



The Illinois Labor Market Review

Your Source For Illinois Labor Market Information

**Powering
Tomorrow's
Economy
Efficiently
With Today's
Technology**

**The Pink Side of
Green**

**Southern
Illinois Corridor
Prepared for
Growth**

**State of Illinois
Enhances
Services to
Unemployed
Workers**



Illinois Labor Market Review

March 2010

Table of Contents

1	Powering Tomorrow's Economy Efficiently With Today's Technology
6	The Pink Side of Green
9	Southern Illinois Corridor Prepared for Growth
14	State of Illinois Enhances Services to Unemployed Workers

Produced by
Illinois Department of Employment Security
Economic Information and Analysis Division,
Evelina Tainer Loescher, Ph.D., Manager

View our Labor Market
 Information online at
www.ILWorkInfo.com

Contact: des.lmi@illinois.gov

Note: The information contained in this publication is subject to change without notice. For the latest information visit the IDES Web site at www.ides.state.il.us.

Powering Tomorrow's Economy Efficiently With Today's Technology

by Dave Bieneman, Ph.D.

The efficient utilization of energy is a critical component of the future economy. Two primary methods for improving energy efficiency in the United States are (1) the development of the "smart grid" concept and (2) the construction and renovation of buildings so that they utilize less energy in their operation. Both of these methods are receiving stimulus funding support from the federal government and could take a leading role in the transformation of the national economy. Tens of thousands of jobs could be created for the country within the smart grid and construction and renovation of buildings industry sectors, many of them requiring skilled professionals and paying good wages.

Significance of smart grid

The basic premise of the smart grid is to modernize America's electrical system with the intent to provide infrastructure that will encourage growth in renewable energy sources, empower consumers to reduce their energy use and lay the foundation for sustained, long-term economic expansion. U.S. Energy Secretary Steven Chu said "America cannot build a 21st Century energy economy with a mid-20th Century electricity system."¹ Emphasizing the electric power industry's importance to the country's future, the federal government has made \$100 million in stimulus funding available to support workforce training for the industry.

Many people have probably heard the term smart grid by now, but perhaps few have a good understanding of its significance. The scope of the project is similar to the Interstate Highway System plan authorized by President Dwight D. Eisenhower in 1956 because of its

size, its projected large impact on the country's commerce and its framing on a national development plan that will likely take decades to become fully operational.

"America cannot build a 21st Century energy economy with a mid-20th Century electricity system."

--U.S. Energy Secretary Steven Chu

Eisenhower considered the Interstate Highway System to be a key component of the country's national security as it would provide a network of good roads to allow the military to move quickly around the country in cases of national emergency. The smart grid is also considered to be critical to the national security strategy. A 2009 report produced by the CNA Military Advisory Board (comprised of some of the nation's most respected retired admirals and generals) found that the nation's fragile electricity grid posed a significant security threat to the country as a whole and the military in particular. "A fragile domestic electricity grid makes our domestic military installations, and their critical infrastructure, unnecessarily vulnerable to incident, whether deliberate or accidental," the board stated in its report.²

Smart grid reduces inefficiencies

The current electrical grid was built using design principles in practice more than a century ago. Two primary inefficiencies in the current grid are the one-way flow of electricity from the power plant to the consumer and the little feedback provided to the power company that runs the system or to the consumer.³

The smart grid design intends to accomplish the following: (1) modernize interstate transmission networks with extra-high voltage (EHV) capability, allowing for the integration of renewable energy resources (such as geothermal, solar, wind) that may be located in remote areas; (2) incorporate digital communication technologies to reduce vulnerability to cyber attack and cascading power outages; (3) efficiently utilize electricity by directing it to where it is needed, while integrating multiple renewable power sources and smaller power plants that are more locally sited; and (4) utilize smart meters and two-way communication to dramatically improve automated demand management and electric grid control, saving consumers and businesses billions of dollars per year on their electricity bills.⁴

The nation's electrical system has been very reliable but power outages and interruptions still cost the country at least \$150 billion each year. Electric utilities in areas that operate under older technology generally become aware of a power outage when customers call to report it. Power outages increased by 41 percent in the five-year period of 1996 to 2000 compared to the period of 1991 to 1995, affecting 15 percent more consumers overall.⁵ The 2003 blackout in Canada and the Northeast region of the United States caused an estimated \$7 billion to \$10 billion in economic losses. The reliability of the grid is decreasing with each passing year.

A modern distribution system is expected to reduce electrical energy consumption by 5 to

10 percent, carbon dioxide emissions by 13 to 25 percent, and the cost of power-related disturbances to business by 87 percent. State-of-the-art high-capacity transmission lines carry as much electricity as six standard lines at



Workers at the Illinois Institute of Technology in Chicago construct a “smart microgrid,” which is a small-scale version of an efficient, centralized electrical system. Called the Perfect Power System, the microgrid at IIT will eliminate costly power outages, minimize power disturbances, moderate the growing demand for electricity and curb greenhouse gas emissions. IIT is working with the Galvin Energy Initiative and the U.S. Department of Energy to develop the smart microgrid. The project is scheduled for completion in 2013.

Photo provided by IIT

one-third the cost, use 25 percent less land, and have one-tenth the line power losses.⁶

A proposal to build a transmission link (Tres Amigas superstation) on the eastern border of New Mexico would connect the nation's three major electricity grids – the Eastern Interconnection (roughly east of the Rocky Mountains), the Western Electricity Coordinating Council (roughly west of the Rocky Mountains), and the Electric Reliability Council of Texas or ERCOT (most of Texas)

– improving connectivity between the grids and allowing surplus power to pass between them. One benefit of this proposed structure is that it could enable the building of power plants that are closer to coal mines, such as in Wyoming, and reduce the shipping of coal to power plants closer to population centers.⁷ The connection would also increase demand for electricity generated by renewable energy sources located in one area of the country but needed in a different area.

Smart grid implementation

The smart grid will be completed in phases with some parts becoming operational long before others. Smart meters will become standard for residential and commercial customers. The meters will enable the customers' electric equipment to “talk” to the utility company and provide customers an opportunity to consume electricity in low-demand periods when the cost of power is low.

Reconstruction of some transmission corridors and new construction of others will be necessary. Digital electrical hardware will replace analog equipment, allowing for the integration of advanced communications and cyber infrastructure to make energy transmission and distribution more efficient. This, in turn, will reduce costs and better allocate energy resources. According to Ilesanmi Adesida, Dean of the College of Engineering at the University of

Illinois, the cyber infrastructure is key to the successful implementation of the smart grid. “Ultimately, the extent to which the smart grid vision is achieved is going to depend on how functional and robust the cyber infrastructure is,” Adesida said.⁸

Utilities will receive instant feedback on power outages, allowing them to adjust the flow of power around problem areas using an updated network structure. The power company could easily integrate wind and solar energy with

In-demand Occupations Related to Energy Efficiency

Smart Grid-Related Jobs:

- **database administrators**
- **system and network specialists**
- **programmers**
- **cyber security-related workers**
- **electrical (power) engineers**
- **civil engineers**
- **electronics engineers**
- **operating engineers**
- **electrical workers**
- **telecommunications, equipment installers**
- **construction workers**

Building Construction Jobs:

