

The Hoosier Heartland Region

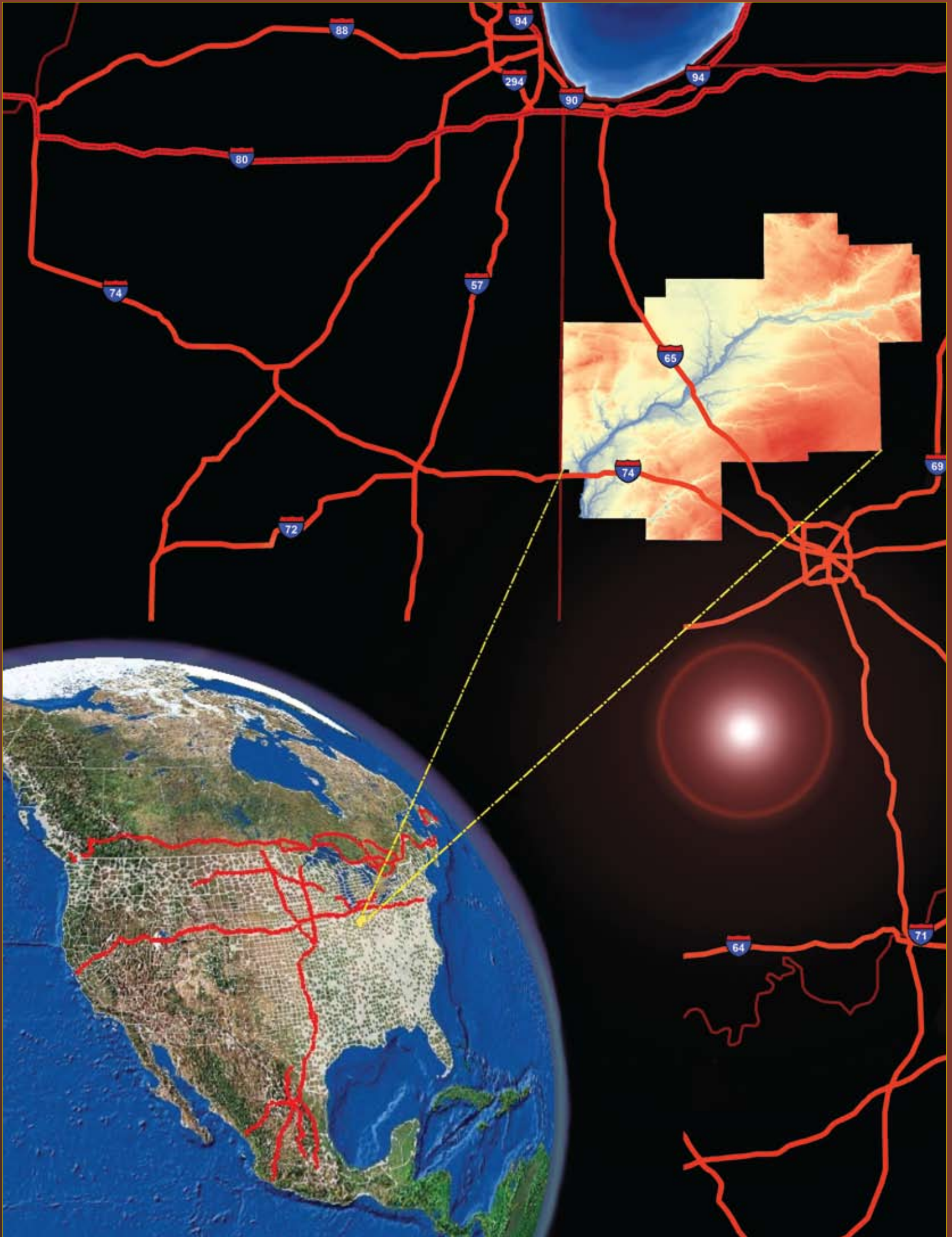
Connected



Talented



Innovative



Background

In 2005, the Hoosier Heartland region was awarded one of thirteen Workforce Innovations in Regional Economic Development (WIRED) grants from the U.S. Department of Labor, Employment and Training Administration (DOLETA). These grants were distributed across the nation. The Hoosier Heartland region consists of fourteen counties – all but two of which form Indiana Economic Growth Region 4 (EGR4).

The Hoosier Heartland Region

"Eventually all things merge into one, and a river runs through it."
-- Norman Maclean



Under the WIRED program, strategic goals for transforming the regional economy included (1) developing a workforce with 21st Century skills, (2) creating globally competitive industries, (3) building a culture for entrepreneurship, and (4) weaving a supportive regional civic infrastructure. Over 70 institutional partners collaborated to support these goals. Partners included industry, higher education, workforce organizations, local economic development organizations, K-12 school corporations, and others.

WIRED officially comes to an end on January 31, 2010 and as of the 2nd quarter of 2009 the initiative has met and exceeded all established workforce metrics with 15,000 workers beginning training and nearly 14,000 completing training, and 1,200 degrees or certifications awarded. Economic development metrics include:

- \$2.1 million in industry cost savings,
- \$4 million in industry sales retained,
- \$1.2 million in sales growth,
- 645 new corporate top-line growth ideas generated,
- 19 new business plans developed,
- 8 new products/services and,
- 2 new businesses launched.

Over 90% of WIRED-funded programs and initiatives will continue after WIRED funds are exhausted, ensuring continued regional transformation well into the future of the Hoosier Heartland region.

As part of the WIRED project, the grant provided funding for the formation and training of a group of leaders to ensure follow up, continuity and new directions after the Federal WIRED program formally ends. This group, the Hoosier Heartland Regional Leadership Institute (RLI), continued its important work in 2009 with a series of successful workshops. These workshops provided a structured, collaborative environment in which leaders from across the region – leaders from academia, industry, small business, local government, funding agents and not-for-profits - worked together in teams to identify how the region will move forward with a new regional identity in a meaningful and sustainable way.

