	-0.6%	3.1%
Education and Health Services	469,000	4.3%	-28.9%	34,500	6.4%	-30.4%
Leisure and Hospitality	-47,000	-0.5%	2.9%	-5,200	-1.3%	4.6%
Other Services	-17,000	-0.4%	1.0%	-1,900	-0.9%	1.7%
Government	-58,000	-0.3%	3.6%	-2,900	-0.4%	2.6%

United States				Illinois		
March 2001 - November 2001 Recession	30 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss	44 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss
Total Nonfarm Employment	-2,708,000	-2.0%	100%	-265,800	-4.4%	100.0%
Mining	-35,000	-5.8%	1.3%	-600	-6.2%	0.2%
Construction	-81,000	-1.2%	3.0%	-3,100	-1.1%	1.2%
Manufacturing	-2,651,000	-15.6%	97.9%	-176,200	-20.2%	66.3%
Trade, Transportation, & Utilities	-1,019,000	-3.9%	37.6%	-68,700	-5.5%	25.8%
Information	-551,000	-14.8%	20.3%	-24,400	-16.6%	9.2%
Financial Activities	229,000	2.9%	-8.5%	-3,500	-0.9%	1.3%
Professional and Business Services	-809,000	-4.8%	29.9%	-61,000	-7.2%	22.9%
Education and Health Services	1,179,000	7.6%	-43.5%	39,900	5.8%	-15.0%
Leisure and Hospitality	180,000	1.5%	-6.6%	17,100	3.5%	-6.4%
Other Services	200,000	3.8%	-7.4%	15,600	6.4%	-5.9%
Government	650,000	3.1%	-24.0%	-900	-0.1%	0.3%

United States				Illinois		
December 2007 - Current (through March 2009) Recession	15 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss	14 month Emp. Change	% Change from Peak Ind. Emp.	Proportion of Total Emp. Loss
Total Nonfarm Employment	-5,133,000	-3.7%	100.0%	-251,000	-4.2%	100.0%
Mining	11,000	1.5%	-0.2%	300	3.1%	-0.1%
Construction	-1,050,000	-14.0%	20.5%	-32,900	-12.4%	13.1%
Manufacturing	-1,467,000	-10.6%	28.6%	-69,400	-10.3%	27.6%
Trade, Transportation, & Utilities	-1,223,000	-4.6%	23.8%	-47,800	-3.9%	19.0%
Information	-118,000	-3.9%	2.3%	-4,700	-4.1%	1.9%
Financial Activities	-376,000	-4.6%	7.3%	-16,500	-4.2%	6.6%
Professional and Business Services	-1,215,000	-6.7%	23.7%	-72,000	-8.2%	28.7%
Education and Health Services	579,000	3.1%	-11.3%	12,400	1.6%	-4.9%
Leisure and Hospitality	-351,000	-2.6%	6.8%	-19,600	-3.7%	7.8%
Other Services	-92,000	-1.7%	1.8%	-1,000	-0.4%	0.4%
Government	169,000	0.8%	-3.3%	200	0.0%	-0.1%

Source: Bureau of Labor Statistics, Illinois Department of Employment Security, National Bureau of Economic Research

are now gone. It is also important to keep in mind that data from the current recession are still considered preliminary and are subject to revisions.

The data in the table yield some interesting information about other industry sectors. Employment losses in Construction for the current economic recession are about twice as much for the nation as in the 1990-91 recession but significantly higher than in the 2001 recession. It should be expected that these jobs will eventually return as much of this decline is due to a cyclical shift of the stagnant housing market. A large proportion of the losses in the Professional and Business Services sector seem to be caused by a reduced demand for temporary services as the economy contracts.

The Financial Activities industry sector may have suffered some permanent job losses, at least within Illinois. It is possible that this industry may undergo a restructuring process that could change the way it operates. Regulations in the Financial Services industry may face many changes over the next few years. Currently consumer credit conditions are tight. Consumer credit may be harder to obtain in future years as well depending on legislative changes currently pending. Ultimately they will adversely impact other sectors such as Leisure & Hospitality and Trade, Transportation, & Utilities (especially Retail Trade). The Leisure & Hospitality sector has currently had more significant job losses than in the prior two recessions and these may be slow to return if consumer behavior changes in favor of savings vs. spending. The Retail Trade component of Trade,

Transportation, & Utilities has been especially hurt in the current downturn as many name retailers have either gone out of business or are struggling to survive.

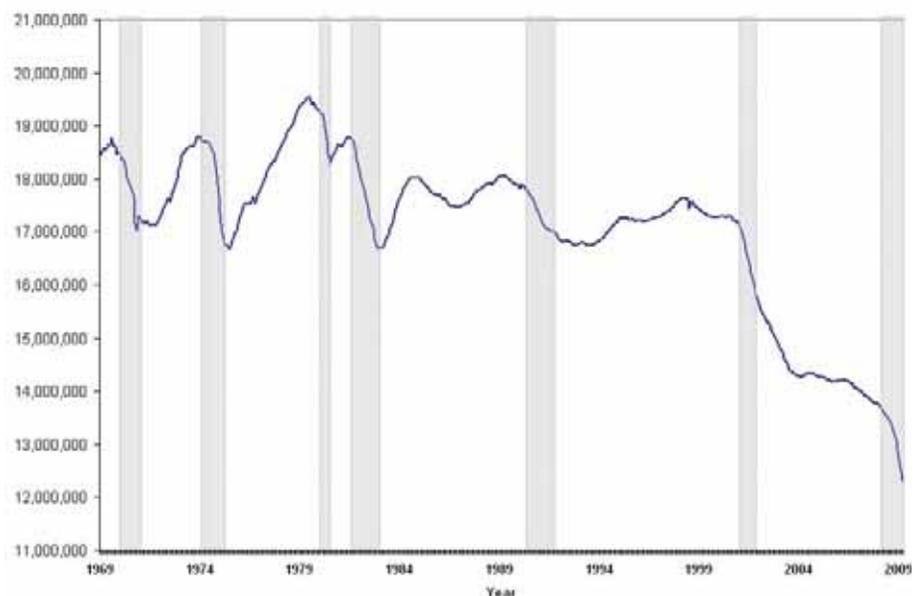
Exhibit 7 is a chart of NAICS-coded Manufacturing employment for the United States for 1969 through March of 2009 (NAICS-coded Illinois employment is only available back to 1990). For both of the first two recessionary periods (1969-70 and 1973-75 denoted by gray background) shown on the chart, employment rises to a higher employment than the peak employment prior to the decline in employment. Manufacturing employment partially rebounds after each of the next three economic recessions (1980, 1981-82, and 1990-91).

After the 2001 recession employment in Manufacturing did not turn back up but the rate of decline moderated. The rate of decline in Manufacturing employment has increased during

the current economic recession and it is yet to be determined if the rate of decline in employment will once again slow in this sector or perhaps even rebound to some extent. It is also possible that the faster rate of employment decline could continue for several more months. The most vulnerable jobs have already been lost though.

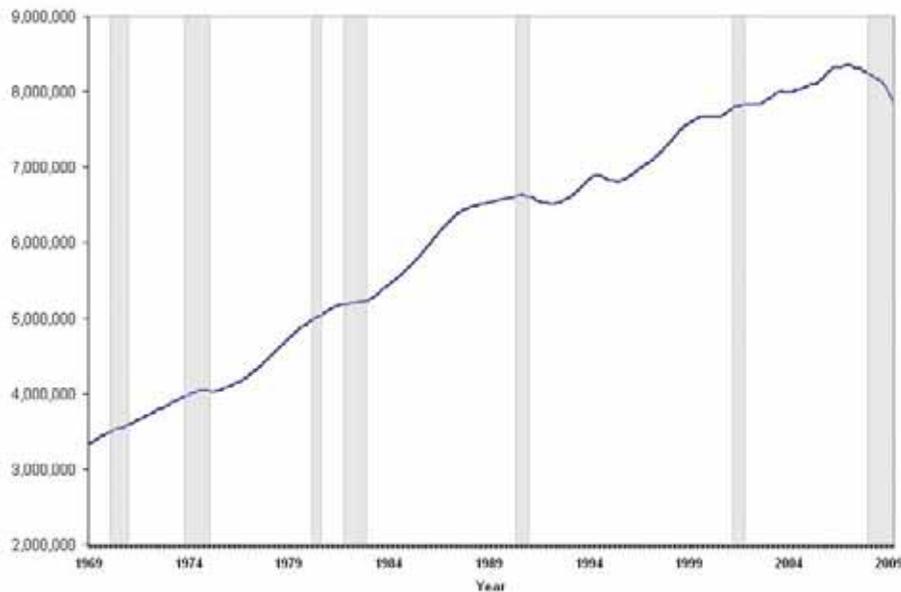
Financial Activities data from 1969 to March 2009 is shown in Exhibit 8, on the next page. The industry has seen some slow periods but it appears the decline in employment during the current recession is much more significant than at any other time in the 40 year period. Employment in the sector had been following a steady long-term trend upward. No doubt, analysts will closely monitor how long it takes for employment to regain the previous peak employment level. It would seem that some combination of structural and cyclical shift is occurring in this industry and it may take some time before employment rebounds.

**Exhibit 7: United States Manufacturing Employment (1969 – March 2009)**



Source: Bureau of Labor Statistics

### Exhibit 8: United States Financial Activities Employment (1969 – March 2009)

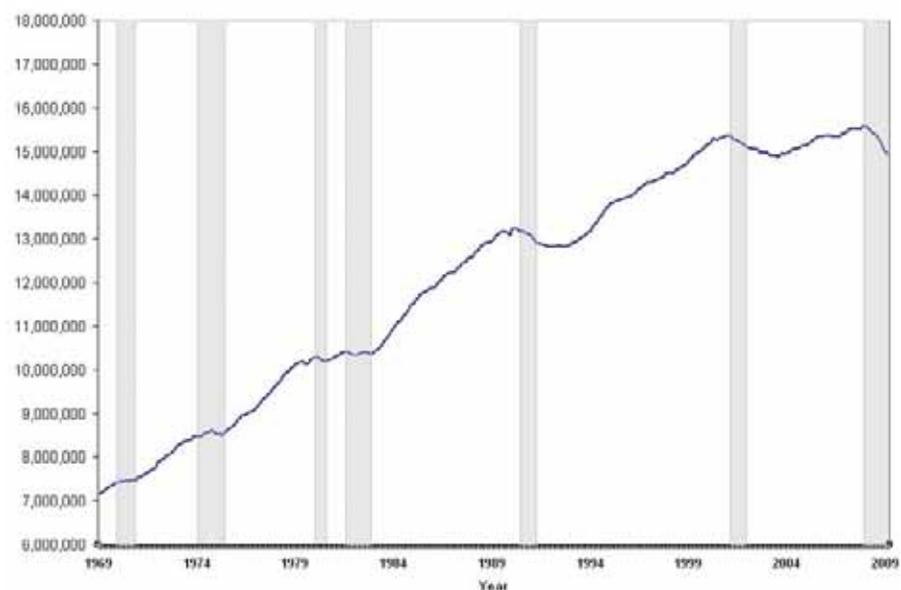


Source: Bureau of Labor Statistics

Exhibit 9 is a graph of data for Retail Trade over the same period. This industry tends to have larger employment declines associated with periods of recession. The previous two recessions had the sharpest declines in the 40 year period prior to the current recession, which appears to have an even

sharper decline in employment. The long-term employment trend had been upward until the 2001 recession. The peak employment had barely surpassed the previous peak before the latest decline. This could mean that the employment adjustment has a larger structural component.

### Exhibit 9: United States Retail Trade Employment (1969 – March 2009)



Source: Bureau of Labor Statistics

It appears that employment trends of various industry sectors may be undergoing shifts not seen in other recent recessions. Dominant structural shifts in these sectors of the economy may foreshadow permanent changes to long-term employment trends.

### Conclusion

Illinois' overall employment growth has been slow and steady, but its proportion of national employment has been declining. Growth in the national economy has been focused in the south, southwestern, and western United States over the last few decades. Some of these regions have put a lot of stress on their resources, especially water, to maintain high growth rates. Now the focus of national economic policy is on a clean energy strategy and rebuilding infrastructure in order to create new industry and good-paying jobs as well as provide a foundation for solid economic growth.

Illinois has natural resources available and its location in the central part of the United States makes it a transportation and distribution hub. These are key components to raising its level of economic growth. New industries will likely be created in the country and Illinois has a chance to play a significant role. New opportunities in the Natural Resources & Mining and Manufacturing sectors may drive employment gains in other industries. Can Illinois reverse long-term trends and transform its economy to have growth at least equal to that of the national average? Illinois may have an opportunity to take advantage of its circumstances to change the future of its economy.

# The Illinois Labor Force and Related 2008 Program Statistics

## Local Area Unemployment Statistics (LAUS)

The Local Area Unemployment Statistics (LAUS) program provides monthly and annual estimates of the labor force, employed, unemployed and the unemployment rate for the State, metropolitan areas, counties and municipalities that have a population of at least 25,000. Statewide and sub-state LAUS data can be found on the LMI Source: <http://lmi.ides.state.il.us/laus/lausmenu.htm>. Monthly press releases and the press release schedule can also be found on the LMI Source site. National unemployment rate data and Current Population Survey (CPS) program information can be found at <http://stats.bls.gov/cps/home.htm>.