- **architects**
- **landscape architects**
- **construction workers**
- **landscaping workers**
- **energy auditors**
- **weatherization contractors**

Source: Illinois Department of Employment Security, Economic Information and Analysis Division

electricity from coal-burning power plants and automatically adjust customer power usage based on prearranged agreements.⁹

The federal government has made initial funding available for the installation of smart meters in homes, the automation of utility substations and the installation of thousands of new digital transformers and grid sensors.¹⁰ The grants are expected to speed the transformation of the power grid from a largely electromechanical system into a digital network that gives utilities more efficient ways to send electricity to customers. Smart meters would allow utilities to monitor usage almost in real time. Residential customers would be able to view detailed bills on the Internet so that they know what portion of their electricity bill is attributable to each electricity user in their residence.¹¹

In-demand occupations related to the smart grid include: database administrators, system and network specialists, programmers, cyber security-related workers, electrical (power) engineers, civil engineers, electronics

engineers, operating engineers, electrical workers, telecommunications equipment installers and construction workers.¹²

Construction and renovation of residential and non-residential buildings

Perhaps the electrical power with the most value is the power that does not need to be generated. The U.S. Department of Energy reports data showing that the average American family spends approximately \$2,000 a year on home energy bills, with one-quarter to one-third of that energy wasted via air leaks through windows, ducts and poor insulation, and older appliances using too much power.¹²

Conserving electrical energy would not only save consumers money, but it would also benefit the environment, according to a recent Wall Street Journal article:

“Most studies suggest energy efficiency is the cheapest way to limit carbon emissions

by slowing the growth of fossil fuels for energy use. A report by McKinsey & Co. concluded that the United States could cut its energy use 23 percent below the projected national demand level in 2020 by boosting efficiency, and save \$1.2 trillion in energy costs.”¹³

The momentum for utilizing energy more efficiently is building on a national scale. Illinois received \$97 million from the federal government in the summer of 2009 for free weatherization upgrades to the homes of low-income (up to twice the federal poverty level) families.¹⁴ Recent changes to local, state, and federal laws have inspired municipal governments across the country to launch programs that help residents purchase efficient furnaces, weatherize their homes and put solar panels on their roofs. The programs provide incentives for homeowners by helping to spread the costs over a decade or more. They create jobs and help the environment; and the payments on the low-interest loans are often less than the amount the homeowner saves in utility bills.¹⁵

Other savings may be available to consumers who embrace energy efficiency. Mortgage lenders are offering deals, such as lower closing costs, to people who borrow money to make their homes more efficient. Potential energy savings may be factored into qualifying income allowing people to borrow more money for a residence.¹⁶

Non-residential buildings are also being modified, or built, to conserve energy.

The federal government has allocated \$5.5 billion in stimulus funds to make governmental buildings more energy efficient. Advocates of green buildings hope that the federal government can use its purchasing power to lower costs, test emerging products and educate the industry.¹⁷

Energy efficiency in new construction

The new construction sector is taking advantage of energy efficient technologies. The National Renewable Energy Laboratory is currently building an office building in Denver that will operate entirely on its own with no external power source. A solar array built on the campus will cover all its energy needs provided the building stays within its energy limits.¹⁸

The Las Vegas Strip has added a multi-resort laundry facility that cuts water use by 30 percent – despite a 40 percent increase in capacity – and a five-megawatt cogeneration plant at one hotel that generates enough electricity to power one of its two towers. Its new CityCenter development features a cogeneration plant that will provide 10 percent of its electricity needs while using the waste heat to warm the resort’s water supply. Low-flow fixtures cut indoor water usage almost in half, and glass and sunshades let in light but deflect the summer heat.¹⁹

In Chicago, a building renovation project planned for the Willis Tower (previously known as the Sears Tower) includes the replacement of 16,000 windows and the

automation of lighting systems. The energy bill for heating is expected to be cut in half and a new plumbing system will reduce water usage by 24 million gallons a year. Sara Beardsley, the senior architect on the Willis Tower project, stated in a Chicago Tribune article that if the 10 largest buildings in the Chicago Loop were targeted for similar greening projects, it would reduce the energy needs of the Loop by more than 10 percent. “In particular, mid-century buildings can average as much as double

difference felt standing in an asphalt parking lot as compared to a tree-shaded park on a hot summer day. Dark surfaces such as rooftops and pavement absorb and radiate heat, raising temperatures as much as 6 to 10 degrees Fahrenheit. A high concentration of dark surfaces can raise air temperature in an area because the surfaces trap heat. The higher temperatures then create more smog since pollution is magnified when chemicals in the air react with heat and sunlight.



A building renovation project planned for the Willis Tower, formerly called the Sears Tower, in Chicago involves the replacement of 16,000 windows and the automation of lighting systems.

Photo courtesy of the Willis Tower

the energy load of modern buildings and 10 times that of the newest, most energy-efficient buildings,” Beardsley stated.²⁰

The Empire State Building in New York City is spending \$20 million for energy-efficiency upgrades, including the installation of 6,500 gas-filled windows that let in the same amount of light as double-pane windows but retain heat better during the winter. The upgrades should allow the building to cut its energy use by 38 percent annually. The improvements decreased by \$7 million the amount budgeted for cooling equipment that they were planning to replace. The difference of \$13 million will be paid for in three years through energy savings from the project.^{21,22}

Green roofs have been used in Chicago in an effort to counter the Urban Heat Island Effect which pertains to the temperature

The solution to reducing the Urban Heat Island Effect is to reduce the total area of dark, heat-absorbing surfaces. Placing vegetation on a roof allows plants to reflect heat, provide shade and cool the surrounding air. This cuts the energy use within the building, especially for cooling. The garden provides insulation that helps conserve energy while absorbing rainfall, reducing urban runoff and improving air quality by converting excess carbon dioxide to oxygen. The layers of a rooftop garden protect the constructed roof from damage and can extend both the warranty and the useful life of the roof.²³ The positive impact is demonstrated

by the temperature difference of at least 50 degrees Fahrenheit that exists between the green roof of Chicago’s City Hall and the black tar roof of the Cook County building on a hot summer day.²⁴

In-demand occupations that are related to making buildings more energy efficient include – architects, landscape architects, construction workers, landscaping workers, energy auditors, and weatherization contractors.

Development of the smart grid would clearly increase the growth potential of the national economy. New industries would rise, creating many jobs that pay well and employing a large proportion of skilled workers. The federal government needs to lead the way with an infrastructure investment of this size. The National Institute of Standards and Technology has recently worked with interested parties to

develop standards for a new national grid as one step in that direction.

The main obstacle is determining who is responsible for paying for the project. The federal government can supply some seed money but the majority of the financing will likely come from increases in electric utility rates in the short term. Some would argue that the country cannot afford an investment of this size at this time. A counter argument in support of the smart grid is that it is an investment in the nation's critical infrastructure and has a high probability of expanding the country's economic growth potential.