A number of strategies were employed to speed key results. Book discussion groups analyzed two recent publications about the Midwest and regionalism to help participants better understand changes necessary for the region to prosper within the global economy.

An experienced facilitator engaged RLI participants in a regional visioning and planning process. This setting allowed participants to develop the mutual respect and trust necessary for high-performance collaborative outcomes. Members challenged each other and then developed agreements on the key characteristics necessary to ‘become a region’ and, importantly, not just another region, but a high-performance and prosperous region with midwestern values and work ethic, a unique location, lifestyles and amenities that exist only within the Hoosier Heartland region.

As an outcome of this process the RLI identified a number of key result areas (essential topics to move forward into the future) and formed task teams to lead these efforts. The Regional Leadership Institute desired the creation of timely, accurate, relevant and widely-understandable graphic information to assist in the challenges of pursuing their goals, and a document providing a common framework for regional issues. They commissioned this study with the goal of informing themselves and others on crucial aspects of their region that will affect regional strategies identified by the seventy plus Regional Leadership Institute members as they begin their work in terms of regional projects.

Under the broad rubric of creating a regional mindset, the RLI has developed a set of three priority strategies to move the region forward in the immediate future.

Priority Regional Strategies

Create a regional mindset by developing regional leaders, regional stewardship, and a culture of collaboration to:

- **Foster a prosperous economy through collaborative efforts and entrepreneurial innovation.**
- **Advance livable communities and ensure a sustainable environment.**
- **Strengthen education and workforce development to enhance diversity and human capital.**

The Hoosier Heartland Region at a Glance

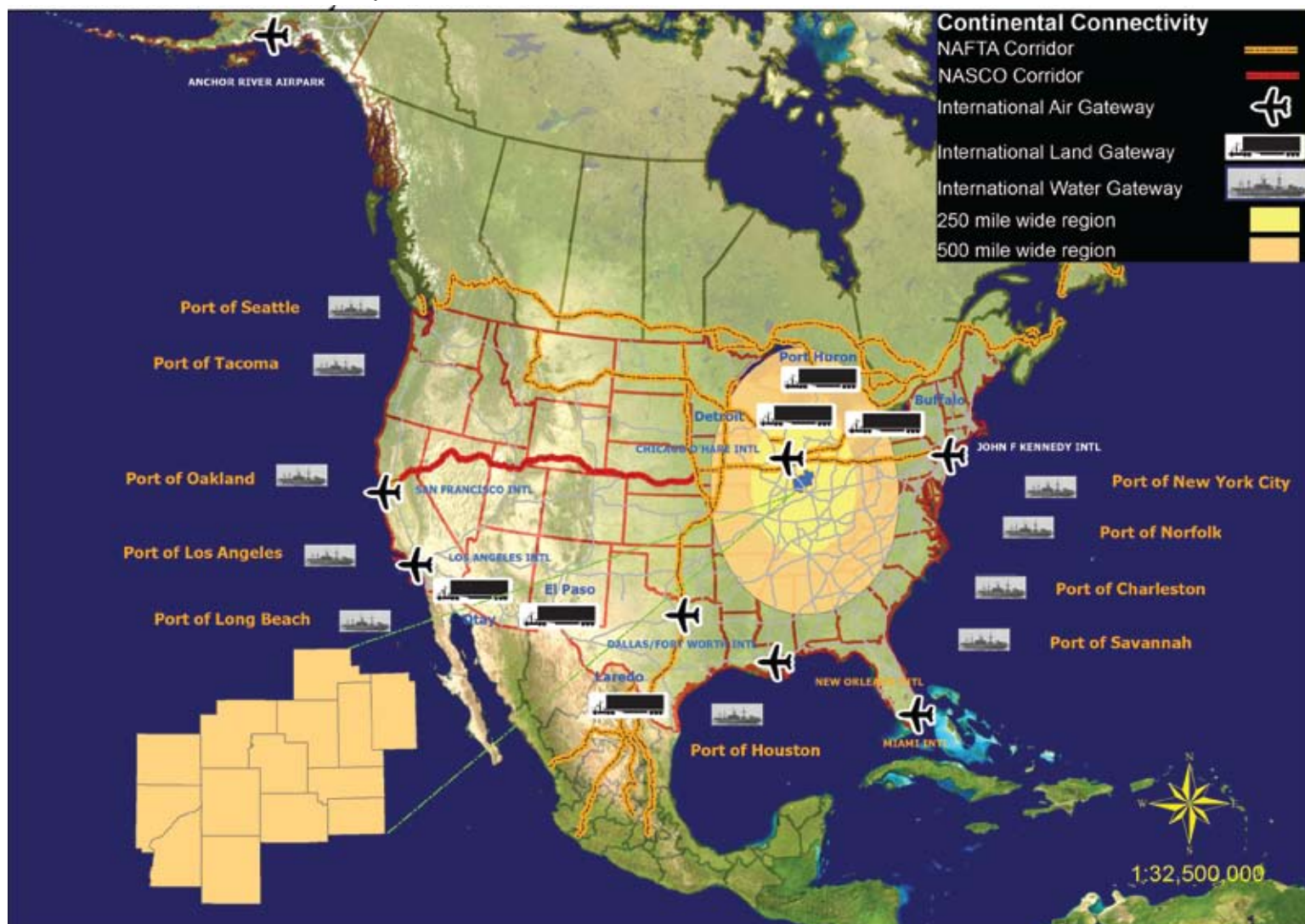
Area	Demographic					Economic	
Distance (Radius)	Population	Households	Hispanics	Working Age Group (20-64 years)	Median Age	Average Household Income	Average Per capita income
50 mile	987,288	383,531	47,037 (4.8%)	595,028	36.2	\$67,945	\$27,222
100 mile	6,948,534	2,612,525	485,479 (7%)	4,136,041	36.5	\$61,012	\$23,684