**The Illinois unemployment rate increased in 2008 as the economic recession worsened and job losses were reported across most industries.**

**Exhibit 1: Illinois Labor Force, Employment & Unemployment Statistics**

Year	Unemployment Rate		IL Labor Force Participation Rate	IL Employment Population Ratio	Number of Weeks Unemployed		% Unemployed for More Than 26 Weeks	
	IL	US	Rate	Ratio	IL	US	IL	US
1995	5.2	5.6	68.3	64.8	18.0	16.6	19.2	17.3
1996	5.3	5.4	68.6	64.9	16.5	16.7	16.9	17.4
1997	4.8	4.9	68.7	65.4	16.7	15.8	16.5	15.8
1998	4.5	4.5	68.6	65.5	15.9	14.5	15.5	14.1
1999	4.5	4.2	69.1	66.1	14.8	13.4	12.8	12.3
2000	4.5	4.0	69.2	66.1	13.6	12.6	12.9	11.4
2001	5.4	4.7	68.6	64.9	14.9	13.1	14.2	11.8
2002	6.5	5.8	67.3	62.9	18.5	16.6	19.8	18.3
2003	6.7	6.0	66.5	62.0	20.9	19.2	25.8	22.1
2004	6.2	5.5	66.4	62.2	23.1	19.6	26.0	21.8
2005	5.8	5.1	66.6	62.8	24.1	18.4	27.0	19.6
2006	4.6	4.6	67.4	64.3	21.7	16.8	24.3	17.6
2007	5.1	4.6	68.2	64.7	19.3	16.8	22.6	17.6
2008	6.5	5.8	67.8	63.4	20.4	17.9	23.1	19.7

Source: Illinois Department of Employment Security

The Illinois unemployment rate increased in 2008 as the economic recession worsened and job losses were reported across most industries. Annually, the unemployment rate increased 1.4 percentage points to 6.5% (shown in Exhibit 1), reporting its highest level since 2003 and largest over-the-year gain since 1982. However, the annual average masks the steady growth in the unemployment rate during 2008, which had reached 7.2% in December. Nationally, the unemployment rate rose to 5.8%, up from 4.6% in 2007.

The Illinois unemployment rate increased in 2008 for both men and women, among racial minority groups and youth (ages 16-19) - but not uniformly. Unemployment data on race/gender groups can be found at [http://lmi.ides.state.il.us/laus/characteristics\\_emp\\_unemp.htm](http://lmi.ides.state.il.us/laus/characteristics_emp_unemp.htm). The unemployment rate for women rose 1.7 points to 6.2%, while men saw their unemployment rate climb 1.3 points to 6.9%. White, Black and Hispanic workers saw their unemployment rates increase by more than 1.0 point in 2008 but there were large disparities

in unemployment rate levels among these groups. The 2008 unemployment rate for Whites was 5.7%, as compared to 12.1% for Blacks and 6.6% for Hispanics. The unemployment rate for those aged 16-19, rose 4.6 points to 21.3%, with the largest increases for White (+4.6 points) and Black (+2.9 points) youth.

## Union membership proportions in wage and salary jobs have been lower nationally than in Illinois.

The number of people in the Illinois labor force changed only slightly in 2008, rising 7,700 or 0.1%. Despite this small increase in the labor force, the proportion of the working-age population dropped four/tenths of a point to 67.8%, following three straight years of increases. The labor force participation rate for men declined six/tenths of a point to 74.6%, while women saw their participation rate fall just two/tenths of a point to 61.0%. Labor force participation rates fell for both White (-0.5 point) and Black (-0.3) workers but increased for Hispanics (+3.2). Among those aged 16-19, the labor force participation rate increased +1.5 points to 43.8%, with Black youth reporting a gain of +3.0 points to 28.9%; most of this increase was due to growth in unemployed.

The number of people employed fell 85,000 (1.3%) in 2008, the largest decrease since 2002. The percentage of Illinois working-age population that was employed dropped -1.3 percentage points in 2008 to 63.4%, following two consecutive years of growth. The decline in the percentage of the population that was employed was about the same for men (-1.5 points) and women (-1.2 points). Employment participation rates dropped for both White (-1.3 points) and Black (-1.1 points) workers but increased +2.2 points for Hispanics. Youth workers saw their employment participation rate decrease only slightly (-0.8 point).

As the economy weakened into 2008, it took longer for the unemployed to find new employment. The average duration of unemployment in Illinois was 20.4 weeks, up +1.1 weeks from 2007. Nationally, the 2008 average duration of unemployment was 17.9 weeks, up +1.1 weeks from the previous year. Nearly one in four (23.1%) Illinois unemployed were out of work for more than 26 weeks in 2008 (also referred to as long-term unemployment). However, this percentage was up only slightly (+0.5 point) from the 2007. Across the U.S., the proportion of long-term unemployed was 19.7% in 2008, up +2.1 points from the previous year.

**Exhibit 2: Union Membership in Illinois and the United States (Membership levels displayed in thousands)**

YEAR	ILLINOIS	UNITED STATES		% Private	% Public
	Union Members	% of Employed	% of Employed	Sector Employed	Sector Employed
1983	1,064	24.2	20.1	16.5	36.7
1990	N/A	N/A	16.0	11.9	36.5
1991	N/A	N/A	16.0	11.7	36.9
1992	N/A	N/A	15.7	11.4	36.6
1993	N/A	N/A	15.7	11.1	37.7
1994	N/A	N/A	15.5	10.8	38.7
1995	1,042	20.2	14.9	10.3	37.7
1996	1,043	20.0	14.5	10.2	37.6
1997	971	18.5	14.1	9.8	37.2
1998	1,004	18.9	13.9	9.5	37.5
1999	993	18.0	13.9	9.4	37.3
2000	1,049	18.3	13.4	9.0	36.9
2001	1,013	18.1	13.3	8.9	36.8
2002	1,069	19.6	13.3	8.6	37.3
2003	967	17.9	12.9	8.2	37.2
2004	908	16.8	12.5	7.9	36.4
2005	927	16.9	12.5	7.8	36.5
2006	931	16.4	12.0	7.4	36.2
2007	842	14.5	12.1	7.5	35.9
2008	939	16.6	12.4	7.6	36.8

Source: U.S. Department of Labor, Bureau of Labor Statistics, Bureau of National Affairs

## Union Membership

About 939,000 Illinois workers, or 16.6% of all those employed in wage and salary jobs in 2008, were members of unions as shown in Exhibit 2, on the previous page. The proportion of Illinois workers who were members of unions rose +2.1 percentage points from 2007, the largest annual gain since the U.S. Bureau of Labor Statistics began reporting union membership data for states in 1995. However, Illinois union membership percentages have declined steadily over the past 25 years; in 1983, nearly one out of four Illinois workers belonged to unions.

Union membership proportions in wage and salary jobs have been

### Exhibit 3: Total Extended Mass Layoff Events and Workers Separated in Illinois

Year	Number of Layoffs	Total Workers Separated
1996	373	64,441
1997	369	63,951
1998	385	88,732
1999	402	93,653
2000	455	108,971
2001	653	165,058
2002	603	141,461
2003	553	124,569
2004	461	107,240
2005	455	101,106
2006	408	86,832
2007	431	81,719
2008	590	119,692

Source: Illinois Department of Employment Security

### Exhibit 4: Illinois Extended Mass Layoffs by Major Industry Group (2008)

Industry Group	Number of Layoffs	Total Workers Separated
Total, all industries	590	119,692
Mining	4	700
Construction	149	22,824
Manufacturing	114	22,541
Wholesale Trade	14	2,174
Retail Trade	48	12,105
Transportation, Warehousing, Utilities	40	11,344
Information	6	1,266
Financial Activities	27	4,071
Professional & Business Services	135	29,175
Educational and Health Services	14	2,217
Leisure and Hospitality	30	9,940
Other Services, except Public Administration	9	1,335

Source: Illinois Department of Employment Security

lower nationally than in Illinois, remaining around 12.5 percent of employed since 2004. About eight percent of all private sector workers were members of unions in 2008, less than half of the percentage reported 25 years earlier. More than one-third of all public sector workers were members of unions in 2008; this percentage has remained fairly stable for the past 25 years.

### Mass Layoff Statistics

The Mass Layoff Statistics (MLS) program is a Federal-State initiative that identifies, describes and tracks large job cutbacks in private, non-farm industries. Establishments that have 50 or more initial Unemployment Insurance (UI) claims filed against them within a five-consecutive week period are identified as having potential mass layoffs. Once identified, employers are interviewed by telephone to collect information not available in UI administrative records, such as

the size and duration of the layoff, the reason for the layoff, the open/closed status of the worksite, and recall plans for the affected workers. An extended mass layoff is defined as a layoff event involving at least 50 workers separated for more than 30 days. Names, locations and other information on individual employers collected in the MLS program are confidential and may not be released to the public, as per federal law. You can find MLS data for Illinois at statewide and sub-state levels at <http://lmi.ides.state.il.u/mls.htm>. Both national and state MLS data are available at the following Web site <http://stats.bls.gov/mls/home.htm>.

Total extended mass layoffs events and worker separations rose sharply in 2008 as business conditions deteriorated throughout the economy. The number of workers separated in extended mass layoffs increased nearly 38,000 from 2007 to 119,692 (as shown in Exhibit 3) - the highest number of separations since 2003.

Mass layoffs occurred across all major industry groups but the largest numbers of separations were found in Manufacturing, Professional and Business Services and Leisure and Hospitality (as shown on the previous page in Exhibit 4). The effects of the decline in the real estate industry were most clearly seen in Construction, which saw its largest number of job cutbacks (22,824) since 2003, and Financial Activities, which reported its largest number of annual separations (4,071) on record. 1996 was the first complete year available for MLS program data.

The most frequently cited primary reasons for extended layoffs by employers in 2008 were related to Business Demand and included, among others, Contract Completion, Slack Work and Import/Foreign Competition; these extended layoffs resulted in 52,513 separations. Seasonal layoffs comprised the next largest number of extended layoffs and included 42,819 separations.

There were a total of 53 extended mass layoff events and 12,213 worker separations due to the full or partial closure of establishments – the highest totals since 2004. Retail Trade, followed by Manufacturing, had the largest number of separations among all major industry groups.

Among the 208 extended mass layoff events reported in Illinois during 2008, 155 or about 75% involved at least a partial recall of workers by employers. About 21% of employers reporting extended mass layoffs indicated that they would recall all of their separated workers, usually within 90 days. No employer recall was expected for 10,807 or about 24% of all separated workers.

In 2008, there were 30 extended mass layoffs and 3,935 worker separations due to the movement of work to other domestic or foreign locations within the same company. Among the 30 layoff events, 20 reported were as a result of work moved to domestic locations,

The effects of the decline in the real estate industry were most clearly seen in Construction, which saw its largest number of job cutbacks

including those in Illinois, and 10 were due to work moved to foreign locations. Also, 17 of the layoffs due to the relocation of work involved the closure of Illinois locations.

## Unemployment Insurance

Initial claims for regular Unemployment Insurance (UI) benefits increased by 176,259 and reached 872,368 in 2008. This was the highest level since 2002 as can be seen in Exhibit 5. More than 2.3 billion dollars in regular UI benefits were paid, with an average weekly benefit amount of \$309.53. A total of 148,766 UI claimants exhausted their benefits, the highest level since 2004. The average number of weeks of UI benefits claimed was 16.7, down slightly from 17.3 weeks in 2007.

With unemployment rising across the country, the federal extended UI benefits program, also known

### Exhibit 5: Illinois UI Program Data (1998-2008)

Year	Initial Claims	First Payments	Weeks Claimed	Avg. Weekly Benefit Amount	UI Benefits Exhaustees	Avg. Duration in Weeks
1998	600,164	299,676	5,388,116	\$225.65	95,300	16.3
1999	604,070	307,325	5,408,791	\$240.06	92,449	15.9
2000	636,532	309,386	5,398,867	\$250.22	91,236	15.8
2001	825,811	446,294	7,825,551	\$269.36	129,770	15.4
2002	875,767	466,345	9,728,106	\$278.84	208,620	19.0
2003	855,658	455,182	9,507,972	\$279.56	205,124	19.0
2004	766,032	392,265	8,102,453	\$276.96	174,155	18.9
2005	702,725	351,963	7,088,843	\$282.62	141,819	18.2
2006	670,402	334,744	6,449,572	\$289.22	121,579	17.3
2007	696,109	352,686	6,938,530	\$302.40	124,091	17.3
2008	872,368	445,417	8,335,415	\$309.53	148,766	16.7

Source: Illinois Department of Employment Security

## Exhibit 6: Illinois UI Claimant Characteristics (2008)

TOTAL WEEKS CLAIMED - AVERAGE*		159,300	
BY SEX		BY INDUSTRY	
Male	60.6%	Agriculture, Forestry, Fishing, Hunting	0.4%
Female	39.4%	Mining	0.5%
ETHNICITY		Utilities	0.1%
Hispanic or Latino	15.8%	Construction	19.0%
Not Hispanic or Latino	84.2%	Manufacturing	14.1%
RACE		Wholesale Trade	4.7%
American Indian or Alaskan Native	0.4%	Retail Trade	8.7%
Asian	2.4%	Transportation & Warehouse	5.0%
Black of African-American	23.7%	Information	1.9%
Hawaiian or Pacific Islander	0.0%	Finance & Insurance	5.0%
White	72.7%	Real Estate Rental & Leasing	1.5%
N/A	0.8%	Professional Scientific & Tech Services	5.3%
BY AGE		Mgmt of Companies & Enterprises	0.4%
Under 22	2.5%	Admin & Support, Waste Mgmt, Remd.Serv	12.8%
22-24	5.1%	Educational Services	2.0%
25-34	24.3%	Health Care & Social Assistance	5.9%
35-44	25.6%	Arts, Entertainment & Recreation	1.4%
45-54	25.9%	Accommodation & Food Services	5.0%
55-59	8.7%	Other Services Except Public Admin	2.3%
60-64	5.1%	Public Administration	1.8%
65 and older	2.7%	NA	2.2%
N/A	0.1%	BY OCCUPATION	
		Management	5.2%
		Business & Financial	5.3%
		Computer & Math	1.5%
		Architecture & Engineering	0.8%
		Life, Physical & Social Sciences	0.2%
		Community & Social Services	0.5%
		Legal	0.3%
		Education, Training & Library	1.1%
		Arts, Design, Entertainment, Sports, Media	0.8%
		Healthcare Practitioner & Technical	1.0%
		Healthcare Support	2.0%
		Protective Services	0.7%
		Food Prep. And Serving Related	3.9%
		Building & Grounds Cleaning & Maint.	3.1%
		Personal Care & Services	1.2%
		Sales & Related	8.0%
		Office & Admin. Support	7.9%
		Farming, Fishing & Forestry	0.6%
		Construction & Extraction	4.8%
		Installation Maint. & Repair	2.6%
		Production	15.3%
		Transportation & Material Moving	6.1%
		Military Specific	0.1%
		NA	27.2%

\* Reflecting activity for week including the 12th of each month Source: U.S. Department of Labor, ETA 203

as Emergency Unemployment Compensation (EUC), was established in June 2008 through the Supplemental Appropriations Act of 2008. This program initially paid 13 weeks of extended UI benefits for claimants nationwide who had already exhausted their regular UI benefits. In November, under the Unemployment Compensation Extension Act of 2008, the number of weeks of

UI benefits available in the EUC program expanded from 13 to 20. Also, a second tier of EUC was created for high unemployment states, including Illinois, which provided 13 more weeks of extended benefits. Through December 2008, there were a total of 136,631 initial claims filed and 1,440,966 weeks claimed for EUC benefits. Nearly 422 million dollars in EUC benefits were paid with an average weekly benefit amount of \$306.90.