One good example of an investment on a smaller scale is the renovation of the campus

electrical grid at the Illinois Institute of Technology (IIT) in Chicago. IIT is working with the Galvin Energy Initiative and the U.S. Department of Energy to develop a Perfect Power system on the IIT main campus that is expected to be completed in 2013. The five-year plan will be conducted in four phases: (1) efficiency improvements of the current electrical system, (2) modification of the existing on-campus power plant as well as the addition of new renewable generating resources, (3) development of a high reliability distribution system that will isolate power faults and reroute power around problem areas, and (4) provision of uninterrupted power supplies, including power from on-campus solar panels, along with a metering infrastructure that allows for demand response. The cost savings generated by this

"microgrid" project are expected to pay for the renovation in five years.²⁵

Energy efficiency methods applied to residential and non-residential construction generally pay for themselves. The smart grid and the use of energy efficiency methods could lead to a lesser demand in the future for large power plants, which currently are funded through increases in utility rates. It could be argued that the total capital investment would be much smaller by investing in smart grid technologies sooner rather than later to reduce the number of future power plants needed for energy growth and as replacements for older power plants.

Dave Bieneman is IDES' Manager of Economic Analysis.

Notes

¹ U.S. Department of Energy, "Secretary Chu Presents Smart Grid Vision and Announces \$144 Million in Recovery Act Funding to Transition to the Smart Grid," news release, August 30, 2009, <http://www.energy.gov/news2009/8030.htm>.

² CNA Analysis & Solutions, *Powering America's Defense: Energy and the Risks to National Security, Roadmap for Energy Security*, May, 2009, <http://www.cna.org/documents/PoweringAmericasDefense.pdf>.

³ H. Josef Hebert, "'Smart grid' – buzz of the power industry," Associated Press, June 8, 2009, <http://www.msnbc.msn.com/id/31130855/>.

⁴ Energy Future Coalition, *The National Clean Energy Smart Grid: An Economic, Environmental, and National Security Imperative*, <http://www.energyfuturecoalition.org>.

⁵ U.S. Department of Energy, *The Smart Grid: An Introduction*, 2008, [http://www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages\(1\).pdf](http://www.oe.energy.gov/DocumentsandMedia/DOE_SG_Book_Single_Pages(1).pdf).

⁶ Energy Future Coalition, *National Clean Energy Smart Grid Facts*, http://www.energyfuturecoalition.org/files/webfmuploads/Smart%20Grid%20Docs/Smart_Grid_Fact_Sheet.pdf.

⁷ Rebecca Smith, "Drive to Link Wind, Solar Power to Distant Users," *Wall Street Journal*, October 13, 2009.

⁸ University of Illinois' Information Trust Institute, "U.S. Departments of Energy and Homeland Security Establish Major Resilient Smart Grid Program at the University of Illinois," news release, October 26, 2009, <http://www.iti.illinois.edu/news/press-releases/us-departments-energy-and-homeland-security-establish-major-resilient-smart-grid>.

⁹ See note 3 above.

¹⁰ "Obama putting \$3.4B toward a 'smart grid,'" Associated Press, October 27, 2009, http://www.msnbc.msn.com/id/33491413/ns/politics-white_house/.

¹¹ Rebecca Smith and Ben Worthen, "Stimulus Funds Speed Transformation Toward 'Smart Grid,'" *Wall Street Journal*, September 28, 2009.

¹² Jim Tankersley, "Seeing green in energy efficiency," *Chicago Tribune*, March 23, 2009.

¹³ Jeffrey Ball, "The Homely Costs of Energy Conservation," *Wall Street Journal*, August 7, 2009.

¹⁴ James Janega and David Ingold, "Stimulus hits home: State gets \$97 million to weatherize homes," *Chicago Tribune*, September 28, 2009, <http://archives.chicagotribune.com/2009/sep/28/news/chi-weatherize-main-28-sep28>.

¹⁵ Noah Buhayer, "Home-Energy Plan Spreads Out Costs," *Wall Street Journal*, August 19, 2009.

¹⁶ Anna Prior, "Green for Green," *Wall Street Journal*, August 24, 2009.

¹⁷ Christina S.N. Lewis, "Green Builders Awaiting the Green," *Wall Street Journal*, December 16, 2009.

¹⁸ Stephanie Simon, "In Search of Net Zero," *Wall Street Journal*, December 7, 2009.

¹⁹ Rob Lovitt, "Greening the Las Vegas Strip," *MSNBC.com*, November 17, 2009, <http://www.msnbc.msn.com/id/33973218/ns/travel-seasonal/>.

²⁰ Julie Wernau, "The greening of Willis Tower," *Chicago Tribune*, November 1, 2009.

²¹ Kate Zhao, "Johnson Controls Gets High-Rise Window Work," *Wall Street Journal*, August 5, 2009.

²² Noah Buhayar, "Old Wine, New Bottles," *Wall Street Journal*, September 21, 2009.

²³ City of Chicago Department of Environment, *A Guide to Rooftop Gardening*, http://egov.cityofchicago.org/webportal/COCWebPortal/COC_ATTACH/GuidetoRooftopGardening_v2.pdf.

²⁴ City of Chicago Department of Environment, *Monitoring the Rooftop Garden's Benefits*, <http://egov.cityofchicago.org/city/webportal/home.do>.

²⁵ Marcia Faye, "New Grid in Town: Perfect Power System Ramps up IIT," *IIT Magazine*, Illinois Institute of Technology, Spring 2009.

The Pink Side of Green

Preparing Women for the Green Economy

by Lola Lucas

Think of green jobs and the image of a guy in a yellow hard hat might spring to mind. That wouldn't be far off, either, since many new and emerging green occupations are in areas that have traditionally been male-dominated, such as construction, energy, transportation and agriculture. And since females are still underrepresented in science, technology, engineering and math classes, few women are in the pipeline for emerging green jobs requiring design or technical skills.

Currently, nearly 60 percent of all low-wage workers in Illinois are women, although females make up only 46 percent of the state's workforce (see Table 1 below). Of the top 11 female-dominated occupations in the United States that employ the largest number of women, four are in office work, three in education, three in healthcare and one in hospitality—not a yellow (or green) hard hat to be found among them. The new green economy presents an opportunity to change such trends.

Although not all green jobs are payday jackpots — think of weatherization technicians — skilled green jobs tend to be high-paying jobs with benefits. Therefore, women are encouraged to think about careers in the green economy and other non-traditional careers (those which employ fewer than 25 percent women) because, simply put, they pay better.

Table 1. Leading Female-dominated* Occupations in the United States 2008
(employment in thousands)

	Total Employed Women	Percent Women	Median Weekly Earnings
Occupations Total (all employed women 16 years and older)	67,876	46.7	**\$638
Secretaries and administrative assistants	3,168	96.1	614
Registered Nurses	2,548	91.7	1,011
Elementary and middle school teachers	2,403	81.2	871
Nursing, psychiatric, and home health aides	1,675	88.7	424
Receptionists and information clerks	1,323	93.6	502
Bookkeeping, accounting, and auditing clerks	1,311	91.4	603
Maids and housekeeping cleaners	1,287	89.7	371
Childcare workers	1,256	95.6	393
Office clerks, general	993	84.4	582
Teacher assistants	936	91.8	413
Personal and home care aides	744	85.4	404

*Women comprise more than 80 percent of the workers in each of these occupations
**The national median weekly wage in 2008 for men was \$798, according to the Current Population Survey.