Area	Housing	Businesses	Education	
Distance (Radius)	Housing units	Establishments	Bachelor's degree	Graduate degree
50 mile	432,289	36,035	114,576	75,378
100 mile	2,999,450	233,324	687,633	413,133

Source: Decision Data Resources, WITS

The Region in Context

The Hoosier Heartland Region: International Gateways and Trade Corridors



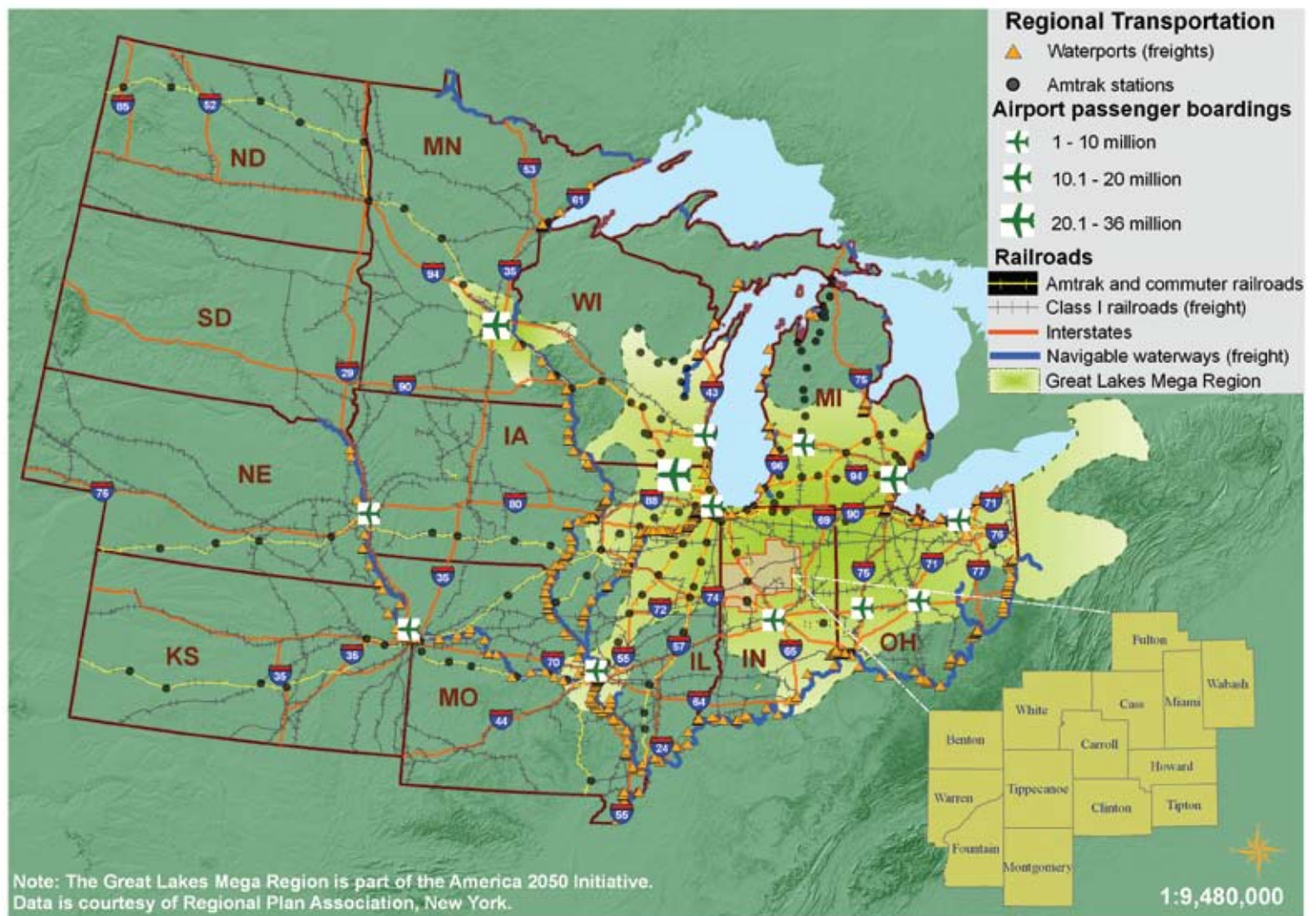
This report first examines and situates the Hoosier Heartland region within the wider context of North America, the Midwest as a whole, the metropolitan areas in the region, and the state of Indiana with its 11 Economic Growth Regions. It then proceeds to look at the assets and challenges faced by the region in its initiative to “create a regional mindset by developing regional leaders, regional stewardship and a culture of collaboration,” continuing on to catalogue regional assets and challenges for each of the proposed three strategies. The report ends with a summary conclusion that highlights important findings, opportunities and challenges to be considered by the Regional Leadership Institute as they begin to put in place their work program.

The Crossroads of America: Indiana is known as the “Crossroads of America”. It is traversed by interstates and railroads, with major international airports and seaports available within the state or in close proximity in Illinois, Ohio, and Michigan. This excellent transportation system provides higher levels of accessibility and connectivity to other geographic regions within the US and Canada. Located in the heartland of Indiana, the Hoosier Heartland region has similar benefits of higher accessibility and connectivity to other parts of the world.

The Hoosier Heartland Region in the North American Context: The Hoosier Heartland region is served by several

trade corridors identified by the North America Super Corridor Coalition, Inc. (NASCO), which includes the North American Free Trade Agreements (NAFTA) Super Corridors. The NAFTA Corridors, such as I-80, I-90, Trans Canada, and the I-35 Corridors are located within 500 miles (within a day’s drive) of the region. In addition, several international land gateways connecting to Canada and the Chicago air gateway are easily accessible from the region, which is a major advantage for freight movement, logistics, and global connectivity.