In November, under the Unemployment Compensation Extension Act of 2008, the number of weeks of UI benefits available in the EUC program expanded from 13 to 20.

Exhibit 6 describes selected characteristics of UI claimants in 2008 based on average continued weeks of UI benefits for the week including the 12th of each month. Among all UI claimants, about 61% were men. By comparison, men comprised 56% of total unemployed as reported in the CPS. Hispanics represented 16% of all UI claimants. Among all racial groups, the largest percentage of weeks claimed were for White (73%) and Black (24%) claimants. Nearly 70% of all claimants were age 35 and older and 17% were at least 55 years old. Approximately 8% of all claimants were age 24 and younger. Among total unemployed reported in the CPS, roughly 35% were younger than age 25. Industries with the largest percentage of weeks claimed were Construction, Manufacturing and Administration and Support/Waste Management and Remedial Services. The occupational groups reporting the largest percentage of UI claimants were Production, Sales and Related and Office and Administrative Support.

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# The Economic Regions of Illinois

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The state of Illinois is divided into 102 counties and the counties are grouped into 10 Economic Development Regions (EDRs). Eleven Metropolitan Statistical Areas (MSAs) are in Illinois although three of them cross the border into other states (Chicago-Naperville-Joliet (IL-IN-WI) MSA; St. Louis (MO-IL) MSA; and Davenport-Moline-Rock Island (IA-IL) MSA). The state of Illinois contains one of the nation's largest metropolitan areas, which is also the anchor of the largest EDR. The rest of the nine regions are either located around at least one urban area of at least 100,000 in population or around a number of smaller communities and includes some of the country's richest agricultural land. The following text is a review of 2008 economic highlights in the ten EDRs.

## Northeast Economic Development Region

By almost any economic measure, the Northeast Economic Development Region (EDR 4) dominates Illinois' economy and is clearly the state's economic engine. Approximately two-thirds of the State's labor force reside within its boundaries. According to agency data, the region accounts for almost 70% of the state's employment and over 74% of the total wages paid by

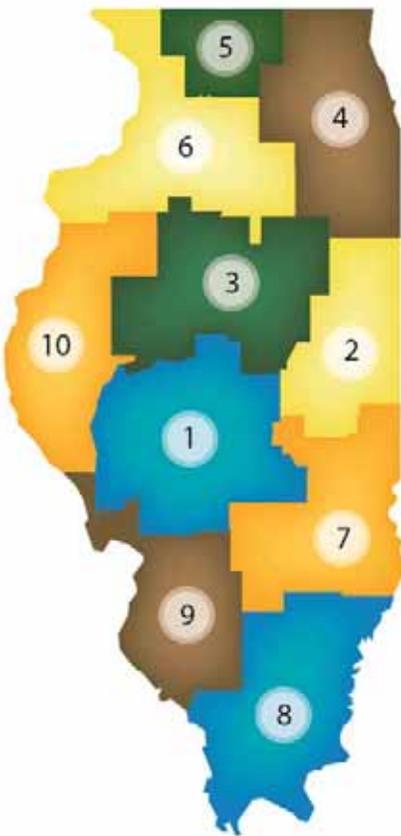


employers. In addition, the region is perhaps the state's most diverse, not only demographically but economically as well. Consisting of the ten counties in the northeast corner of the state and bordered by Wisconsin and Lake Michigan as well as four other primarily rural EDRs, the counties of Cook, Lake, McHenry, DeKalb, Kane, DuPage, Will, Kendall, Grundy, and Kankakee are included in this area. It includes the rural sections of McHenry, DeKalb, Kendall, Grundy, Will and Kankakee, through the suburban portions of DuPage and Cook, and into the world-class urban metropolis of Chicago. The City's status as world-class is illustrated by its selection by the U.S. Olympic Committee as its entrant into the competition to host

the 2016 Olympic Games, cultural institutions, extensive domestic and foreign tourism industry, and standing as one of the country's premier convention centers.

Given the region's strategic, central location in the continental United States, extensive transportation facilities in all forms exist for interaction with all points of the globe. Chicago continues to build on its historic role as the hub of the nation's rail network, remaining the interchange point between east and west coast railroads and north/south shipments to the port of New Orleans. This role has been enhanced by the acquisition of the EJ&E by the Canadian National Railroad, partially alleviating the bottleneck that existed by rerouting

**Map 1: The 10 Illinois Economic Development Regions (EDRs)**



- EDR 1. Central** - Cass, Christian, Greene, Logan, Macon, Macoupin, Menard, Montgomery, Morgan, Sangamon, Scott, Shelby Counties.
- EDR 2. East Central** - Champaign, Douglas, Ford, Iroquois, Piatt, Vermilion Counties.
- EDR 3. North Central** - De Witt, Fulton, Livingston, Mc Lean, Marshall, Mason, Peoria, Stark, Tazewell, Woodford Counties.
- EDR 4. Northeast** - Cook, De Kalb, Du Page, Grundy, Kane, Kankakee, Kendall, Lake, Mc Henry, Will Counties.
- EDR 5. Northern Stateline** - Boone, Ogle, Stephenson, Winnebago Counties.
- EDR 6. Northwest** - Bureau, Carroll, Henry, Jo Daviess, La Salle, Lee, Mercer, Putnam, Rock Island, Whiteside Counties.
- EDR 7. Southeastern** - Clark, Clay, Coles, Crawford, Cumberland, Edgar, Effingham, Fayette, Jasper, Lawrence, Marion, Moultrie, Richland Counties.
- EDR 8. Southern** - Alexander, Edwards, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Johnson, Massac, Perry, Pope, Pulaski, Saline, Union, Wabash, Wayne, White, Williamson Counties.
- EDR 9. Southwestern** - Bond, Calhoun, Clinton, Jersey, Madison, Monroe, Randolph, St. Clair, Washington Counties.
- EDR 10. West Central** - Adams, Brown, Hancock, Henderson, Knox, Mc Donough, Pike, Schuyler, Warren Counties.

trains around Chicago rather than through the city. Emphasis on energy efficiency only reinforces the vital nature of this interchange function. Will County’s container port facilities, the world’s third largest, are being modernized and expanded and additional installations planned, although delays resulting from the current recession are being encountered since enhanced logistical support is not necessary at reduced commercial levels. However, for the region to continue its historical function when conditions improve, substantial infrastructure investment must be made.

An extensive system of interstate highways serves the region and its workforce, connecting all points

of the U.S. Water shipping routes intersect through the Great Lakes/ St.Lawrence Seaway to Europe and through the Des Plaines and Illinois Rivers to the Mississippi River and the Gulf ports. Air transport facilities continue to be critical to the region’s economic viability, with O’Hare International a magnet to attracting economic activity to the region. Access is gained to all corners of the world through O’Hare, where a modernization program is now underway to expand capacity and efficiency in order to assure its continued place in national aviation. Chicago Midway adds a second airport to the air accessibility. Finally, the region is served by the Chicago Regional Transportation Agency and other systems that allow commuting to

worksites and other purposes so that employment is available to all regardless of place of residence. In spite of the current economic turmoil, Chicago remains a convention and tourism destination, with indirect benefits spreading to other mostly related industries and occupations

Economic trends in the region reflect changes in the national economy, with a clear change of direction away from the historically viewed “rust belt” toward services. A decline of 125,000 jobs in goods producing industries has only been partially offset by the 83,000 job increase in service providing, but as a percentage of total employment, the goods producing sectors have declined from 17% to 14% in the

2001-2008 period. Employment opportunities continue to exist in manufacturing, however the skill requirements resulting from training and education continue to increase as well as increasing productivity in the manufacturing sectors requiring fewer workers in order to produce a given output. The result is the reduction of necessary manufacturing employment. The decline of manufacturing, with its historical greater wage levels, has also resulted in the erosion of regional wage levels as these jobs are replaced by service providing industry employment with its historical lower wage levels. Kankakee County illustrates this effect.

Construction and manufacturing remain the hardest hit by declining employment since the onset referred to above. In manufacturing, the impact of severely curtailed consumer demand has translated into continued declining employment totals although, as also stated above, positions do exist with increased skill requirements. Construction, booming for the first part of the year with the expected seasonal factors, has experienced a dramatic decline. Recessionary economic conditions coupled with the freezing of the credit markets have combined to bring almost all construction activity to a halt. Residential construction has been particularly hard-hit in the collar counties of Will, Kendall, and to a lesser degree Kane and McHenry. The first two, among the fastest growing nationally in total population and percentage respectively during 2007, have suffered the effects of the mortgage crisis in the form of foreclosures and short sales,

causing new construction to grind to a halt. Without ever-increasing new construction, the retail and service industries that follow restrict employment. Commercial and retail construction, particularly in the Chicago Central City, has become limited to finishing projects started before the economic meltdown. Some properties, including a luxury hotel on Chicago's Near North Side, have suspended or cancelled construction. Condo construction also concentrated on finishing projects in process, resulting in a historically high inventory of unsold units.

The two sectors, where employment growth stood the best chance of becoming reality again, resisted national influences throughout much of the year, displaying modest growth until flattening out late in the year. Professional and Business Services, including Employment Services (Temporary Agencies) remained strong and Educational and Health Services while not declining, did not display the strong expectations some observers predicted.

## North Central Economic Development Region

The North Central Economic Development Region (EDR 3) is located midway between Chicago and St. Louis and consists of the following ten counties: De Witt, Fulton, Livingston, Marshall, Mason, Mc Lean, Peoria, Stark, Tazewell, and Woodford. The area has two metropolitan areas, the Peoria MSA (Marshall, Peoria, Stark, Tazewell and Woodford) and the Bloomington-Normal

MSA (Mc Lean). The largest cities are Peoria and the twin cities of Bloomington and Normal. The land outside the cities is rich farmland with corn and soybeans as the major crops. Commerce runs on the many interstates that crisscross the region and on the Illinois River that eventually flows into the Mississippi.

The national economic crises did not spare the North Central Region in 2008. Labor market conditions began to deteriorate as the unemployment rate went up to 5.7 percent. The credit crunch hurt the Construction industry. Construction employment which had grown from 12,980 in 2003 to 13,985 in 2007 fell to 13,810 in 2008. The recession also had a significant impact on manufacturing which had grown to 41,324 in 2007 from 38,185 in 2003. During 2008 manufacturing employment stopped growing as the demand for locally produced goods lessened. Those employers who had been enjoying good times based on exports also found their orders down as foreign countries endured recessions. Over the year manufacturing employment was up only 243 to 41,567. One major sector that was not severely affected by the credit crunch was Financial Institutions since much of the area's employment was in insurance. Nationally, lending institutions were the financial establishments that suffered from the credit crunch. Financial Activities employment was 22,137 in 2003, 22,354 in 2007 and 22,420 in 2008.

The year saw some movements in green industries. On the positive side, there are numerous proposals for wind farms as the geography in

this part of the state is wind turbine friendly. The initial employment boost was in construction with 200 workers needed to build the wind turbines in a typical development. Once in place the typical wind farm will result in only about 10 to 30 permanent jobs. Proposed tax breaks for wind energy projects would accelerate this trend. There is usually opposition to wind farms from neighbors who do not like to look out their windows and see large wind turbines. A Peoria company which has been developing high-tech batteries has the potential to be helped by a trend to autos that are not totally dependent on fossil fuels. These advanced batteries will be needed for all-electric and hybrids.

## Southwestern Economic Development Region

All modes of transportation intersect in the Southwestern Economic Development Region (EDR 9), roughly approximating the Illinois Section of the St. Louis Metropolitan Area bordering the Mississippi River. The area is defined as the most cost-effective transportation hub in the United States and in it resides the third largest labor market in the state of Illinois. The bi-state St. Louis Region is the second largest rail center in the United States as well as the northernmost year-round port on the river. Three airports serve Southwestern Illinois, Mid-America St. Louis in St. Clair County, plus two regional airports, St. Louis Regional in Madison County, and St. Louis Downtown Airport in St. Clair County. Lambert-St. Louis International Airport in St. Louis is

accessible by the MetroLink light rail system that extends from Scott Air Force Base, the area's largest employer.

## The Southwestern Economic Development Region is defined as the most cost-effective transportation hub in the United States and in it resides the third largest labor market in the state of Illinois.