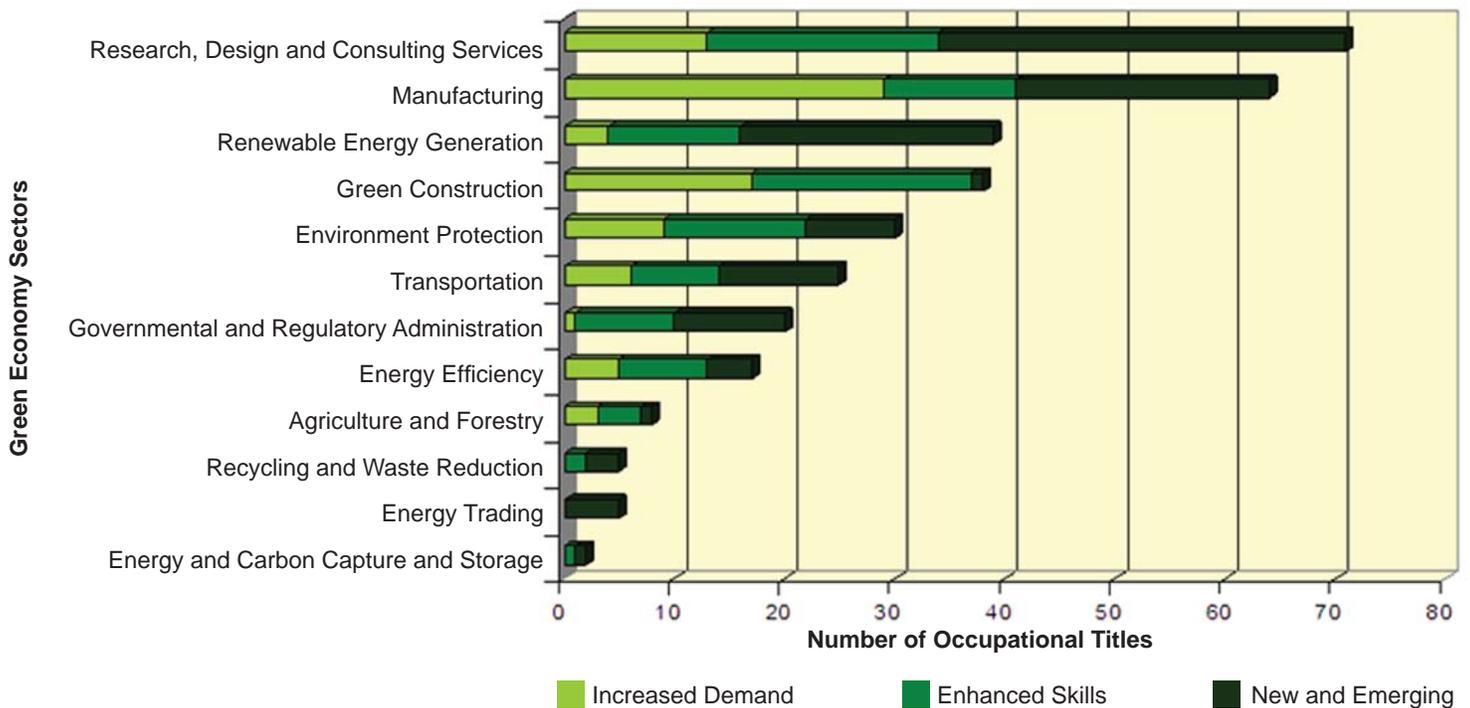
Source: U.S. Department of Bureau of Labor Statistics

Table 2. Some New and Emerging Green Jobs in O*NET

<ul style="list-style-type: none"> ● Chief Sustainability Officers (11-1011.03) ● Green Marketers (11-2011.01) ● Geothermal Production Managers (11-3051.02) ● Biofuels Production Managers (11-3051.03) ● Biomass Production Managers (11-3051.04) ● Methane / Landfill Gas Collection Systems Operators (11-3051.05) ● Hydroelectric Production Managers (11-3051.06) ● Biofuel / Biodiesel Technology and Product Development Managers (11-9041.01) ● Water Resource Specialists (11-9121.02) ● Wind Energy Operations Managers (11-9199.09) ● Wind Energy Project Managers (11-9199.10) ● Brownfield Redevelopment Specialists and Site Managers (11-9199.11) ● Sustainability Specialists (13-1199.10) ● Water / Wastewater Engineers (17-2051.02) ● Wind Energy Engineers (17-2199.10) 	<ul style="list-style-type: none"> ● Solar Energy Systems Engineers (17-2199.11) ● Climate Change Analysts (19-2041.01) ● Environmental Restoration Planners (19-2041.02) ● Industrial Ecologists (19-2041.03) ● Environmental Economists (19-3011.01) ● Solar Sales Representatives and Assessors (41-4011.07) ● Solar Energy Installation Managers (47-1011.03) ● Solar Photovoltaic Installers (47-4099.01) ● Solar Thermal Installers and Technicians (47-4099.02) ● Weatherization Technicians and Installers (47-4099.03) ● Geothermal Technicians (49-9099.01) ● Wind Turbine Service Technicians (49-9099.02) ● Biofuels Processing Technicians (51-8099.01) ● Methane / Landfill Gas Generating System Technicians (51-8099.02) ● Biomass Plant Technicians (51-8099.03) ● Recycling and Reclamation Workers (51-9199.01) ● Recycling Coordinators (53-1021.01) ● Hydroelectric Plant Technicians (51-8099.04)
---	---

Source: Workforce³ One webinar: *Greening the World of Work: Implications for O*NET-SOC and New Emerging Occupations*, <http://www.workforce3one.org>

Table 3. Distribution of Green O*NET-SOC Occupations Across Sectors



Note: This table shows an estimation of green occupational titles that are in increased demand, require enhanced skills or are new and emerging titles in each of the 12 listed sectors. O*NET identifies a total of 215 occupational titles for green jobs. Some occupational titles appear in multiple sectors.

Source: Workforce³ One webinar: *Greening the World of Work: Implications for O*NET-SOC and New Emerging Occupations*, <http://www.workforce3one.org>

Green Jobs Trends

A recent Workforce³One webinar, *Greening the World of Work: Implications for O*NET-SOC and New Emerging Occupations*, showed the O*NET codes for some of the 91 new and emerging occupational titles for green jobs (see Table 2). O*NET, the U.S. Department of Labor's national database of occupational requirements and worker attributes, currently identifies a total 215 occupational titles for green jobs. Table 3 shows that most new green jobs are in industry sectors such as research, design and consulting services, manufacturing and renewable energy generation. Green jobs that are in increased demand are mostly in the manufacturing and green construction industry. Most green jobs requiring enhanced skills are in research, design and consulting services and green construction sectors. Women who enter such fields can, indeed, expect higher earnings in those industries than in traditional career fields. To view the wages of skilled green collar occupations and the percentage of women working in those jobs, see page 4 of a fact sheet from Wider Opportunities for Women's Web site:

<http://www.wowonline.org/publicpolicy/documents/GreenJobsFactSheetJuly2009.pdf>.)

Green Jobs Training Programs

Various organizations are preparing workers for jobs in the green economy. For example, the Business and Professional Women's Foundation is partnering with the Walmart Foundation to provide \$400,000 for training women in skilled green collar jobs. The Chicago Foundation for Women's report on *Creating Opportunity for Low-Income Women in the Green Economy* (<http://www.cfw.org/Document.Doc?id=350>) points out that childcare, transportation and other supports could help make training a reality for women. Returning soldiers, male and female, are entering training with Veterans Green Jobs (www.veteransgreenjobs.org) as they put down rifles and pick up caulking guns.