The Hoosier Heartland Region in the Midwestern Context



Within the Midwest (as defined by the Bureau of Economic Analysis), the Hoosier Heartland region is located near many concentrations of population and jobs in larger neighboring states - Illinois, Ohio, Michigan, and Wisconsin. These areas are served by a sophisticated transportation infrastructure. Class I freight railroads, Amtrak and commuter railroads, Interstates, navigable waterways, and ports are available within easy driving distances. The Hoosier Heartland region has several major airports in the close vicinity, such as Chicago O'Hare, Indianapolis and Cincinnati international airports, which have high numbers of passenger and freight traffic.

As the metropolitan areas develop further, it is anticipated that parts of Wisconsin, Illinois, Indiana, Michigan, and Ohio will merge physically into one major urban agglomeration by 2050. The Hoosier

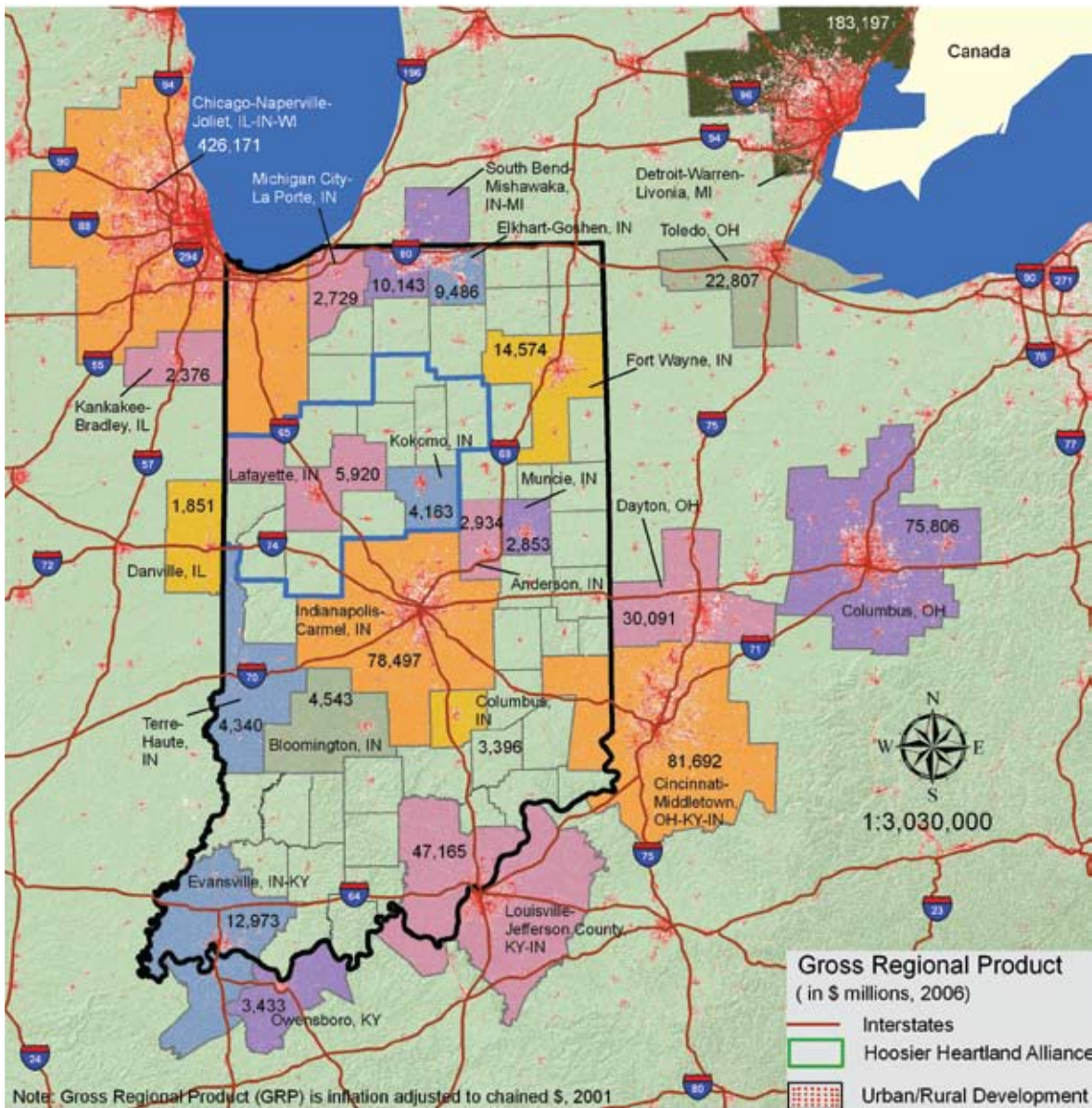
Heartland region is located almost at the geographic center of this emerging Great Lakes Mega Region, (America 2050 Initiative by the Regional Plan Association, New York).

The Hoosier Heartland Region and the Metropolitan Economy: Several large metropolitan economies are located in the areas surrounding the Hoosier Heartland region. The most notable are Chicago-Naperville-Joliet with a 2006 Gross Regional Product (GRP) of \$426 billion; Indianapolis-Carmel with a GRP of \$78 billion; and Cincinnati-Middletown with a GRP of \$81 billion. Two metropolitan areas are located within the Hoosier Heartland region: Lafayette with a GRP of about \$6 billion and Kokomo with \$4 billion.