Expansion of the Scott Air Force Base Corridor as a result of the Base Realignment and Closure brought new jobs and groundbreakings. The 932nd Operations Group facility will become a combined operations facility for the 932nd Operations Group, the 73rd Airlift Squadron and the 54th Airlift Squadron. Expected to be completed by 2010, an estimated 200 jobs will be added to the existing 14,000 workers employed at the base, the largest employer in Illinois south of Springfield. Scott Air Force Base brought an estimated \$2 billion into the regional economy in 2008. About 135 active-duty airmen, including maintenance and support personnel, will be arriving at Scott in July 2009 as a result of the ongoing initiative to make the armed forces leaner and reduce redundancy. The Illinois

Air National Guard 126th Air Refueling Wing will be part of a KC-135 Stratotanker unit that will include both guard and active duty personnel. Contractors providing services critical to the operations at the base also contribute to employment stability. Residential construction for personnel continued in and around the base, as well as hotel construction nearby.

Other major construction projects included a \$3.6 billion expansion at an oil refinery, ethanol plant construction, major hospital, warehouse and educational facility expansions and retail development throughout the area. Mississippi river projects included the start of the long-awaited bridge construction and repair of the levies. Regional cooperation and collaboration has contributed to relatively stable economic conditions for most of 2008, despite a sluggish national economy, until steel manufacturing came to an abrupt halt. Overall, total non-farm employment declined from December 2007 to December 2008 by 0.6 percent with private employment declining 1.0 percent.

The Corn to Ethanol Research Center at Southern Illinois University Edwardsville is home to an analytical lab and fermentation lab that provides third party validation and commercial testing of products, technologies and concepts. Green jobs include employment at ethanol plants in the region. Area construction workers are currently building the Prairie State Energy Campus which will utilize improved, greener technology to generate electric power from coal.

## Central Economic Development Region

The Central Economic Development Region (EDR 1) is a mostly rural twelve county area in the heart of the state. The counties are Cass, Christian, Greene, Logan, Macon, Macoupin, Menard, Montgomery, Morgan, Sangamon, Scott and Shelby. The area includes two metro areas, the State Capital of Springfield in Sangamon County and just to the east, Decatur in Macon County. Besides the abundant agriculture, the area has traditionally had a reliance on State Government as the major employing sector, especially in the Springfield area. Decatur has traditionally been the base of the area's Manufacturing sector but over the years has gradually diversified into a more service oriented economy, less dependent on manufacturing. The region is also known as the medical hub of downstate Illinois, mostly due to Springfield's vibrant medical facilities as well as being home to the world renowned Prairie Heart Institute.

According to the July 2008 Census estimates, the Central EDR had a population of approximately 547,315, making it the fourth most populous of the ten regions and accounting for 4.2% of the state population. With 194,925 residents, Sangamon County is the largest and Scott County with 5,181 citizens is the smallest in the region. The region's population has declined by 1.5% since 2000. There are four cities in the region that act as hubs of employment, each having a population of 15,000 or larger. The most populous is Springfield,

followed by Decatur, Jacksonville (Morgan County) and Lincoln (Sangamon County).

Home to the state capital of Springfield, the region's largest industry sector is Government. The next largest industry sectors are Educational and Health Services, Manufacturing, Retail Trade and Leisure and Hospitality. Education and Health Services showed the largest increase in employment since 2003, growing at over 5 percent. Decatur and Springfield are both home to major health care facilities, with Springfield acting as the medical center for all of downstate Illinois. Over the past year, there has been one new psychiatric hospital opened and a large addition to an existing facility was completed. Health Care will continue to grow as there are a number of expansions and renovations planned at many of the existing medical facilities throughout the region and one new acute care hospital will be opening in 2010.

The Leisure and Hospitality sector accounts for a large number of jobs in the region. Much of this sector revolves around the many Lincoln sites around the region. The completion of the Abraham Lincoln Presidential Museum and Library Complex in Springfield in 2006 boosted employment from 2005 to 2006 but has since leveled off. Sangamon County has always benefited from the Lincoln sites, but after the opening of the museum and library, tourism increased in many of the surrounding counties as tourists that came to the Springfield area visited many of the Lincoln sites located in other counties in the region. The sector is expected to grow 1.46 percent through 2016, much faster than the overall growth in the region.

## Northwest Economic Development Region

The Northwest Economic Development Region (EDR 6) is located in the northwest corner of the state, south of the Wisconsin



*Besides the abundant agriculture, the Central EDR has traditionally had a reliance on State Government as the major employing sector, especially in the Springfield area.*

border to the east of the Mississippi River. The region includes the counties of Bureau, Carroll, Henry, Jo Daviess, La Salle, Lee, Mercer, Putnam, Rock Island, and Whiteside Counties. A major east-west interstate highway links the area to a national transportation route. Interstate links also provide the area with access to north-south highways. The region's western counties are able to utilize water transportation on the Mississippi River. Future transportation plans include expanding the highway that runs through the northern section of the region that connects the region to Rockford and Chicago. The Davenport-Moline-Rock Island Metropolitan Statistical Area (Illinois and Iowa) is the economic and employment center of the region (Henry, Mercer, and Rock Island Counties in Illinois).

Through several recessions, the Manufacturing sector has experienced declines and the region has worked to diversify the economy. The public sector is now the dominant employer in the region, with Manufacturing now

a distant second. Contributing to the strength of the public sector is a military base and arsenal in the Davenport-Moline-Rock Island Illinois-Iowa Metropolitan Statistics Area. Base Realignment and Closure Commission will relocate part of the arsenal workforce. Nevertheless, the base has been expanding other operations and growing its workforce.

The recent downturn in the economy has affected the area's Tourism industry. Tourism is an important segment of the area's economy, especially the winter and summer activities in the northwest county of Jo Daviess. Other area counties are investing efforts into promoting and expanding local attractions in an effort to increase their Tourism industry. The Warehousing industry has been expanding in recent years, with the additions of several distribution centers for national retail chains in the region.

Industry employment grew from its 2003 levels until the economy began to falter in 2007-2008. Job losses were especially significant

in the region's Manufacturing sector. An increase in the cost of fuel and then a decline in the economy led to employment losses in the Manufacturing sector that produced leisure vehicles. The farm implement industry has also started to experience job losses as the Agriculture industry deals with the changing prices in commodities. As the demand for manufactured items declines nationally, local steel producers have announced closing their facilities. From 2003, labor force data shows an increase in the unemployment rate from the region's low of 4.9 percent in 2006 to a five-year high of 6.8 percent in 2008. The national recession has affected employment in several industry sectors in the Northwest Region and has led to a higher unemployment rate in 2008.

Following the national and state trend, the economy in the Northwest EDR has experienced employment losses in 2008. The region's employment diversification contributed to the region's ability to have a slower over the year growth in the unemployment rate compared with other regions. Federal construction projects at the military base, in addition to the expansion of some base operations expanded employment opportunities in the region.

The Transportation-Warehousing-Utilities sector grew as a national shipping company expanded its warehouse operations and the opening of new grocery outlets led to expansions in the Retail Trade industry. A new gaming operation and hotel complex in the Illinois Section of the Quad cities led to growth in the Leisure-Hospitality



*The farm implement industry has also started to experience job losses as the Agriculture industry deals with the changing prices in commodities.*

sector. Positive employment gains in several industry sectors were not enough to offset the negative affects of the national economy on the region in 2008.

## Northern Stateline Economic Development Region

The Northern Stateline Economic Development Region (EDR 5) is located on the north-central border area of the state and includes Boone, Ogle, Stephenson, and Winnebago counties. Interstate highways link three of the four counties to the Chicago Metropolitan region. A large railroad hub in Ogle County compliments the area's many commercial rail transportation connections. Boone, Stephenson, and Winnebago counties are on the Illinois border with Wisconsin and share a regional approach to economic development for the area. The region has only one metro area, the Rockford Metropolitan Statistical Area (Winnebago and Boone Counties).

The region has a long history as a manufacturing center, undergoing several manufacturing transformations over the years. The EIGERlab, a research facility established in 2004 to study advanced manufacturing technologies, is assisting manufacturers in the region with the next generation of manufacturing technology. While manufacturing still is the largest industry sector of the area's employment, the decline is evident from the 2001 level of 50,672 to its 2008 level of 41,563. The downward trend preceded the 2001 national recession and continued until the expansion of the

Rockford Metropolitan Statistical Area's auto assembly plant in 2005. Recent changes in the automotive industry have led to further declines at the area's auto assembly plant and local companies that supply the auto industry.

Overall, 2008 was not a very good year in the Northern Stateline region. The largest manufacturer

### Companies in the aerospace industry announced expansions and noted their employment growth in the past few years.

in the region eliminated one shift and more than 600 jobs. Employers tied to the auto industry were affected by the decline as that industry first confronted the sharp increase in the cost of gas and then the financial crisis. The decline in the construction industry led to the closure or layoffs at regional companies that supply products and services to the construction industry. As national employers reorganized their structure to reduce costs, the region lost employment as those employers shifted work outside the region and the state.

Although the economic changes in 2008 hurt many employers in the region, some employers did announce or expand their businesses. Companies in the aerospace industry announced expansions and noted their

employment growth in the past few years. The Rochelle area continued to utilize its fiber optic cable network and rail hub to attract data management and transportation-warehousing companies. The region's airport completed the first phase of its cargo facilities expansion to complement its existing facility that has earned them a world ranking in the cargo industry. Growth also occurred at the ethanol plant in Ogle County. Even during difficult economic times, the region has marketed its talented workforce, its infrastructure and its location to enhance its economic base.

The Northern Stateline's manufacturing future may include more employment in "green" industry. JoDaviess County, a western county in the region, is the new location for a large wind farm. Highland Community College, which includes JoDaviess County, now offers a degree and a new building focusing on wind turbine technology. Winnebago County and local economic development officials have been working with a Chinese company that would assemble solar panels in Rockford. To build on its manufacturing history, local employers have been working together to focus their effort to supply products for the large wind turbine industry. The region is tapping into the green jobs initiative and the local economy is benefiting from these efforts.

## East Central Economic Development Region

The East Central Economic Development Region (EDR 2) is located on the eastern border

with Indiana in central Illinois and includes Champaign, Douglas, Ford, Iroquois, Piatt, and Vermilion Counties. Interstate highways link all of the counties in the region to larger, metro areas. The Champaign-Urbana MSA (Champaign, Ford, and Piatt) and the Danville MSA (Vermilion) are located in this region. Illinois' flagship university is in Champaign County and it has provided the area with employment stability as one of the region's largest employment sectors. Manufacturing has also been an important part of the region's economic history, and like other areas in the state and nation, has experienced declines over time.

The region experienced economic changes in 2008 in traditionally cyclical industries such as Manufacturing, but also in more stable industries such as Health Care and Government. In past years, the stability of public sector employment has allowed this region to retain a lower unemployment rate than other areas. Sharp declines in the Manufacturing and other industry sectors have strained the ability of the public sector employment base to offset declines in other industry sectors. Changes in the economy in 2008 led to widespread job losses, and in some situations, significant layoffs. Manufacturing has been the hardest hit, with both durable and non-durable manufacturing employers announcing the layoffs of more than 500 workers.

Software companies attracted to the area have held off on adding employees and some have laid off staff. A local back office support center for the retail trade industry

started offering incentives for voluntary retirement to reduce their payroll. Local governments have reduced their budgets and have started to reduce staffing levels to prepare for lost revenue. Contributing to the municipal budget situation is slower car sales and the closure or consolidation of dealerships. For many years, the

**Most industries continued to experience small declines after 2006, but growth in Education - Health Services and Professional - Business Services allowed total employment to grow from its 2006 level.**

Health Care sector was immune from reductions in their workforce, but in 2008, the region experienced job losses in non-patient care positions at local healthcare centers. Economic changes affected more than metro areas. Layoffs and announced layoffs have devastated communities that have a small number of significant employers.

Labor force and employment by industry data demonstrate the effects of an economic transformation that

continues to change the region. Annual total employment by industry had been experiencing a steady decline since its 2000 level of 163,503 to a low of 159,415 in 2006. Most industries continued to experience small declines after 2006, but growth in Education-Health Services and Professional-Business Services allowed total employment to grow from its 2006 level. These two industries were the only sectors to experience significant growth during the five-year period from 2003 to 2008. During that same period, Manufacturing, Retail Trade, and Leisure-Hospitality had the largest employment losses. Labor force data follows a similar trend, with an increase in the unemployment rate during most of the period since 2000. The unemployment rate from 2003 to 2008 peaked in 2008 at 6.3 percent and had a low of 4.4 percent in 2006.

The region has started to embrace the green energy initiative. The Danville Area Community College is exploring adding a new associate's degree in wind energy technology. The study of wind technology was prompted by the interest several companies have had in locating wind turbines in the county and surrounding counties. As the region expands the development of alternative energy projects, local educational providers are preparing to train people to work on those energy projects.

## **Southern Economic Development Region**

Labor market conditions in early 2008 were not significantly different than the previous year. However, as

the year progressed, the workforce situation deteriorated as the number of layoffs increased causing significantly higher jobless rates. The national economic trends along with increased unemployment, fewer job opportunities, budget restraints, reduced sales and tax revenues, have caused an apprehension among employers and employees. A number of building projects originally scheduled for 2009 have already been postponed until 2010. Thus, 2008 ended with severe concerns for the future and a “wait and see” attitude for 2009.

Manufacturing layoffs plus work week reductions plagued the 19 county Southern Illinois Economic Development Region (EDR 8) in 2008. Numerous auto parts manufacturing factories have suffered payroll losses. Many other manufacturing sites have also cut back and reduced employment in this region especially during the last half of the year.

For many years, a regional effort has been underway to attract vacationers to the lakes, parks, trails etc. Government budget cutbacks for parks and recreation areas in mid-2008 distressed many of the tourism and recreational sites last summer, damaging the region’s hospitality industry.

Southern Illinois University in Carbondale, which is by far the largest employer, contributes substantially to the economic well-being of the region. Employment advances continued in the Health Care Services industry in 2008. A number of long term health care facilities were opened and plans are underway for additional facilities including major hospital expansions.