GreenCorps Chicago trains workers in waste reduction, pollution prevention, community horticulture and sustainable landscaping. The program has recently expanded into home weatherization, electronics recycling, tree

care, and computer recycling. Meanwhile, Community Resource Development and Growing Homes both train people to grow organic food locally on urban farms.

Boone, Cook, and McLean counties recently received a \$6 million grant for retraining in green jobs for low-skilled individuals, new labor market entrants, dislocated workers, incumbent workers, underemployed individuals, veterans, minority contractors, disadvantaged adults and youth, individuals with disabilities and individuals with criminal records. The program will implement projects such as the Greater Rockford Solar Initiative and the Chicago Green Jobs for All Initiative. Together, both initiatives expect to train and place approximately 1,310 participants in energy efficiency occupations. An additional 1,694 people who complete the training programs will earn industry-recognized certificates, such as Building Performance Institute (BPI) building analyst, Residential Energy Services Network (RESNET) certified auditor, and Laborers' International Union of North America (LIUNA) energy auditor.

Helpful Green Job Resources:

- IDES' online resource for green jobs and related information-- <http://www.ILWorkinfo.com/PDF/grnjbs.pdf>.
- Green Equity Toolkit: Standards and Strategies for Advancing Race, Gender and Economic Equality in the Green Economy by Yvonne Yen Liu and Terry Keleher, http://www.arc.org/downloads/Green_Toolkit_112009.pdf.
- The Chicago Foundation for Women's report, *Creating Opportunity for Low-Income Women in the Green Economy* <http://www.cfw.org/Document.Doc?id=350> <http://www.cfw.org/Page.aspx?pid=1140>.
- Green Career Central, <http://www.greencareercentral.com>.

Upcoming Events Related to Green Jobs:

Heartland Conference 2010

Date: April 7-9, 2010

Time: 11:30 am to 5:00 pm

Location: Hyatt Regency Chicago Hotel, Chicago, IL

Description: Region 5 Department of Labor conference (*several sessions on green jobs*)

http://www.theeventconn.com/event/2010_Heartland_Conference

Third Annual Chicago Green Collar Jobs Summit

Date: April 30, 2010

Time: 8 a.m. to 4:30 p.m.

Location: Illinois Institute of Technology

Description: Features presentations on the latest issues and information related to green jobs

http://greencollarchicago.org/?page_id=16

Traditionally female-interest fields with green niches

- marketing
- non-profits
- art
- fashion
- interior design
- wedding planning
- cosmetics
- retail sales
- travel
- meeting planning
- cooking
- food service (such as free-trade coffee shops)
- gardening
- crafts
- entertaining
- public relations
- advertising
- journalism
- real estate

Green Jobs for Women in Traditional Settings

Despite the higher wages of some green jobs, not every woman has her heart set on biodiesel technology, wastewater engineering or landfill gas generating systems. Even so, women are often involved in the green economy because a closer look reveals many eco-friendly aspects in female-dominated occupations.

On Dec. 9, 2008, the *New York Times* ran an opinion piece, “Where Are the New Jobs for Women?” by Linda Hirshman, author of *Get to Work: A Manifesto for Women of the World*. The commentary claimed that the 2.5 million stimulus jobs to be created over two years were tilted to men with experience in

infrastructure repair and energy or emissions, once again leaving women standing alongside the road to recovery. But Hirshman also suggested that green jobs can become more of a reality in the traditional career settings for women:

“Fortunately, jobs for women can be created by concentrating on professions that build the most important infrastructure—human capital ... Women represent almost half the workforce—not exactly a marginal special interest group. By adding jobs in libraries, schools and children’s programs, the new administration can create jobs for them, too.”

Van Jones, founder of Green for All and former “green czar” in the Obama administration, said “The wingspan of green jobs reaches from GED to PhD.” Similarly, women can certainly go green in education jobs from pre-K to post-doctoral work. Those who engage in office work at green companies contribute to a more carbon-neutral world. Healthcare offers innumerable opportunities to reduce waste, pollution and toxic materials.

Some women seek employment in roles such as campus sustainability coordinator or carbon emissions reduction trainer. Other job titles that may be appealing include environmental lawyers, corporate social responsibility directors, electric car marketers, conservationists, brownfield redevelopers, Leadership in Energy and Environmental Design (LEED) consultants and recruiters for green companies. Opportunities will exist in government, insurance and various science-related occupations as well.

Women are more represented in the green economy when the definition is broadened beyond energy efficiency and production. There are rapidly growing green niches in traditionally female-interest fields such as marketing, non-profits, art, fashion, interior design, wedding planning, cosmetics, retail sales, travel, meeting planning, cooking, food service (such as free-trade coffee shops), gardening, crafts, entertaining, public relations, advertising, journalism and real estate. Green opportunities are also developing in blogging, real estate and a variety of other services industries. For

example, Green Irene has franchise businesses for consultants to perform energy audits and check for the safety of cleaning supplies, paint, carpeting and other materials in homes.

Even social services have taken on a green tinge with specialties such as eco-psychology and outdoor adventure programs to reconnect people with nature. Carol McClelland, founder of Green Career Central (<http://www.greencareercentral.com>), offers newsletters, podcasts, books, and training on how to find the right job that also helps the environment. She offers these suggestions for people who want to explore green careers:

- Talk to people in green jobs that match your interests to find out their job functions.
- Build your network of contacts who share your interests and values.
- Take classes on topics related to “green” and “sustainability.”
- Gain experience in the green arena by working on projects, interning or volunteering.

The green movement is touching many traditional industries. Thus, preparing for new jobs in the industry or coming up with new business ideas related to the green industry makes good sense. Eco-chick.com, for example, is a fashion site that features organic makeup, clothing and recycled jewelry. The company’s tagline is “Because Mother Earth Is a Woman.” Closer to home, WomanCraft, Inc. won Mayor Daley’s GreenWorks Award for its handcrafted products.

As for hospitality, who hasn’t seen the notices in hotel rooms about conserving water and energy by reusing sheets and towels instead of having them changed by housekeeping each day? Meanwhile, homemakers of both sexes turn to magazines such as *Better Homes and Gardens* for articles on how to make homes green, from the laundry room to the attic, because saving water and energy are good for the wallet as well as the world.

The green movement presents opportunities for women to not only improve the planet but to also have sustainable incomes for themselves and their families.

Lola Lucas is an IDES Career Resource Specialist.

Southern Illinois Corridor Prepared for Growth

by Dennis Hoffman

The extensive amount of noteworthy economic development and commercial activity along the Interstate 57 and Route 13 corridor in southern Illinois has prepared this region to be in an excellent position to advance forward economically.

The four counties of Jefferson, Franklin, Williamson and Jackson comprise this area. The cities of Carbondale, Marion and Mt. Vernon are experiencing the majority of the growth, but other communities, such as Herrin, Carterville and Murphysboro are also progressing. A close observation of Illinois Department of Employment Security (IDES) and Census Bureau data and recent economic development reveal a steady upward trend for this region. Interstate-57 and the four-lane Route 13 Highway play a dominant role in the economic

and commercial growth of the southern Illinois corridor, which looks like a backwards letter “L” as it runs south from Mt. Vernon to Marion and then west through Carbondale to Murphysboro.