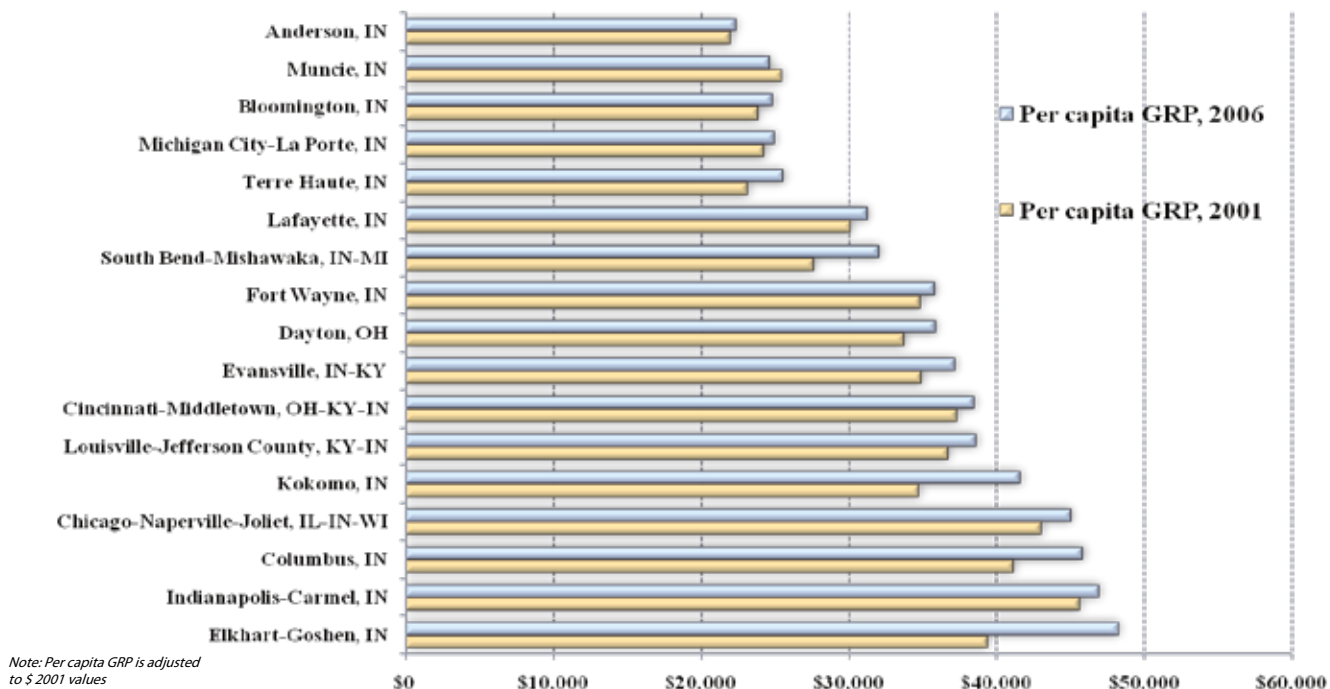
The size of the GRP may reflect the size of the metropolitan economies, however

per capita GRP, a measure of economic productivity, shows that Elkhart-Goshen had the highest productivity in 2006 followed by Indianapolis-Carmel, Columbus, and Chicago-Naperville-Joliet metropolitan areas.

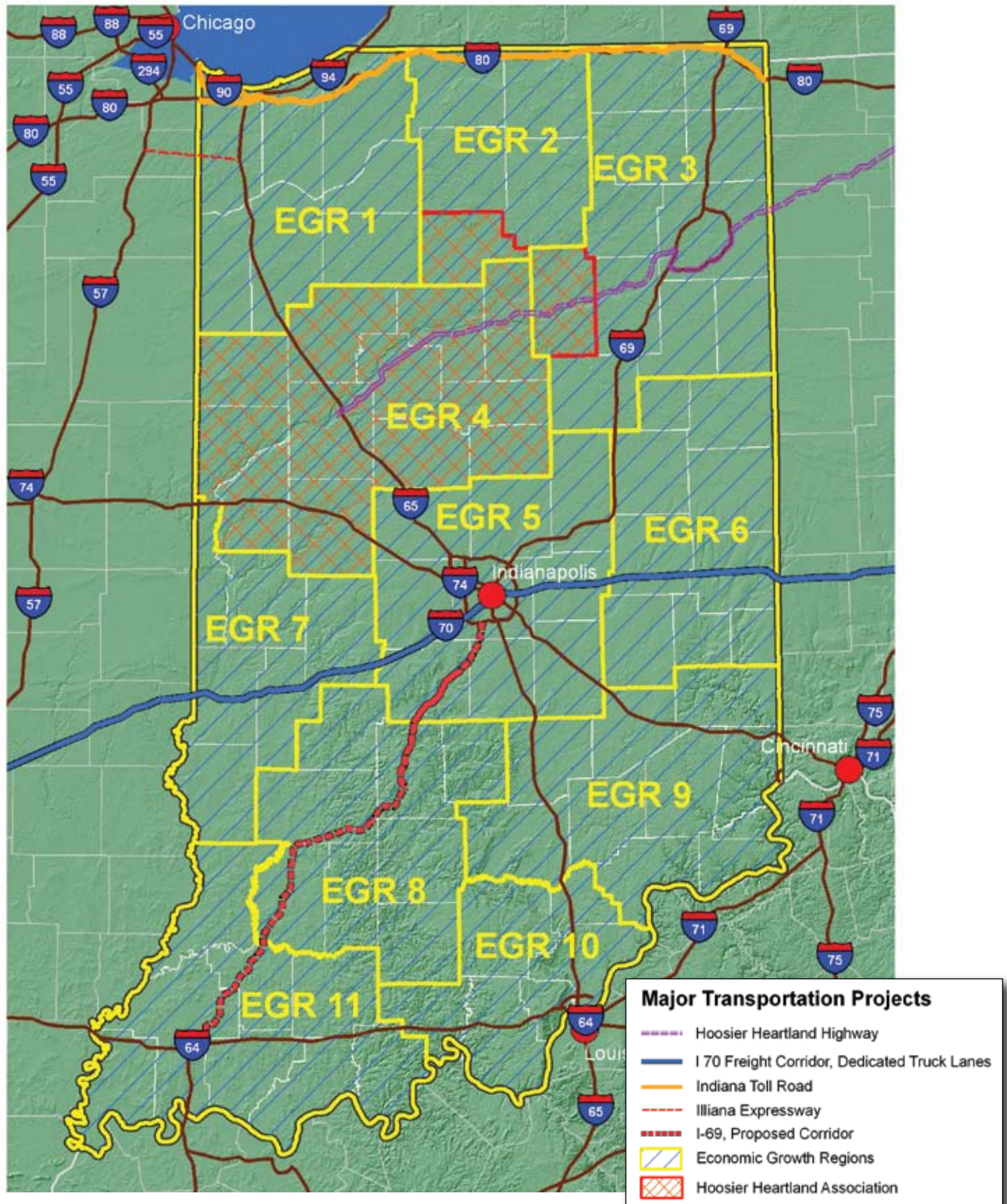
The Hoosier Heartland Region and the Metropolitan Economy