A resurgent energy industry holds much promise for southern Illinois. Illinois has one-eighth of the total coal reserves and one quarter of the bituminous coal reserves in the

nation. Increased coal production in this region could significantly rebound if projects currently being developed actually materialize. One major project which is actually just outside the Southern Economic Development Region in Washington County is the \$ 2 billion Peabody Prairie State Energy Campus. Construction on the coal-fueled electricity generator and coal mine began in the fall of 2007 and is scheduled for completion in 2011. Another project in Jefferson County that is nearing the construction phase is the \$1 billion Power Holdings coal gasification plant and coal mine.

The Illinois Coal Research Center at Southern Illinois University in Carbondale has been working on technology to gasify coal to create synthetic natural gas. In addition, the Coal Research Center is conducting a feasibility study on the construction and operation of a coal gasification power plant at the university campus. There are also a number of other clean coal projects in the beginning stages of development throughout this region.

## Southeastern Economic Development Region

Stressed business conditions with a hopeful outlook for the development of the FutureGen Energy Project characterized the Southeastern Economic Development Region (EDR 7) in 2008. The manufacturing industries have undergone significant changes with layoffs and work week reductions. The numerous auto parts manufacturing factories scattered



*Southern Illinois University in Carbondale, which is by far the largest employer in the Southern EDR, contributes substantially to the economic well-being of the region.*

throughout the area suffered payroll losses due to the declining national economic situation. Other industrial plants have also cut back and reduced employment, especially in the last half of the year.

The \$2 billion FutureGen coal-to energy plant in Coles County holds the key for the regional recovery. As of the beginning of 2009, over 400 acres are available for the project which could receive funding from the Federal Stimulus Bill. This technology can cleanly convert coal for electricity production (advanced coal gasification techniques) and store excess carbon dioxide underground (sequestration). Another proposed project in Coles County is the Oakland coal-to-diesel fuel plant. This \$1.8 billion plant and coal mine project has been slowed by financial concerns, but is still progressing with a target opening of 2012.

Eastern Illinois University in Charleston, which is the largest employer, contributes significantly to the economic stability of the region. In addition to this university, a number of community colleges add substantially to the local economies and to the strength of the communities. These educational institutions are Lakeland College, Kaskaskia College, Olney Central College, and Lincoln Trail College. The University of Illinois at Urbana-Champaign is also near to these communities and greatly adds to the educational opportunities of the workforce.

Agriculture traditionally has had a major impact on the economy of this region. The solid farming industry with its support system continues, but like all businesses has needed to overcome the national problems of higher fuel prices and costs of operation.

Strong rural communities still dominate the labor market and are the commercial centers of many of the counties in this region. Corn, wheat, and soybeans are major crops grown in this area.

The Construction industry experienced an adequate year. While the housing market declined, there were still numerous building projects such as road construction, medical facilities, educational institution expansions, and commercial projects in 2008. Employment growth has been steady over the years at transportation, distribution and warehousing facilities. Continued expansion is anticipated in the future as well. Even through employment in the trucking industry decreased at the end of 2008, a rebound is expected in 2009.

## West Central Economic Development Region

The West Central Region (EDR 10) is a rural nine county area that is bordered on the west by the Mississippi River between the Quad Cities and St. Louis and is partially bordered on the east by the Illinois River. The region includes the following nine counties: Adams, Brown, Hancock, Henderson, Knox, McDonough, Pike, Schuyler and Warren. The region is primarily farm ground that produces corn and soybeans in the summer and supports a thriving hunting industry in the winter months, especially along the Illinois and Mississippi rivers.



*Agriculture traditionally has had a major impact on the economy of the Southeastern Economic Development Region.*

**The West Central  
Economic  
Development Region  
also benefits from  
a rail system that  
runs throughout the  
area and provides  
both freight and  
passenger service.**

According to the July 2008 Census estimates, the West Central EDR had a population of approximately 225,259, making it the least populous of the ten regions and accounting for 1.7 percent of the state population. The region's population has declined by approximately -4.4 percent from 2000 to 2008, the fastest decline of all regions in the state. With a population of 66,897, Adams is the largest county and Brown at 6,573 is the smallest in the region. There are three cities in the West Central EDR that have a population of 18,000 or larger. The most populous is Quincy in Adams County followed by Galesburg in Knox County and Macomb in McDonough County.

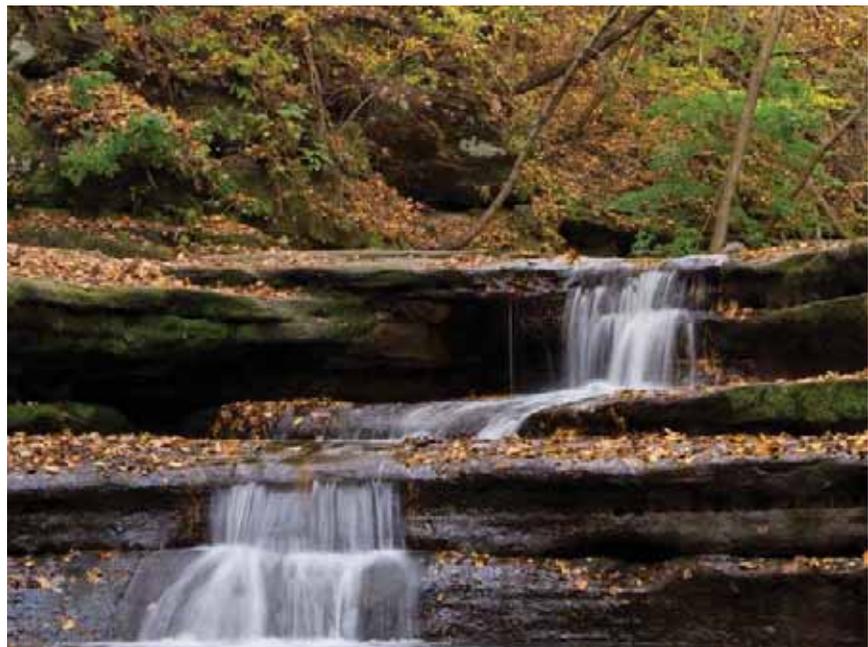
The region is home to some of the state's most beautiful scenery, particularly along the rivers. Local economic developers have spent much time and money on different types of festivals to attract tourists to the area to view the fall foliage

up and down the river basins. The region along the Mississippi River is nationally renowned for the area's white tail deer hunting as well as water fowl hunting. The hunting season brings in thousands of hunters to area hotels/motels and restaurants. Retail development includes an increasing number of hunting outfitters in the region.

In the West Central region, there are three basic modes of transportation for goods: trucking, railroads, and waterways. Trucking is the primary source of transportation for most goods. For many years, local and state economic development officials have lobbied for more funding to complete the Route 67 (Monmouth to St. Louis) and Route 336 (Quincy to Peoria) corridors. These corridors are crucial to attracting and retaining businesses by reducing travel times and transportation costs.

Although there is not an Interstate highway running across the entire region, an Interstate highway serves two of the largest cities in the region. Interstate 72 runs east/west through Pike County and has a north spur (I-172) that serves Quincy, the largest city in the region. Interstate 74 runs through Galesburg in Knox County and has a spur that runs west to Monmouth in Warren County.

The region also benefits from a rail system that runs throughout the area and provides both freight and passenger service. Numerous barge facilities are located along both the Illinois and Mississippi rivers that provide transportation for the abundant corn and soybean crops in the region as well as many other goods. The Illinois River links to the Mississippi River that in turn provides a global marketplace for exported products as well as an import link for incoming products from abroad.



*The West Central Economic Development Region is home to some of the state's most beautiful scenery, particularly along the rivers.*

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# A Clean Energy Strategy Can Create Green Jobs for the Illinois Economy

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Fundamental problems with the global and national economies and a philosophical change in the federal government have provided this country with the opportunity to chart a new economic course. A commitment to a clean energy strategy would give Illinois the chance to reinvigorate its economy and develop the potential for long-term employment gains. A clean energy strategy would require the modernization of infrastructure, the use of cleaner energy production technologies, and incorporation of energy efficient methods. An investment in this strategy by the state of Illinois would create “green” jobs and other employment would be generated through increased economic activity.

Each region of the country (and the world) will have to work with the resources it has available within environmental guidelines to make the best choices for its own energy strategy. Illinois is fortunate in that it has the resources that place it in position to be a clean energy industry leader. Illinois is a large agricultural producer that generates large quantities of biomass needed for biofuels production. In fact Illinois ranks sixth in the country for the market value of its agricultural production<sup>1</sup> (second in the key component of crop production). It



*Illinois is fortunate in that it has the resources that place it in a position to be an energy industry leader. Illinois is a large agricultural producer that generates large quantities of biomass needed for biofuels production.*

also has extensive reserves of coal, ranking ninth in coal production<sup>2</sup>. Illinois’ coal potential is currently under-utilized as the state accounts for almost one-eighth of the total U.S. coal reserves and one-quarter of the nation’s bituminous (high energy value) coal reserves.

No other state ranks above Illinois in both crop production and coal production, making it a state with a unique combination of assets. Given this status, Illinois should be a leader in the biofuels and clean-coal

technology industries. Other clean energy industries could do well in Illinois including wind, solar, smart grid, energy storage, and nuclear.

## Biofuels

Illinois is already a leader in the burgeoning biofuels industry. The state had the third largest production capacity (over 10% of the national total) of corn-based ethanol in 2008<sup>3</sup> behind only Iowa and Nebraska. A map of biomass resources available in the United States is available at: [http://www.nrel.gov/gis/images/map\\_biomass.jpg](http://www.nrel.gov/gis/images/map_biomass.jpg).

Congress gave the Environmental Protection Agency (EPA) responsibility for determining targets for the amount of renewable fuel that should be consumed as fuel in motor vehicles under the Clean Air Act. These targets, known as the Renewable Fuel Standard (RFS), called for 9 billion gallons of biofuel to be consumed in 2008. The 2008 goal was reached as it allowed all corn-based ethanol produced to meet the RFS. An increase in future ethanol demand is expected as states push for increasing the maximum proportion of ethanol that can be blended with gasoline from 10% up to as high as 15%.

The RFS calls for 36 billion gallons of biofuel in 2022 (4 times as much as required in 2008), but tougher requirements will allow only 15 billion gallons of corn-based ethanol to count toward this target. Biofuels that are more efficient at reducing greenhouse-gas emissions must be used to meet the remaining 21 billion gallons of the 2022 RFS target (16 billion gallons must be cellulosic ethanol). These fuels will need to be generated through 2nd- and 3rd-generation technologies whereas corn-based ethanol is considered a first-generation technology. Exhibit 1 provides data on the RFS objectives between 2008 and 2022.

**Exhibit 1: U.S. Renewable Fuel Standard (RFS) (Billion Gallons per Year)**

Year	Total RFS	Corn Ethanol	Advanced Biofuel	Cellulosic Ethanol
2008	9.0	9.0	0.0	0.0
2009	11.1	10.5	0.6	0.0
2010	13.0	12.0	0.95	0.1
2011	14.0	12.6	1.35	0.3
2012	15.2	13.2	2.0	0.5
2017	24.0	15.0	9.0	5.5
2022	36.0	15.0	21.0	16.0

Source: Environmental Protection Agency

Illinois has not yet developed its first cellulosic ethanol facility (<http://www.ethanolrfa.org/resource/cellulosic/documents/CellulosicPlantMap.pdf>) but it has the potential to be an industry leader given its resources and production experience with corn-based ethanol. Not much progress has been made yet because capital costs for plant development are higher than for first-generation plants. The production process to break down carbohydrates for a second-generation ethanol plant is more complex than the process used to break down starches in first-generation technology. Once the facilities are running, operating costs should be lower as the prices of feedstock inputs such as agricultural waste products and grasses will be less than the cost of corn.

The cellulosic ethanol product reduces greenhouse-gases by 86% as compared to the 20% reduction for corn-based ethanol.<sup>4</sup> These second-generation fuels hold many benefits. They limit the amount of agricultural-edible crops that are redirected to fuel production, make better use of agricultural wastes, and do not displace food-bearing crops since inputs such as the grasses can be grown on agriculturally marginal lands.

A first-generation biofuel is typically defined as fuel produced using a feedstock such as an agricultural product that produces sugar, starch or oil and that can be processed into ethanol or biodiesel. This includes corn, soybeans, sugar cane, sunflower seeds, etc. Second-generation biofuels such as cellulosic ethanol are generally based on non-edible agricultural products such as corn-cobs, grasses, wood product residues, and other agricultural wastes. Third-generation biofuels can be developed from algae. Both second- and third-generation products are considered advanced biofuels. Second-generation biofuels are more energy efficient than first-generation and third-generation are more efficient than second-generation where efficiency relates output to input.

Algae-based fuel is currently in the developmental stage. The energy world is attracted to algae as a feedstock because it is able to double its mass several times each day and it happens to produce oil that can be harvested and processed into a fuel for transportation. Studies have shown that carbon dioxide emissions can be diverted to grow algae and so it is considered to be carbon neutral. The amount of carbon dioxide it creates upon combustion would be balanced out by the amount it reduced atmospheric carbon dioxide as it was growing. The carbon dioxide from heavy industry emissions could potentially be utilized, whether it is redirected from power plants or large manufacturers.<sup>5</sup> Algae can also grow using wastewater and perhaps sewage as inputs. Most of the water used for growing the algae can also be recycled.

Water that is high in nitrates has proven to be good for growing algae. Rivers in the Midwest such as the Mississippi are considered high in nitrates because of the runoff from agricultural fields in the region. Algae can be grown in open ponds (currently cheaper), or bioreactors, and does not require good agricultural ground. The potential of algae is enormous although development of the industry is limited until the cost structure for production can be made competitive. The potential for this industry is unclear for Illinois as much of the research being done on algae is taking place in the southwestern and southern United States. However the state does have biofuels expertise, sources of high nitrate water, and the type of

industry to provide a regular supply of carbon dioxide.