The new Heritage Landing, a senior living facility located at 4260 Heritage Landing in Mt. Vernon, Ill., opened in late 2009.

Photo by Dennis Hoffman

Population

The total population for the four-county area is estimated to have increased by 1.2 percent from 2000 to 2008 (see Table 1), according to the U.S. Census Bureau. The Census Bureau estimated the 1.2 percent population increase

to be primarily in Williamson County, which grew by 2,500 residents. Franklin County is expected to gain some citizens with Jefferson County remaining stable. A moderate decline in population is anticipated for Jackson County. While this estimated increase in population for this area is rather small, most rural southern Illinois counties are experiencing a decline in population.

Table 1: Population

County	Year 2000	Year 2004	Year 2008	2000-2008 Difference	2000-2008 % change
Franklin	39,018	39,159	39,488	470	1.2%
Jackson	59,612	58,691	58,264	-1,348	-2.3%
Jefferson	40,045	40,054	40,083	38	0.1%
Williamson	61,296	63,080	64,628	3,332	5.4%
Totals	201,971	202,988	204,471	2,500	1.2%

Source: U. S. Census Bureau

Table 2: Number of Private Firms

County	First Qtr 2001	First Qtr 2005	First Qtr 2009	2001-2009 Difference	2001-2009 % Change
Franklin	784	739	794	10	1.3%
Jackson	1,271	1,341	1,286	15	1.2%
Jefferson	942	937	941	-1	-0.1%
Williamson	1,387	1,393	1,497	110	7.9%
Totals	4,384	4,410	4,518	134	3.1%

Source: Illinois Department of Employment Security / Economic Information and Analysis Division

Establishment Data

The IDES Quarterly Census of Employment and Wages Report showed that the number of private firms increased by 134 or 3.1 percent from the first quarter of 2001 to the first quarter of 2009 (see Table 2). Williamson County is reporting the largest gain in the number of private businesses with an increase of nearly 8 percent since 2001. Franklin and Jackson Counties experienced modest increases in the number of firms while Jefferson County remained stable.

Employment Statistics

Three of the four counties showed significant employment gains for the past 10 years (see Table 3, next page). An IDES survey of the number of jobs by place of work shows an overall increase of more than 7,700 jobs (+9.7

Table 3: Current Employment Statistics - Employment by County

County	Mar-99	Mar-01	Mar-05	Mar-07	Mar-09	1999-2009 Difference	1999-2009 % Change
Franklin	10,017	10,312	9,841	9,583	8,913	-1,104	-11.0%
Jackson	28,361	31,723	31,771	32,085	30,983	2,622	9.2%
Jefferson	18,840	19,989	20,692	21,872	20,377	1,537	8.2%
Williamson	22,213	23,533	26,089	28,271	26,877	4,664	21.0%
Totals	79,431	85,557	88,393	91,811	87,150	7,719	9.7%

Source: Illinois Department of Employment Security / Economic Information and Analysis Division

Table 4: Current Employment Statistics - Employment by Industry

Southern Illinois Corridor	2009 totals	1999 Totals	1999-2009 Difference	1999-2009 % Change
Total Nonfarm	87,150	79,431	7,719	9.7%
Total Private	60,556	58,397	2,159	3.7%
Goods Producing	10,003	11,640	-1,637	-14.1%
Service-Producing	77,147	67,791	9,356	13.8%
Natural Resources and Mining	772	695	77	11.1%
Construction	2,126	2,427	-301	-12.4%
Manufacturing	7,105	8,518	-1,413	-16.6%
Durables	3,125	4,901	-1,776	-36.2%
Nondurables	3,980	3,617	363	10.0%
Trade, Transportation, and Utilities	17,331	15,332	1,999	13.0%
Wholesale Trade	1,800	1,992	-192	-9.6%
Retail Trade	11,070	10,477	593	5.7%
Transportation, Warehousing, and Utilities	4,461	2,863	1,598	55.8%
Information	1,455	1,940	-485	-25.0%
Financial Activities	3,989	3,219	770	23.9%
Professional and Business Services	4,897	5,898	-1,001	-17.0%
Educational and Health Services	12,062	10,711	1,351	12.6%
Leisure and Hospitality	7,962	7,530	432	5.7%
Other Services	2,857	2,127	730	34.3%
Government	26,594	21,034	5,560	26.4%
Federal Government	2,155	1,970	185	9.4%
State Government	14,281	10,026	4,255	42.4%
Local Government	10,158	9,038	1,120	12.4%

Source: Illinois Department of Employment Security / Economic Information and Analysis Division

percent) from March 1999 to March 2009. Williamson County experienced the largest employment increases (+4,660) with sizable gains also in Jefferson (+1,540) and Jackson (+2,620) counties. Franklin County reported a moderate loss of jobs (-1,100) from 1999 to 2009.

Employment in the four-county region increased by nearly 10 percent (+7,720) during the 10-year period from 1999 to 2009 (Table 4).

Expansions at transportation and warehousing centers (+1,600) were sizable with the interstate highway system being a major factor. Similar to the national trend, substantial employment gains occurred in education-health services (+1,350). The growth in health care has benefited the construction industry as numerous medical facilities have been renovated or expanded or have built new centers. Employment in retail trade (+ 600) and leisure-hospitality (+430) steadily increased. Financial institutions also

have expanded (+770) in this region during the past 10 years. Other services businesses increased payrolls by 730. These services include personal services, such as beauty salons, funeral homes, laundries, pet care and repair, and maintenance services, such as auto, office machine, appliance, and garden equipment repair and maintenance. All three government entities (federal, state and local) added workers from 1999 to 2009 (+5,560).

Commuting Patterns

Commuting along the southern Illinois corridor has caused substantial development in these counties. Although the 2000 Census Commuting Pattern in Illinois report is dated, it provides a view of the tremendous distance that area residents commute for work. In addition, residents also commute to the primary commercial centers for entertainment, recreation, medical care, etc. Since 2000, commuting has increased, as evidenced by local officials' calls for more highway lanes. Traffic has become congested to the point where plans are well underway to add another lane each way

along Route 13, and proposals are being made to add lanes along I-57. This easy access to all the communities along the southern Illinois corridor is spurring economic and commercial development and is attracting new commuters from surrounding counties.

Franklin County is an out-commuting area as more residents commute to other counties for work than commuters come to Franklin County. Both Jackson and Jefferson counties are in-

commuting areas to which nearly twice as many workers commute as compared to the number of residents out-commuting. Although Williamson County has a large number of in-commuters, there are still more residents out-commuting, mostly to Jackson County where Southern Illinois University is located (see Table 5).