Per Capita Gross Regional Product, 2001 & 2006



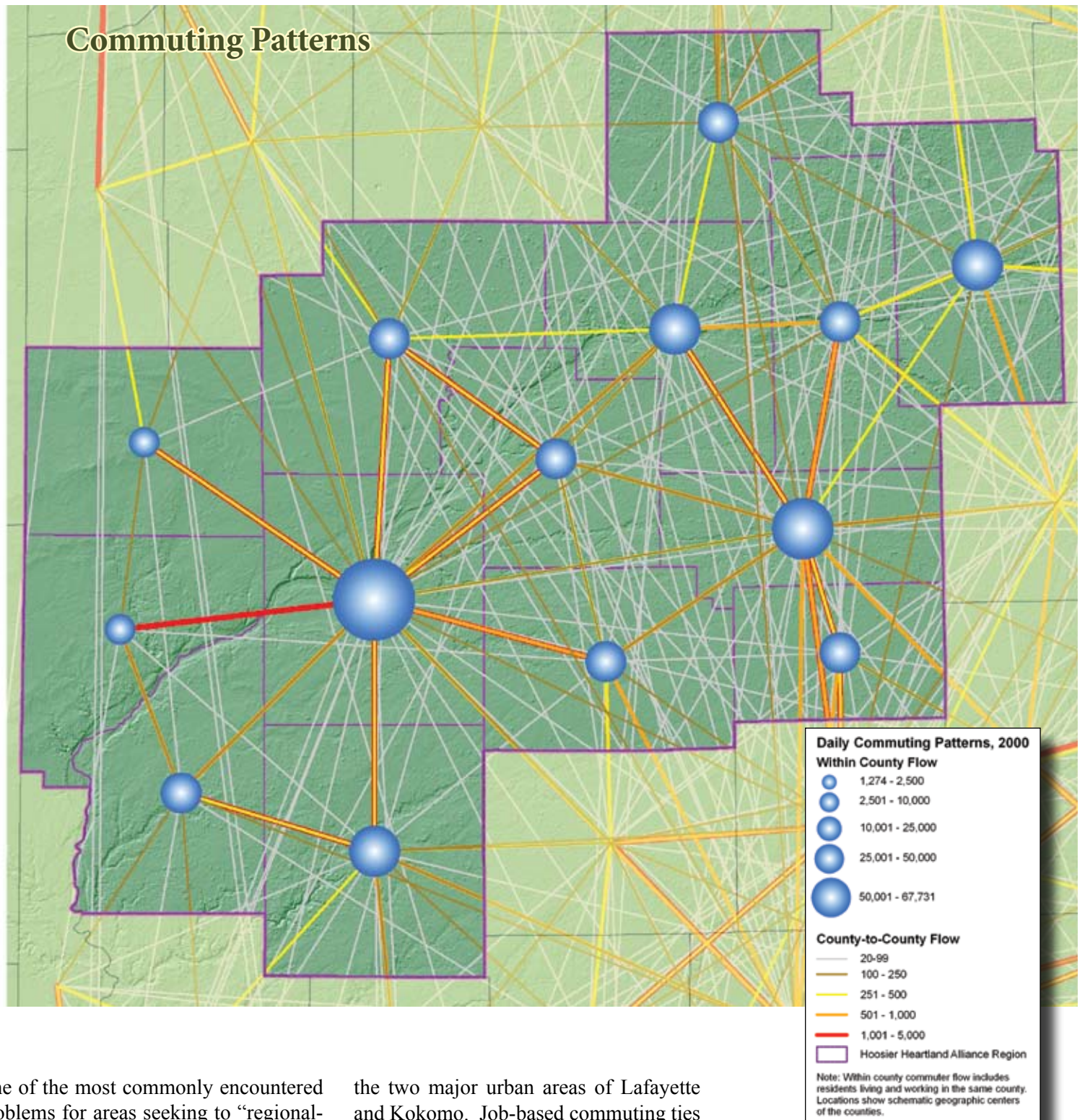
Indiana Economic Growth Regions



Indiana has 11 economic growth regions (EGRs), largely based on labor market areas. The Hoosier Heartland region is located in EGR 4 with two additional counties from EGRs 2 and 3. It should be noted that most of the EGRs have large infrastructure projects underway

or under consideration and the Hoosier Heartland region is in close proximity to these projects. The most important of these are the Hoosier Heartland Highway (State Route 25) and its further extension from Fort Wayne, IN to Toledo, OH known as the Fort to Port Corridor; the

I-70 dedicated freight corridor; the extension of I-69 in southern Indiana and the Indiana Toll Road improvements located in northern Indiana. These infrastructure improvement projects have the potential for large economic impacts on the Hoosier Heartland region.