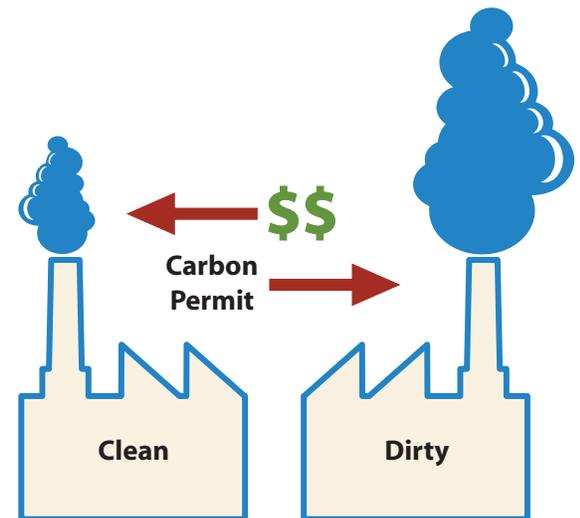
Biodiesel can also be produced to help meet future RFS targets. This biofuel was initially produced from agricultural products such as soybeans and non-edible jatropha (a plant that grows in arid regions and produces oily seeds) and used as a replacement for diesel fuel. The fuel can also be made from waste products such as recycled restaurant grease and farm animal wastes. Illinois has some plants currently producing biodiesel and was ranked third out of all states for actual and planned capacity in 2007.<sup>6</sup> Both the military (national security) and commercial aviation (reliable price and reducing carbon emissions) are supporting research and development of these types of fuels as they seek out a stable supply of fuel.

Biofuel plants will have difficulty succeeding without consistently high oil prices or some type of government policy support. Otherwise it is unlikely that the private sector will provide enough investment to help these industries survive through the developmental stages until they start realizing economic returns. This is the case with many new technologies that need to reduce production costs to become competitive on a mass scale. One concept that is more likely to advance now that the Environmental Protection Agency has declared carbon dioxide emissions a threat to the planet<sup>7</sup> is a carbon cap and trade system. This would likely increase the prices of petroleum products and of those industries

that have high emissions of carbon in their production processes.

## Cap and Trade System

Carbon cap and trade permits are a simple economic concept based on setting a limit of carbon emissions allowed per time period. Businesses that produce carbon emissions will need credits equal to the amount of carbon they allow into the atmosphere. A simple case would involve clean power plants and dirty power plants. Both types of plants would be issued the same amount of credits with the clean plant having more carbon credits than it needs and the dirty plant not having enough. The clean plant could then sell the surplus credits it has on the market where the dirty plant would likely need to buy them. This would raise the costs of production for the dirty plant, likely increasing the price of power to its customers relative to the price of power from the clean plant.



*The cap and trade system allows energy efficient plants to sell energy credits to less efficient plants.*

The initial cap on carbon credits would give value to the trading of credits and as time went on the cap would be decreased. This would make the credits increasingly expensive providing an incentive for the dirty power plant to find ways to reduce its carbon emissions. These monetary transfers reward the clean power plant for being forward-thinking, investing in technological improvements, and reducing costs to future generations. The federal government would collect an amount for the initial issuance of the credits and could use that money to fund other government programs.

A cap and trade system was successfully used in the 1990 Clean Air Act to reduce sulfur dioxide and nitrous oxides emissions in an effort to reduce acid rain. The trading component of the system allows flexibility for polluting sources to select the method of compliance. “Ambient concentrations of SO<sub>2</sub> have decreased by as much as 40% since 1990 in the Northeast and Mid-Atlantic.”<sup>8</sup> The long-term costs of the program are expected to be far below early projections. “Markets provide greater environmental effectiveness than command-and-control regulation because they turn pollution reductions into marketable assets. In doing so, this system creates tangible financial awards for environmental performance.”<sup>9</sup>

## Clean Coal Technology

The cap and trade policy will provide an opportunity for clean coal technology to compete as a source of electricity generation. Coal technology has made technological advancements over the years. The Prairie State coal-powered electricity generating plant

under construction in Washington County in southern Illinois (<http://www.prairiestateenergycampus.com/default.asp>) will use new technologies that drastically reduce the emissions of nitrogen and sulfur compounds as well as other particulates.

Carbon dioxide will be emitted from this plant because carbon capture and sequestration technologies still need to be developed. The capture of carbon dioxide before it is emitted into the atmosphere seems to be the most important next step at this time since recent research has found many other uses for carbon monoxide and carbon dioxide, including conversion into fuels. Carbon sequestration would allow for the underground storage of commercially unusable carbon dioxide.

Illinois is competing for federal financial support for construction and operation of FutureGen, ([www.futuregenalliance.org](http://www.futuregenalliance.org)) a state-of-the-art project planned for the Mattoon area.<sup>10</sup> FutureGen would be the world’s first coal-fueled, near zero emissions power plant. Research conducted at the electricity-generating facility would focus on improving clean coal technology such as carbon capture, hydrogen production and carbon sequestration. The intent is to capture carbon dioxide emissions (60%) and store them below ground level in an area selected for the ability of its geological structure to safely trap the gas.

The new Secretary of Energy, Steven Chu, gave conditional support for the project at a Senate Energy and Natural Resources Committee meeting and has said

A major benefit to the state’s biofuels industry is the knowledge base at the University of Illinois (U of I). The Center for Advanced BioEnergy Research (CABER) at the U of I ([www.bioenergy.uiuc.edu](http://www.bioenergy.uiuc.edu)) facilitates the development of cross-disciplinary research and development, education and outreach programs that promote the greater and more efficient use of bio-renewable resources, especially for advanced biofuels. The U of I also is a partner in the Energy Biosciences Institute ([www.energybiosciencesinstitute.org](http://www.energybiosciencesinstitute.org)) with BP, UC Berkeley and Lawrence Berkeley National Laboratory. The Institute’s mission is to “harness the potential of bioenergy, to make discoveries and commercialize realities out of these, which could benefit the world”.

that “Clean Energy is the best opportunity we have to create jobs today and launch the industries of tomorrow.” As a precursor, ADM is participating in a research project in Decatur that will sequester carbon dioxide from a corn mill 8,000 feet underground.<sup>11</sup> Injections of carbon dioxide from the mill are expected to begin in 2010.

Hydrogen produced at the FutureGen plant could be used someday as an energy source for fuel cells that would power future vehicles. FutureGen’s success would allow the technology and expertise to be exported to other states and around the globe. Illinois would likely have an increased demand for its coal meaning more jobs for the southern half of Illinois.

Without a government policy such as carbon cap and trade, the electricity generated by clean coal technology will likely be more expensive than the power created by existing power plants. However capital investment in the new plants would increase efficiency meaning the same amount of power could be generated from a lesser amount of coal. This would result in improved air quality and thereby a cleaner environment.

## Wind, Solar, Nuclear Energy Sources

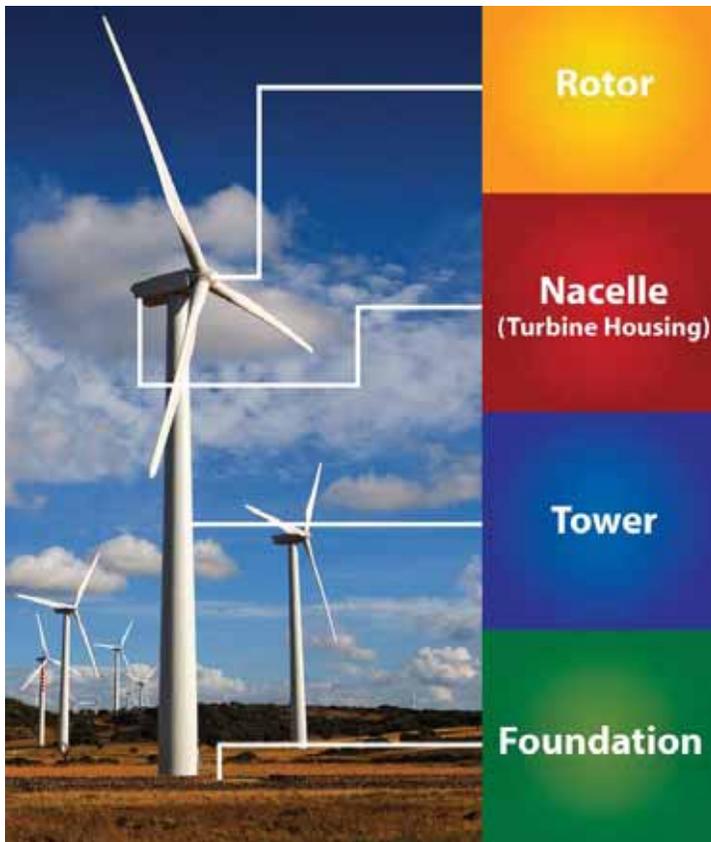
The wind power industry is growing rapidly in Illinois. Many wind farms are located parallel to the Illinois River Valley (within about an hour of the river) as it cuts from the northeast diagonally across the state to the southwest with some being located along the Mississippi River Valley. These areas seem to have the strongest, most consistent winds and can generate electricity for the area along with supplying supplemental income for farmers and others hosting the towers. An upper limit for the proportional share wind-generated electricity may exist because of variable-speed winds.

The industry has created some manufacturing jobs in the state as most of the hardware for wind towers must be produced locally due to the large size of the parts.

The parts used in the tower must be made to exact specifications because it is extremely difficult to disassemble the nacelle once it is installed a few hundred feet in the air. Here is a link to a map of current Illinois wind farm sites and those under construction: <http://www.illinoiswind.org/resources/pdf/WindFarmStatus.pdf>.

Illinois does not have the amount of sun that some areas in the south and southwest United States have, but it could still benefit from solar technology. In California for example, large fields of solar panels can sit in the Mojave Desert to collect intense solar rays all day long. Illinois is more likely to utilize solar energy on a small scale because it does not have the intensity level of sun that southern California does. The larger potential in Illinois seems to be for buildings and homes that have solar panels on the roof or in the immediate area that provide a supplemental power source to the building. Any surplus power generated could be diverted to the electrical grid earning credit for the property owner. However, it is still more expensive to generate electricity using solar cells than through traditional methods.

Improvements are needed in wind and solar energy storage technology since both sources are inconsistent in their power production. Improvements in battery technology would help both of these energy sources increase their market share due to the need to have electricity available when it is required and not exactly when it is generated. Current research is targeted to batteries that will be cheaper and capable of storing the power longer with less energy loss.



Illinois continues to be a leader in nuclear power generation. Given that the nuclear power production process does not emit carbon dioxide, there is some potential for expansion. However a new problem has risen which could stall any new nuclear plant construction in the near term: the federal government may not continue to fund the development of the Yucca Mountain nuclear waste storage site in Nevada, making it more difficult for private investors to plan for nuclear plant development without a safe storage site for the nuclear waste.

This raises the value of research that can develop a process to recycle or eliminate the radioactive waste produced by these power plants. Researchers have identified bacteria that can convert toxic metals (including uranium) into non-toxic metals<sup>12</sup>. The nuclear industry would be unlikely to grow until the waste problem is resolved. France generates 77% of its electricity via nuclear energy.<sup>13</sup> They reprocess all of the recyclable material that the U.S. currently considers nuclear waste and only store the residual. A portion is used as fuel, a portion is used for applications such as nuclear medicine, and a portion has no known applications at this time. New greenhouse gas emissions restrictions could bring additional support to the nuclear industry.

## Smart Grid

Much needed infrastructure could be provided by new smart grid technology. The smart grid concept has evolved as the U.S. Department of Energy initiated a process to facilitate new technologies to ensure an electrical grid that meets 21st century demands. The Office of Electricity Delivery and Energy

Reliability's (<http://www.oe.energy.gov/smartgrid.htm>) objective was to lead national efforts to modernize the electric grid; enhance security and reliability of the energy infrastructure; and facilitate recovery from disruptions to energy supply.

The current lifestyle of people in the Digital Economy is based on electronic gadgets and electricity far more than ever before. The majority of the infrastructure that supports this economic activity was designed and built before the era of the microprocessor.<sup>14</sup> The Illinois Smart Grid Initiative ([www.ilsmartgrid.org](http://www.ilsmartgrid.org)) is a public/private working group organized for interested parties in Illinois to discuss how this concept can work best for the state.

One key aspect of this new technology, and likely one of the first to be phased in, is Advanced Metering Infrastructure (AMI). AMI would involve locating electronic devices in homes and businesses that would allow for real-time information flow between the utility and the customer. The utility could signal the customer during periods of peak load when usage fees would be priced higher. This would allow customers to react by lowering their consumption of electricity. A price structure that encourages customers to utilize appliances such as dishwashers, washers, and dryers during low-cost periods would benefit the customer through cheaper power bills and the utility, which may be able to have a smaller plant capacity.

Later phases of the smart grid would make it easier to integrate alternative power sources such as wind- and solar-generated

Both the Coal Research Center ([www.crc.siu.edu](http://www.crc.siu.edu)) at Southern Illinois University at Carbondale (SIU-C) and the Illinois Clean Coal Institute (<http://icci.org>), part of the Department of Commerce and Economic Opportunity's Office of Coal Development, promote the development and application of new and improved technologies that contribute to the economic and environmentally sound use of Illinois coal.

electricity as it would be more adaptable to plants of smaller size. Power generation would be more local, reflecting a shift in investment toward the electrical grid relative to the power plants since the grid is where almost all power outages originate. It would do more to prevent power outages and give utilities real-time information about weaknesses in the system. Efficiency losses would be minimized using new-age materials and technologies.