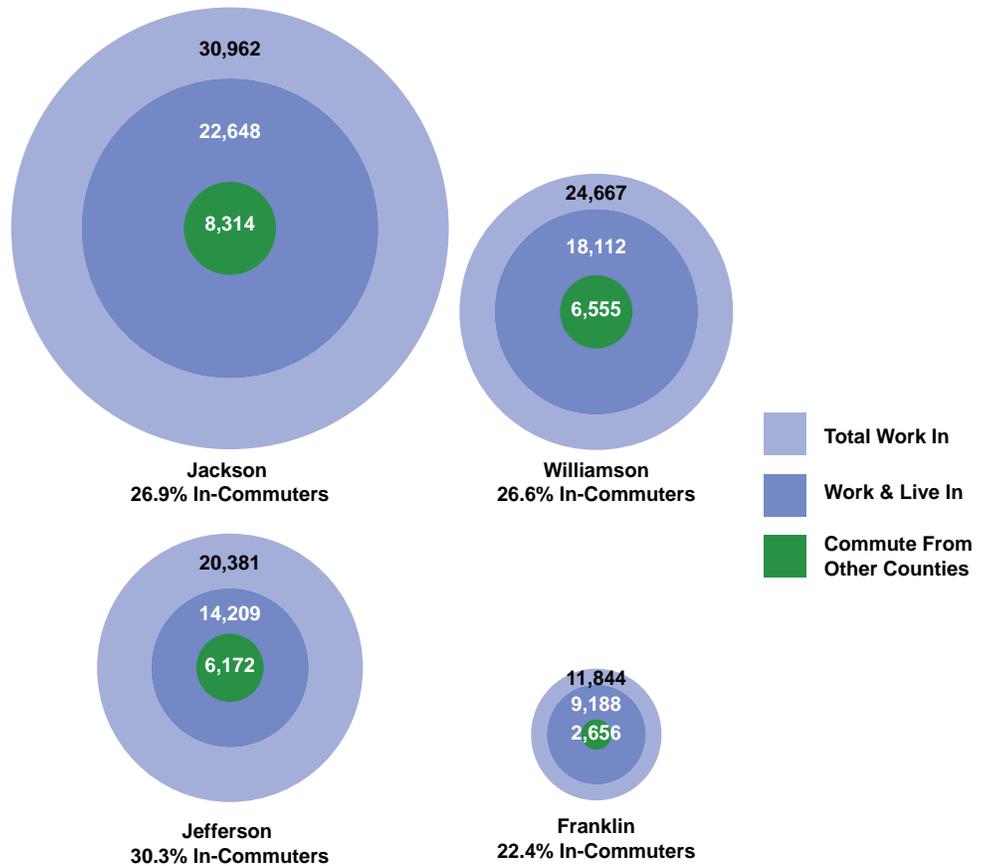
Many of the commuters to these communities are residents of the surrounding counties (see Table 6, next page). For example, seven surrounding counties have more than 100 commuters to Jefferson County. Some of the neighboring counties have sizable numbers of residents commuting to this region. For example, more than 1,000 commuters from Union County and 770 commuters from Perry County travel to Jackson County; more than 1,000 commuters from Marion County and 950 commuters from Hamilton County drive to Jefferson County; and nearly 800 commuters from Johnson County and 750 commuters from Saline County travel to Williamson County.

Major Developments and Trends

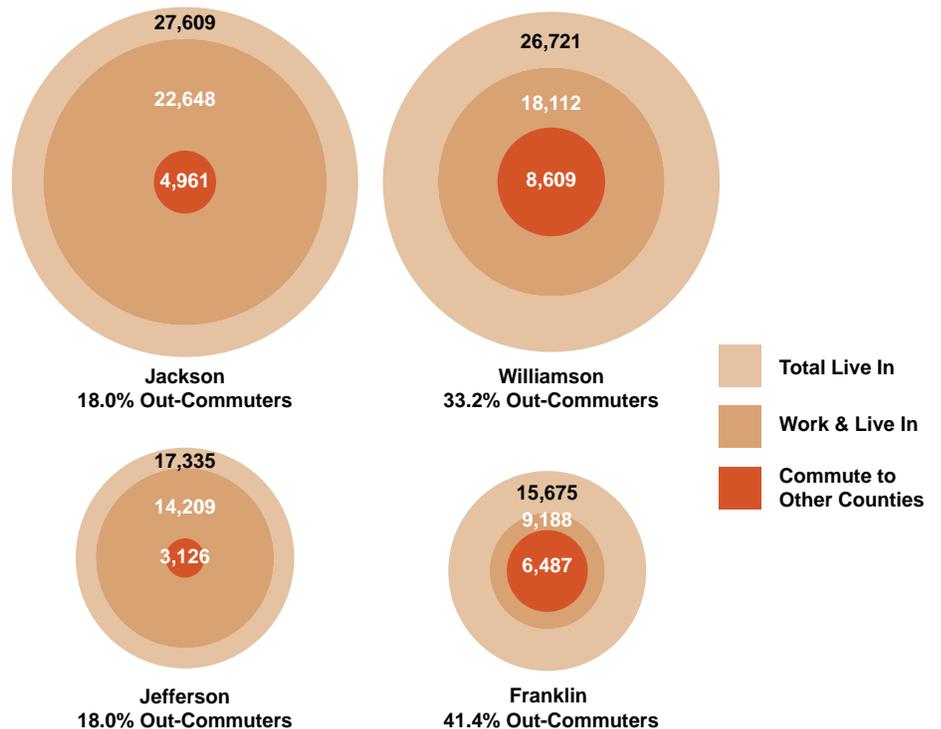
Education facilities are major employers in the southern Illinois corridor. Southern Illinois University in Carbondale is the largest regional employer and has an enormous economic impact. An ambitious \$83 million multi-phase construction project, called "Saluki Way," which entails new classrooms, a new football stadium and arena renovations, is underway and expected to be completed in the latter part of this year. Also, construction has started on a \$63 million Transportation Education Building for the university. Both community colleges, Rend Lake and John A. Logan, have recently completed building expansions.

Medical facilities have experienced major growth with plans for additional expansions in the future. Significant expansions and improvements have occurred at all the area hospitals. Heartland Regional Hospital in Marion was built several years ago, replacing an older facility. St. Mary's Good Samaritan Hospital in Mt. Vernon is planning to construct a new \$200 million center in the next two years. Numerous new doctor's

Table 5: Summary of In-Commuting



Summary of Out-Commuting



Source: U.S. Census Bureau - 2000 Census

Table 6: A Breakdown of Top In-Commuting by County

Franklin		
County	Number Commuting From	
Jackson	173	
Jefferson	277	
Williamson	1,209	
Hamilton	177	
Perry	199	
Saline	159	
	Total =	2,194
Jackson		
County	Number Commuting From	
Franklin	820	
Jefferson	41	
Williamson	4,462	
Johnson	208	
Perry	767	
Randolph	245	
Saline	172	
Union	1,011	
	Total =	7,726
Jefferson		
County	Number Commuting From	
Franklin	1,506	
Jackson	166	
Williamson	402	
Clinton	156	
Hamilton	945	
Marion	1,046	
Perry	370	
Washington	431	
Wayne	571	
White	112	
	Total =	5,705
Williamson		
County	Number Commuting From	
Franklin	2,123	
Jackson	1,728	
Jefferson	103	
Johnson	792	
Perry	142	
Saline	752	
Union	268	
	Total =	5,908

Source: U.S. Census Bureau - 2000 Census



The newly expanded Mitchell Museum Building at the Cedarhurst Center for the Arts in Mt. Vernon, Ill. The building was expanded last year with an additional 23,000 square feet.