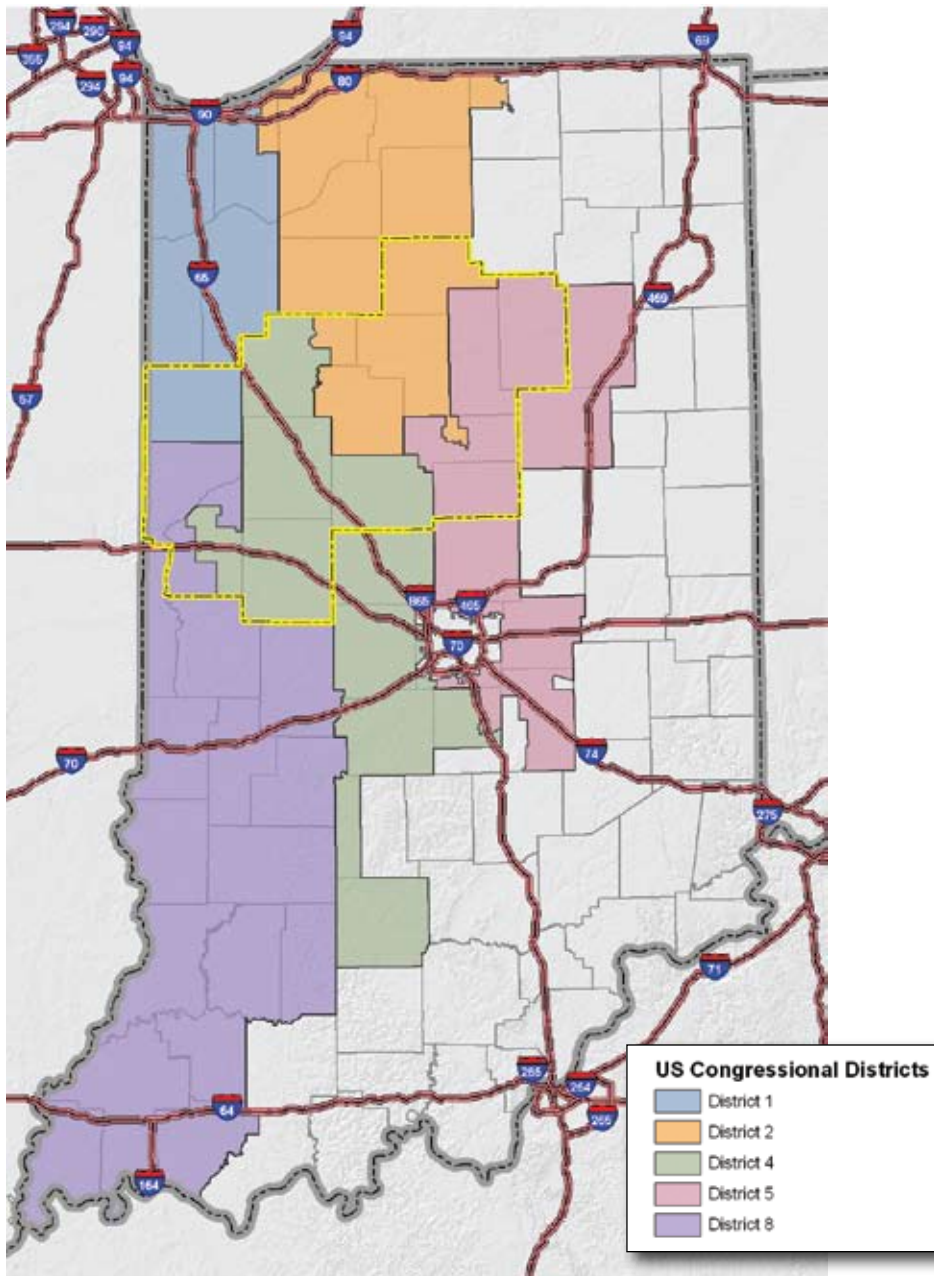


One of the most commonly encountered problems for areas seeking to “regionalize” in the US is the fragmentation of local government, administrative and political units. The Hoosier Heartland region is no exception to this rule, although several multi-county arrangements already exist.

Commuting Patterns: The commuting patterns for work indicate that the region has two major labor markets, centered on

the two major urban areas of Lafayette and Kokomo. Job-based commuting ties between Lafayette and Kokomo do exist but they are not as strong as the ties with their surrounding counties. Kokomo has significant commuting ties with the Indianapolis metropolitan area. White and Cass counties have significant incoming and outgoing commuting ties with their neighboring counties. The commuting patterns reveal the embedded large and small labor markets within the Hoosier

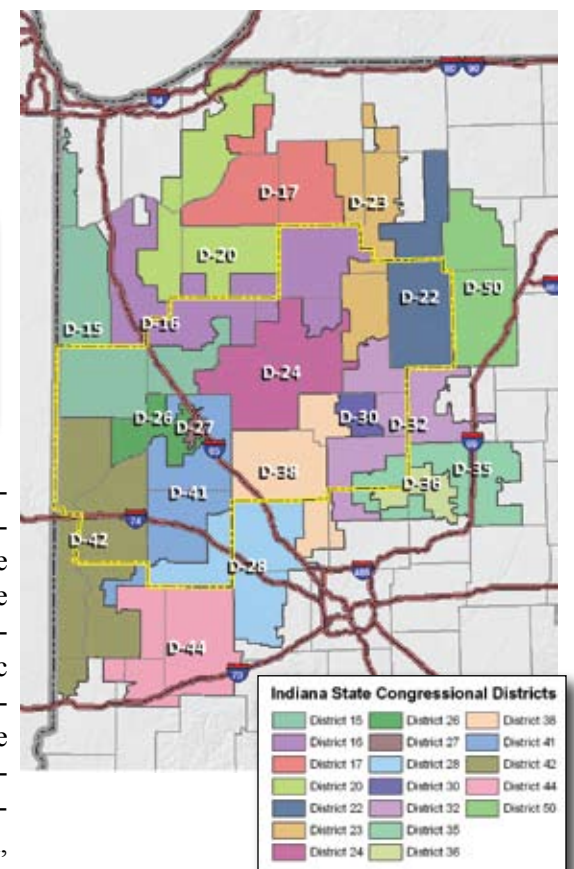
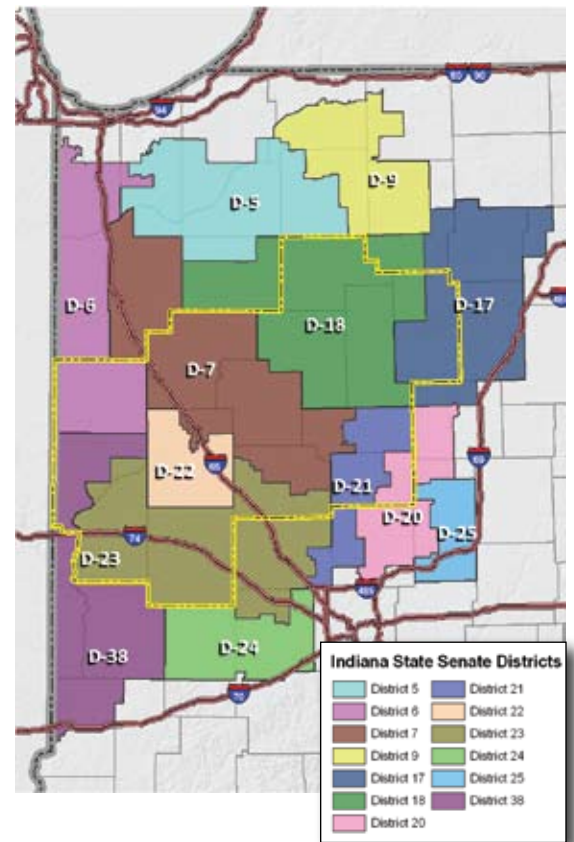
Heartland region. When the major transportation improvements underway are completed, there may be possibilities for establishing more cross-cutting ties within the regional labor markets, although it is likely that further improvements to more secondary (locally and regionally highly-used) roads may be necessary to achieve this goal.