## Energy Efficiency, Broadband, Brownfield Rehabilitation, and Water

Energy efficiency is a growing industry that could create many jobs for people without a college education. Jobs that focus on the weatherization of older business and residential buildings would not require a great deal of worker training but would certainly reduce energy usage and power bills. This would reduce the need to increase the capacity of the power generating system and benefit the environment. “The average American family spends about \$2,000 a year on home energy bills, the Energy Department reports. In most cases, a quarter to one-third of that energy is wasted: Air leaks through windows, ducts and poor insulation; older appliances hog power.”<sup>15</sup>

One focus of the federal economic stimulus package funds will be the construction of new broadband networks in underserved areas. The Internet has become an invaluable tool in education and without it youth in these areas may be more at-risk. Most employers and government service agencies now prefer applicants contact them via the Internet. Universal broadband access would allow everyone a fair chance to apply for employment opportunities. One example of how this infrastructure can make an impact on the economy can be seen in the Connect Kentucky ([www.connectkentucky.org](http://www.connectkentucky.org)) project.

Broadband has a positive impact on the environment by allowing businesses to hold meetings via teleconference and workers to telecommute. The 3.9 million people

who currently telecommute save 840 million gallons of fuel and the carbon emissions that go with it<sup>16</sup>. The fiber optics networks used for broadband are more efficient than old copper networks and require lower power transmitters. Broadband is also a critical component of the smart grid as real time information

**Illinois has the potential to be a leader in many energy categories, especially in the biofuels and clean- coal technology industries.**

will need to be passed between the utility and the consumer in order for the system to maximize energy savings.

Brownfield rehabilitation is important because it recycles land resources for other uses, makes the environment safe and clean, and is another industry that can provide jobs that do not require a college education. Cleanup of brownfield sites can reenergize the economy in the surrounding area.

Water supply will also likely become a bigger issue in our economic future. As the population grows the water supply must be divided between more people and industries that want their fair share. It will be critical to have a sufficient water supply available to meet the increased demand. “It is the well-

managed or restored river systems that cope best with climate change impacts we are seeing now and those that are yet to come.”<sup>17</sup> It is important to treat this resource with the consideration it deserves as we may be speaking of “blue jobs” in the same tone that we speak of “green jobs” today. Compared with many states Illinois has abundant water resources and several options in planning for its future needs.

## Conclusion

A global committee co-chaired by new U.S. Secretary of Energy Steven Chu postulated that any solution to the world’s energy problems must be a global solution<sup>18</sup>. That means that the United States, for example, can not solve this problem by itself, but the countries of the world must work together so that every part of the globe does their part to conserve and sustain energy resources. Different sectors of the globe (and within the United States) will likely utilize different sets of resources to solve their problems because every region has its own set of resources and an optimal solution would have energy produced and consumed at the local level.

A comprehensive energy plan for Illinois should include clean energy sources as well as the utilization of methods that make everyday life more energy efficient. Illinois has the potential to be a leader in many energy categories, especially in the biofuels and clean-coal technology industries. A movement to invest in these technologies within the state may create more future economic opportunities by allowing for the exportation of successful technologies to other parts of the globe.

A commitment to a clean energy strategy by the state of Illinois would create many “green jobs.” These green jobs could involve reducing the use of fossil fuels, decreasing pollution and greenhouse gas emissions, increasing the efficiency of energy usage, recycling materials, and developing and adopting renewable sources of energy.

Some jobs are directly green (carbon trader, for example) while others are indirect, such as working as an accountant at a company that constructs energy-efficient houses. Some occupations will increase in demand, change, or evolve because of the green economy’s needs. Green occupations could be separated into 3 categories<sup>19</sup>

### Increased Demand Green

**Occupations:** increase in the employment demand for an existing occupation with few significant changes in tasks and worker requirements

- Geological and Petroleum Technicians
- Locomotive Engineers
- Architectural Drafters
- Chemists
- Natural Science Managers
- Agricultural Inspectors

### Enhanced Skills Green

**Occupations:** significant changes in work and worker requirements where tasks, skills, knowledge, and credentials have changed; may or may not result in an increase in employment demand for the

- Power Plant Operators
- Electrical Engineers
- Heating and Air Conditioner Mechanics and Installers
- Roofers
- Nuclear Engineers
- Construction Managers
- Farmers and Ranchers
- Hazardous Materials Handlers

### New & Emerging Green

**Occupations:** green economy activities and technologies can create unique work and worker requirements, which result in a new occupation title

- Logistic Engineers
- Fuel Cell Engineers
- Energy Auditors
- Precision Agriculture Technicians
- Photonics Engineers
- Manufacturing Engineering Technologists
- Wind Turbine or Wind Farm Engineers
- Wind Turbine Service Technicians
- Biofuels Plant Operators
- Solar Power Plant Technicians
- Solar Sales Representatives/Assessors
- Weatherization Technicians/Installers
- Carbon Credit Traders

Education relating to the green economy is rapidly expanding; check the Career Information System (CIS) at <http://www.ILWorkInfo.com/icrn> in Programs of Study to find whether courses and training programs are available in your area. For more on green job and education resources, see Green Jobs (<http://www.ilworkinfo.com/PDF/grnjbs.pdf>) under the Recommended Links section of CIS.

Basic academic and workplace skills are the foundation for green jobs. To that, add traditional job-specific and industry skills, then an additional layer of green job-specific skills, knowledge and credentials. Illinois has several certificate and associate’s degree programs related to alternative energy production plus a four-year degree in Renewable Energy:

### Renewable/Sustainable Energy Technologies:

- Black Hawk - Sustainable Energy certificate
- Sauk Valley - Basic and Advanced Wind Energy certificates
- Wilbur Wright - Building Energy Technology certificate
- Carl Sandburg - Renewable Energy Technologies certificate
- Illinois State - Renewable Energy bachelor’s degree

### Bio-fuel Technologies:

- Richland - Biofuel Control System Technology associate’s degree, Bioprocess Operator certificate, and Biofuels Technician certificate

### Maintenance Technologies

- Highland - Wind Turbine Technology certificate and associate’s degree

In addition, classes and workshops are offered through community education, environmental action groups, and professional associations. Nationally, some colleges and universities have online programs and degrees.

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# Labor Market Assessment of Disaster Areas: A Case Study of the Chicago River Flood

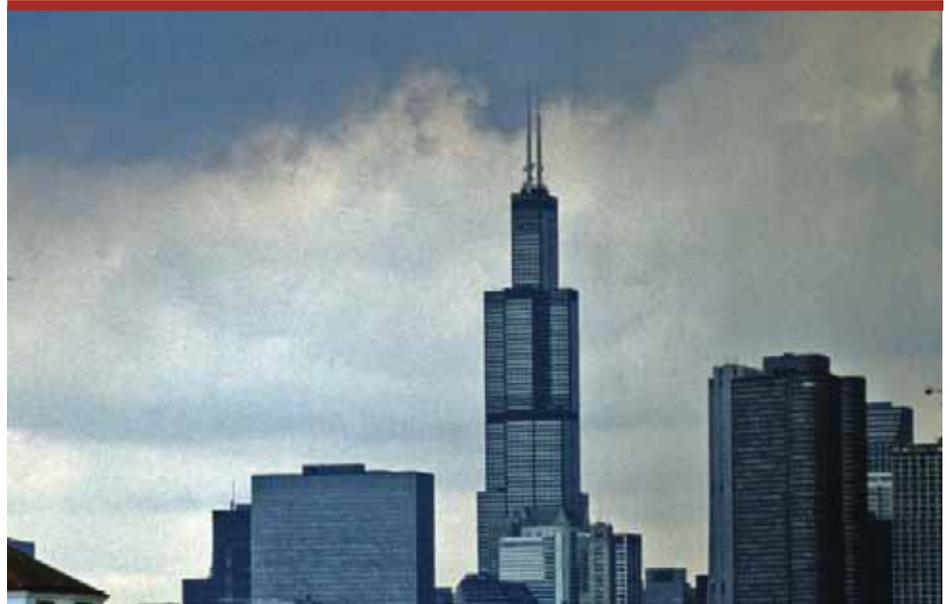
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On September 15, 2008, the Severe Weather Forecast Office of the National Oceanic and Atmospheric Administration (NOAA) issued the following release, “September 13th to 14th Flood Event”:

*A tropical air mass...across northern Illinois and northwest Indiana...led to a large portion of the region ending up with substantial flooding... The 6.64 inches of rain that fell at O’Hare International Airport on the 13th established a new all time record calendar day rainfall for Chicago, where records date back to 1871.*

Local radio broadcasts reported that the north branch of the Chicago River, flowing through Chicago’s Albany Park and North Park neighborhoods, rose from its normal depth of 2 feet to over 6 feet. John Brooks, the city’s Fire Commissioner, stated that nearly 350 homes were affected, and at least 40 residents were evacuated by boat. A local private college closed several dormitories and reduced its class schedule for a couple of days.

Largely ignored in the press coverage was the potential impact of flooding on the local labor market. In fact, a number of critical questions surrounding the labor market impact of natural disasters



*The 6.64 inches of rain that fell at O’Hare International Airport on September 13th, 2008 established a new all time record calendar day rainfall for Chicago, where records date back to 1871.*

merit close consideration, yet are typically ignored in disaster assessment.

- What is the commutation pattern of workers in the area?
- What is the age of workers in the area?
- What is the earnings of workers in the area?
- What industries are located in the area?
- How many jobs does each industry provide?

The utility of traditional sources of labor market information for disaster assessment is severely

limited. First, this information has been generally available only for larger geographic configurations, such as metropolitan areas or counties. Not surprisingly, natural disasters are often not circumscribed by these geographies. Indeed, the north branch of the Chicago River is a border between two Chicago neighborhoods, Albany Park and North Park. Second, labor market information is published in compliance with state and federal mandates on confidentiality, and the release of information for detailed geographies has been prohibited to prevent the identification of individuals and businesses.

The states and the U.S. Census Bureau formed a partnership about ten years ago, named Local Employment Dynamics (LED), to develop innovative statistical products for the study of workers and businesses in labor markets. One of these products is OnTheMap (OTM), a Web-based application featuring unprecedented flexibility to generate local labor market information. OTM is based on aggregations of study areas from census blocks, the smallest geographical area for which the Census Bureau tabulates census data. Areas aggregated from census blocks can be made to closely correspond to disaster areas.

OTM data are processed to ensure that the underlying microdata remain confidential. A unique disclosure proofing technique is applied, that affords confidentiality protections which make it possible to release detailed labor market information, because the identity of individuals or businesses cannot be detected.

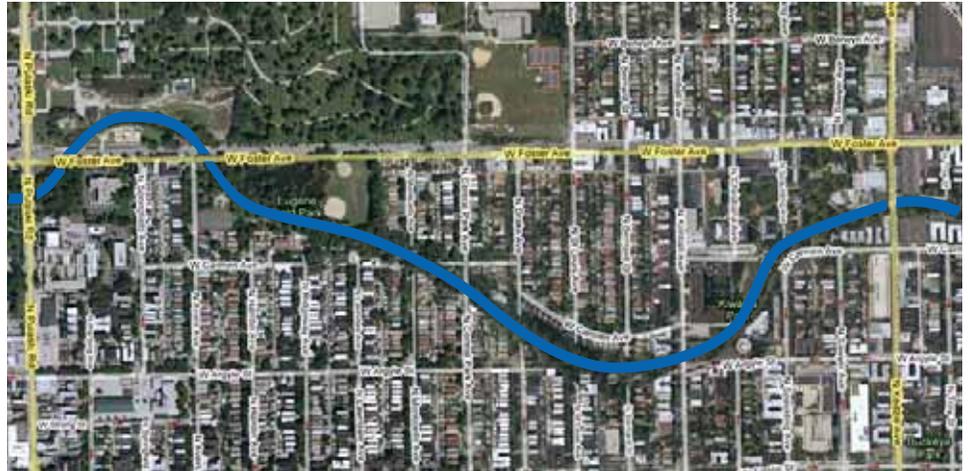
This article describes how the Economic Information and Analysis (EI&A) Division used OnTheMap to assess the potential impact of the aforementioned flooding on that area's labor market. These techniques can be and in fact have been used for other kinds of labor market studies involving ad hoc geographical areas.

We examined the work commutation patterns of workers who reside and/or work in the study area. We also generated information on workers' age and earnings, because the labor market behavior of younger workers differs from older workers, and it also differs between low-

earning and high-earning workers. These differences shape workforce retention/replacement issues faced by employers who have been impacted by a natural disaster. Finally, the

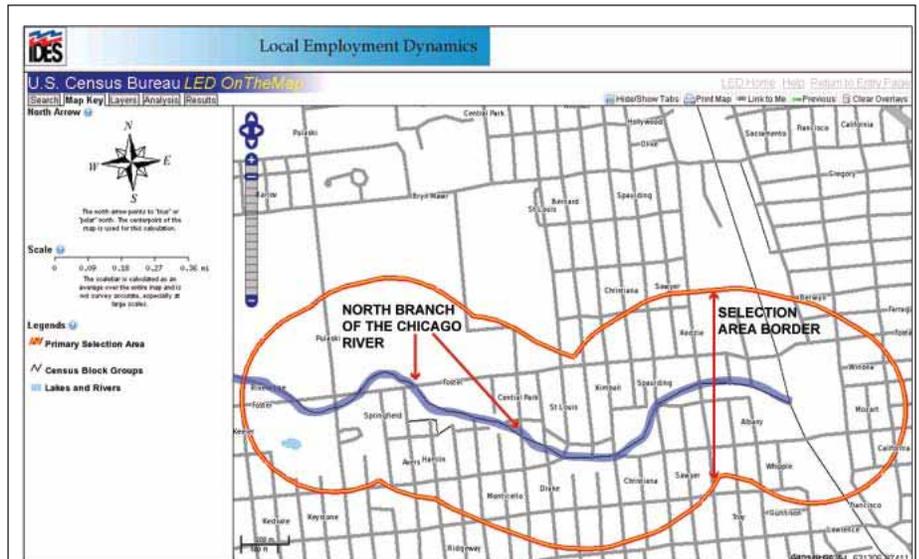
industry structure and employment concentration among industry sectors are critical to understanding the labor market infrastructure of the disaster area.