Photo by Dennis Hoffman

offices, laboratories and medical centers have sprouted up throughout the region. In addition, a number of new senior citizens and assisted living facilities have opened within the last decade.

The multi-decade long expansion in the retail trade and leisure-hospitality industries continued. New restaurants, specialty shops, drug stores and motels have been springing up throughout the area. The steady improvement and expansion of facilities and activities at Rend Lake and Shawnee Forest has aided tourism and recreation. The development of wineries and the Wine Trail south of Jackson County has also increased the number of visitors. The recent expansion of Mt. Vernon's Cedarhurst Center for the Arts, with its Cedarhurst Sculpture Park, art museum, performing arts building and impressive grounds, also attracts tourists. The Southern Illinois Miners baseball team has been bringing in fans from surrounding counties since its first season in 2007.

The Department of Military Affairs is constructing new Armed Services Centers in Mt. Vernon and Carbondale. Both centers are scheduled to open in 2011 and will consolidate several

detachments from throughout the southern Illinois region.

Partly due to its excellent access to the highway systems and its proximity to the geographical center of the United States, the southern Illinois corridor is a magnet for trucking, distribution and warehousing firms. The opening of the new exits at Mt. Vernon and Marion will enhance this trend as well as other economic and commercial development.

The southern Illinois corridor has experienced moderate growth over the past decade. However, with all the recent significant developments, this region is certainly poised and ready for sizable economic gains and growth in the future. Education, transportation-warehousing, leisure-recreation, health care services, and retail trade are all major industrial employment sectors bound together in these counties with the I-57 and Route 13 highways. The increased access and opportunities in these communities should attract additional employers and residents in the future.

Dennis Hoffman is an IDES Labor Market Economist in Mt. Vernon, Ill.

State of Illinois Enhances Services to Unemployed Workers

by Yolanda Y. Harris



At roughly two-minute intervals one Friday morning, Illinois Department of Employment Security (IDES) employee Craig Berry politely responded to job seekers' telephone inquiries about unemployment insurance benefits. Some typical questions included: When will I get paid? Why didn't I get paid? How long will I receive benefits? Do I qualify for an extension?

Within a 20-minute period, Berry had updated a few claimants' records as well as explained the benefit process, offered reassurance of benefit payments and gave instructions on certifying for benefits to 10 customers who had called 1-800-244-5631, the telephone number of IDES' new Customer Service Center.

When asked how he remained calm even though the red call indicator on his phone remained lit, Berry responded: "I was out of work for one year before I got this job. I understand because I was once on the other side of the phone."

Berry, downsized one year ago from his job as an auditor for a small company that administers medical insurance benefits, is one of 50 people who staff IDES' two customer service centers. The department launched the customer service center in its downtown Chicago office in January of 2009 and created another center in its Lombard office nine months later in October. The new centers are among the many efforts the department has made to improve customer service in response to record high unemployment.

In addition to receiving the regular 26 weeks of the state's employer-funded unemployment insurance benefits, more than 200,000 Illinois claimants have received at least 20 of the historic 73 weeks of federally-funded extended benefits, reported IDES officials. Overall, IDES issued unemployment insurance benefits to 896,280 people in calendar year 2009, compared to 454,726 people in 2007, the end of which saw the start of the recession.

"The recession made it quite clear to us that we had to make some changes in our operations

to accommodate the needs of unemployed workers," said Terry Larkin, IDES Deputy Director of Administration. "During the past year, we've concentrated our efforts on enhancing our customer touchpoints. We've made quite a few improvements to our telephone, online and office services, and more changes are on the way."

The customer service centers were launched as an alternative, immediate point of contact for claimants who might have had difficulty reaching a live person on the phone at a local IDES office. Since the centers were launched, the wait time for a customer on the customer center phone line has been reduced to three minutes, said Linda Baker Rosenberg, IDES Director of Field Operations. "We've come a long way," Baker Rosenberg said. "Our goal is to get our answer rate under a minute."

In addition to creating the call centers, IDES extended the hours and expanded the number of lines of its Tele-Serve service (1-888-337-7234), an automated telephone system that claimants call to certify their eligibility for

unemployment insurance benefits. Tele-Serve hours were extended by up to four hours daily, at one point operating up to 16 hours a day, Monday through Friday.

The department also made it possible for claimants to certify for benefits online last May. Anywhere from 30,000 to 35,000 claimants — 11 to 13 percent of all claimants — certify for benefits online each week, agency officials reported. “We hope more claimants will take advantage of online certification,” Larkin said. “If you’re comfortable with the Internet, you could probably answer the certification questions more quickly online.”

IDES also made internal improvements to ensure efficient service to customers. It developed an Internet Claims Unit in Springfield whose sole responsibility is to process Internet claims so that IDES staff in local offices can devote more time to serving customers. IDES also established greeters in its offices to help customers navigate through state services faster when they enter IDES offices.

And, to help job seekers keep abreast of the latest trends in the labor market, the department updated the career information, labor force data and occupational licensing information on its Web site and created a Web page devoted to green jobs.

Upcoming Enhancements for Job Seekers

Last year’s customer service enhancements are just the beginning. For example, this spring the department will adopt a new phone system that will improve customer service. On high call volume days, the new phone system will have the ability to automatically reroute calls from local offices to the agency’s Customer Service Center. If callers are put on hold when they reach the center, they will be notified of their wait time.

Starting this summer, IDES employees who handle customer inquiries will be able to access all the pertinent information they need about a claim at the click of a mouse. That’s because the information will be readily available in real time, eliminating the extra time it takes to research and gather information, explained Frank DeMore, Project Management Officer of IBIS, the agency’s new benefit information system. Claimants also will be able to see their benefit statements on the Internet. The records, dating back as far as 18 months, will be updated within 24 hours of a claimant certifying for benefits, DeMore said. In addition, claimants will no longer have to provide their Social Security number when they contact IDES about their benefits or claims. Instead, they will provide their new

claimant identification number starting this summer. This new protocol will provide enhanced security for claimants when they are in local offices and when they receive IDES correspondence in the mail.

Finally, claimants who receive Trade Readjustment Allowances can start certifying for benefits online this summer. The allowances are income support for people in approved training programs who were laid off from work or whose hours were reduced, because of foreign imports, and who have exhausted their unemployment insurance benefits. Currently, these claimants only can certify by mail.

Whether job seekers contact IDES services through one of its local offices, the telephone, or on the Internet, they will find that IDES is more accessible to them than in the past. If they call IDES’ customer service center, chances are good that they will speak with a representative such as Berry, who says he has been in their shoes.

“When people are calling, I know they’re in probably one of the worst times of their lives. The least I can do is try to empathize with them and do whatever I can to make it better.”

Yolanda Harris is Editor of the Illinois Labor Market Review.

Recent IDES service enhancements:

- New online certification for benefits: www.ides.state.il.us
- New Customer Service Call Center: 1-800-244-5631
- Expanded Tele-Serve hours for benefit certifications: 1-888-337-7234
- New information on careers and green jobs: www.ILWorkinfo.com
- Updated information on occupational licensing: www.ides.state.il.us/licensepub

Upcoming IDES improvements:

- New telephone system
- Real-time claimant records
- New online claimant benefit statements
- New claimant identification numbers
- Online certification for recipients of Trade Readjustment Allowances