**Map 1. Part of North Branch of Chicago River.**



*The North Branch of the Chicago River, indicated by the blue line, separates Chicago's North Park (above the river) and Albany Park (below the river) neighborhoods.*

**Map 2. Selection Area.**



*The study area, which is contained in the orange polygon, was defined by tracing part of the North Branch of the Chicago River and selecting a radius of ¼ mile around that segment.*

## Flood Area: Labor Market Characteristics

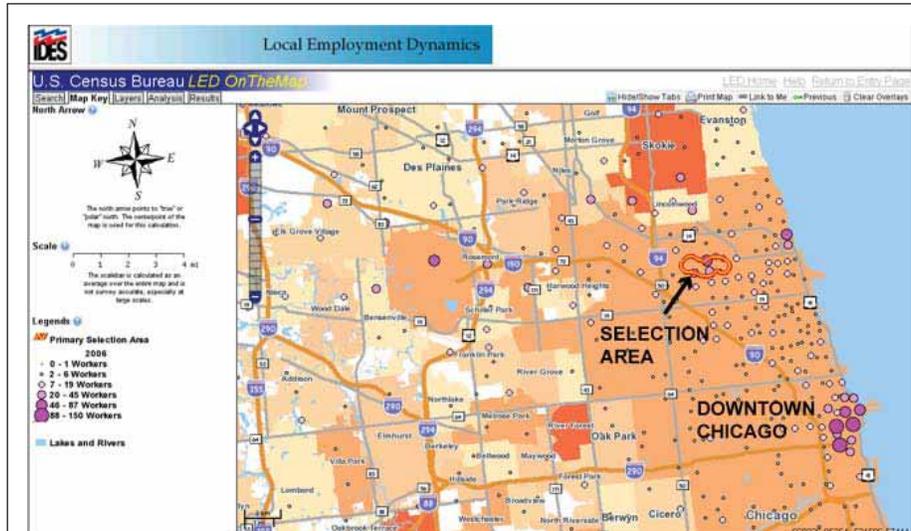
An aerial view of the study area shows a concentration of residences on both sides of the north branch of the Chicago River, as well as larger rooftops along major streets that likely represent commercial businesses (see Map 1, previous page). The North branch of the Chicago River snakes through the area; the arrows point to portions of the river.

Taking advantage of the geographic precision afforded in the OTM application, we produced a map of census blocks in the study area, which is overlaid with streets (see Map 2, previous page). We used a freehand tool provided by OTM to trace the shape of the north branch of the Chicago River, and specified a ¼-mile radius around that shape to yield a ½-mile wide buffer area with the Chicago River positioned in the middle. The ½-mile width was chosen to encompass the flooded area on both sides of the river as reported in official news sources.

The flexibility of OnTheMap is complemented by the comprehensiveness of information it provides on different populations of workers. The reports in this investigation highlighted employed residents of the study area and workers employed in the study area. It is important to consider both populations for the unique breadth they bring to disaster assessment.

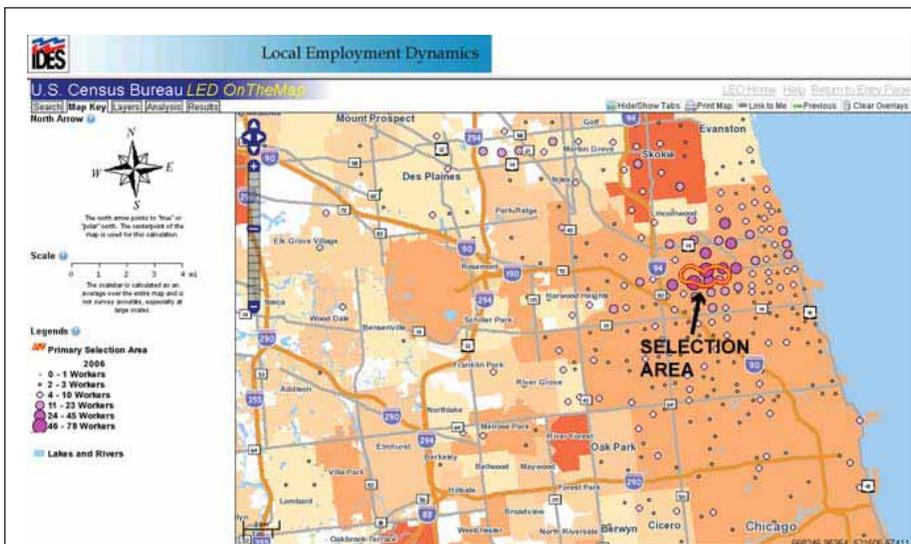
The graphical display in Map 3 depicts the commutation outflows of employed residents in the study area. A large concentration

Map 3. Selection Area Commute Shed.



*The points represent ranges of the numbers of Selection Area residents who work within Census Tracts. Larger and denser points imply higher ranges of resident workers.*

Map 4. Selection Area Labor Shed.



*The points represent ranges of the numbers of Selection Area workers who live within Census Tracts. Larger and denser points imply higher ranges of selection area workers.*

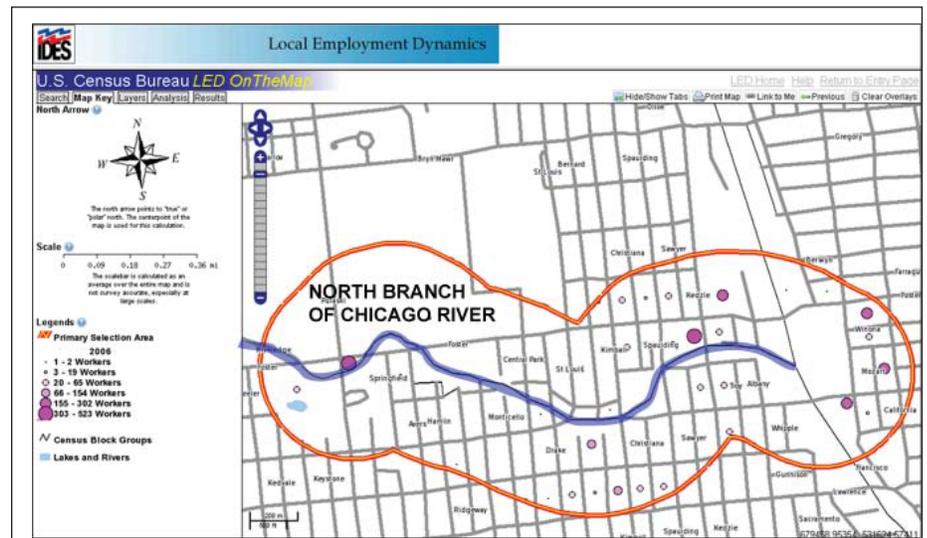
of employed residents works in downtown Chicago. The principal mode of transportation to the workplace from this area is public buses and trains. The former were impeded for a couple of days, but the train routes were not affected.

As shown in Map 4, on the previous page, area workers largely commute from nearby neighborhoods (commutation inflows), especially neighborhoods to the north and east of the flood area. Commutation into the area was disrupted for several days. Several businesses are located within close proximity to the river (see Map 5) and were impacted by the flooding.

OnTheMap produces data tables that accompany and complement the graphical displays. The aforementioned aerial view suggests that the impacted area is mostly residential. In fact, there are 4,159 employed residents in the flood area and 2,495 workers employed in the flood area (see Table 1). In brief, the study area is a net exporter of workers by a ratio of 1.7 to 1. Employed residents are slightly younger (29% are age 30 or younger) and earn slightly more (24% earn \$1,200 per month or less) than those who work in the area (24% and 29%, respectively).

Employed residents work in several industry sectors, although their jobs are more concentrated in Manufacturing than workers employed in the area (13.1% compared to 1.2%). Nearly fifty-five percent of the latter, though, are employed in only two sectors, Educational Services and

**Map 5. Work Area Profile.**



*The points represent ranges of the numbers of selection area workers employed within each Census Block Group. Note the proximity of business locations to the river.*

**Table 1. Flood Area Labor Market Characteristics**

	Employed Residents		Workers Employed	
	Count	Share	Count	Share
<b>Total Private Primary Jobs</b>	<b>4,159</b>	<b>100.00%</b>	<b>2,495</b>	<b>100.00%</b>
<b>Jobs by Worker Age</b>				
Age 30 or younger	1,212	29.10%	591	23.70%
Age 31 to 54	2,284	54.90%	1,367	54.80%
Age 55 or older	663	15.90%	537	21.50%
<b>Jobs by Earnings Paid</b>				
<b>\$1,200 per month or less</b>	<b>1,001</b>	<b>24.10%</b>	<b>715</b>	<b>28.70%</b>
\$1,201 to \$3,400 per month	2,024	48.70%	1,104	44.20%
More than \$3,400 per month	1,134	27.30%	676	27.10%
<b>Jobs by Industry Type (2-digit NAICS)</b>				
Agriculture, Forestry, Fishing and Hunting	6	0.10%	0	0.00%
Mining, Quarrying, and Oil and Gas Extraction	3	0.10%	0	0.00%
Utilities	2	0.00%	0	0.00%
Construction	155	3.70%	10	0.40%
<b>Manufacturing</b>	<b>546</b>	<b>13.10%</b>	<b>29</b>	<b>1.20%</b>
Wholesale Trade	228	5.50%	32	1.30%
Retail Trade	467	11.20%	130	5.20%
Transportation and Warehousing	128	3.10%	8	0.30%
Information	109	2.60%	28	1.10%
Finance and Insurance	275	6.60%	296	11.90%
Real Estate and Rental and Leasing	104	2.50%	15	0.60%
Professional, Scientific, and Technical Services	348	8.40%	126	5.10%
Management of Companies and Enterprises	69	1.70%	0	0.00%
Admin & Support, Waste Mgmt & Remediation	356	8.60%	38	1.50%
<b>Educational Services</b>	<b>136</b>	<b>3.30%</b>	<b>574</b>	<b>23.00%</b>
<b>Health Care and Social Assistance</b>	<b>565</b>	<b>13.60%</b>	<b>790</b>	<b>31.70%</b>
Arts, Entertainment, and Recreation	70	1.70%	97	3.90%
Accommodation and Food Services	378	9.10%	207	8.30%
Other Services (excluding Public Administration)	214	5.10%	115	4.60%
Public Administration	0	0.00%	0	0.00%

Healthcare, which reflects the dominance of a private college and hospital in the study area.

### Disaster Assessment: Implications of Labor Market Characteristics

The overflow of the north branch of the Chicago River caused flooding in both the Albany Park and North Park neighborhoods. The extent of the damage required the evacuation of approximately forty residents, and the temporary closure of businesses and a private college.

### The overflow of the north branch of the Chicago River caused flooding in both the Albany Park and North Park neighborhoods.

Given the commutation pattern of those who reside in the study area (to work) and those who work in the study area (from home), the latter were likely more impacted by the flooding. Their travel patterns cluster mostly in nearby neighborhoods and surface transportation routes in the impacted area were altered. Residents in these neighborhoods, though, work mostly in downtown Chicago and have multiple access points to public transportation services.

The age and earnings structure of workers becomes a more salient consideration with the severity and duration of the natural disaster. For example, as the impact lingers, younger workers and those with lower earnings are less likely to return to the workplace. These subpopulations of workers are less attached to a particular labor market and are more transient across labor markets. The challenge for employers, then, is remediation of workforce retention and recruitment. In this case study, however, the severity and duration was somewhat limited and did not trigger prolonged displacement in the local labor market.

More than one-half of all workers in the study area are employed in two sectors, Educational Services and Healthcare. The dominant firms in these industries are located in close proximity to the Chicago River,

the source of the flooding. These industries experienced only partial disruption, but the analysis certainly highlighted the vulnerability of the local area's economy to a more severe flooding incident.

In fact, one primary objective of this report is to set forth an analytical framework for the use of OnTheMap in discerning the labor market impact of natural disasters. We identified five key questions on commutation, worker age, worker earnings, industry structure, and employment concentration, the answers to which provide a rich perspective on local labor markets.

OTM has the flexibility and statistical robustness that is needed to generate this information for local areas defined by aggregations of census blocks. The power of OTM for disaster assessment is that it opens a niche specific to labor market considerations.



*More than one-half of all workers in the study area are employed in two sectors, Educational Services and Healthcare.*

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# References

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## One Source

<http://www.ILWorkInfo.com>

Portal page for Web sites hosted by the Illinois Department of Employment Security (IDES), Economic Information and Analysis (EI&A) Division. Major sections of One Source include:

### LMI Source

<http://lmi.ides.state.il.us> – Contains complete labor market reports, data and publications that can be viewed online or saved on your computer, including employment outlook; occupational wages; unemployment statistics; and brochures such as Learn More Earn More and the 16 Guides to Career Choices.

### Workforce Info Center

<http://illinois.virtuallmi.com> – Has current and historical workforce and occupational information for employers, job seekers, local workforce planning boards, and economic development professionals.

### Illinois Career Resource Network

<http://www.ilworkinfo.com/icrn.htm> – Offers a variety of career exploration products for elementary, middle, high school and college students as well as adults – it's designed for anyone making career decisions.

## Green Jobs & Resources

<http://www.ilworkinfo.com/PDF/grnjbs.pdf> – Lists sites for green employment including job boards, training programs, and degrees.

## The One Source toll-free phone number

(866) 663-7723. This can be used to get assistance with ordering publications and finding data on the EI&A Web sites.

## Bureau of Labor Statistics

<http://stats.bls.gov> – Contains national data and technical references for many of the programs operated at the state level by IDES EI&A.

## Career One Stop

<http://www.careeronestop.com> is the national site for locating One-Stop Career Centers, such as Illinois workNet <http://www.illinoisworknet.com>, to access job search and retraining information.

## IDES Labor Market Economists

The following page shows a map of the 10 Economic Development Regions (EDRs) and the Labor Market Economists (LMEs) responsible for each of the areas. Contact information is provided for each of the LMEs who can provide assistance on sub-state areas.

# IDES Labor Market Economists for Economic Development Regions