Political Boundaries: There are five US Congressional Districts represented in the Hoosier Heartland region. Districts 1 and 8 are the least represented in both geographic area and population. Nine Indiana State Senate districts are represented in the region and four adjacent districts. Fifteen Indiana State Congressional districts are represented in the region.

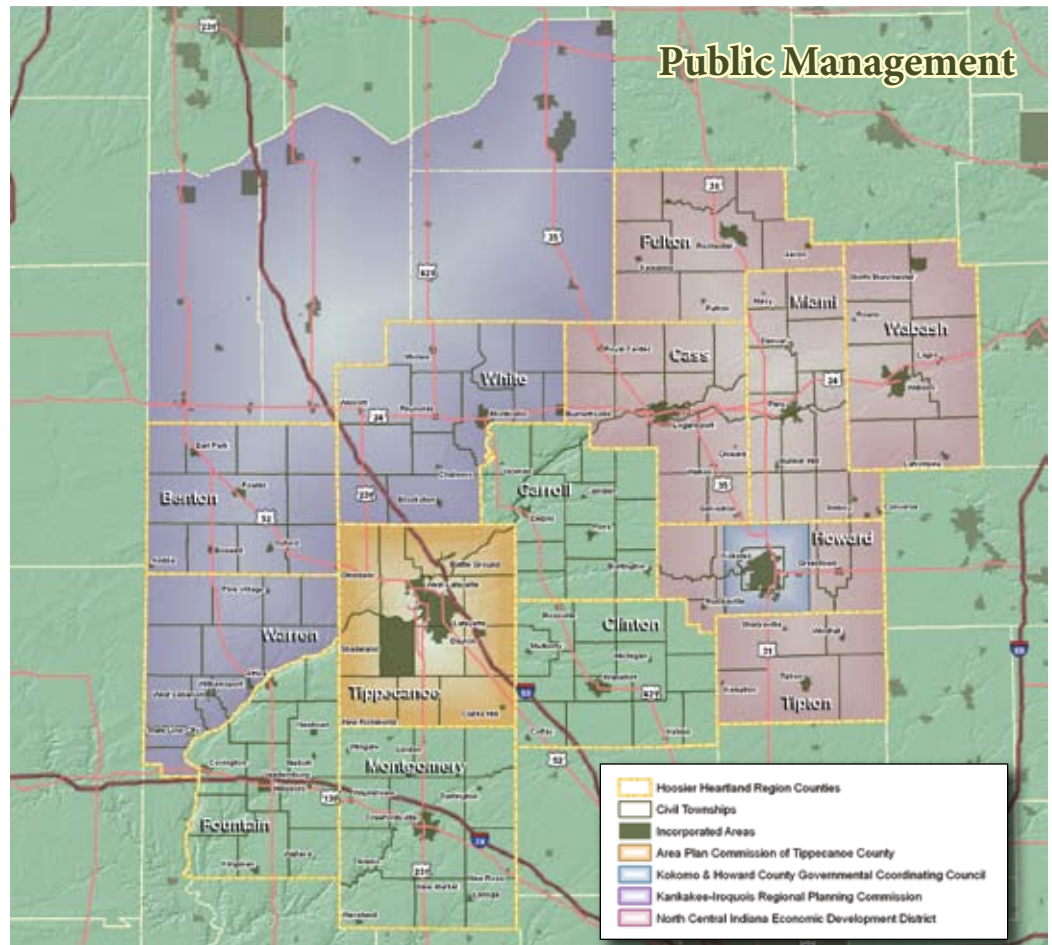
Public Management: The Hoosier Heartland region contains 14 counties, 209 civil townships, and 80 incorporated areas as well as two metropolitan planning organizations (MPOs): the Area Plan Commission of Tippecanoe County and the Kokomo/Howard County Governmental Coordinating Council.

Nine of the fourteen counties participate in regional councils of government. Benton, Warren, and White counties belong to the Kankakee Iroquois Regional Planning Commission, which is a voluntary public partnership providing assistance to local units of government to maximize community and economic development opportunities in Benton, Jasper, Newton, Pulaski, Starke, Warren, and White counties. Cass, Fulton, Howard, Miami, Tipton, and Wabash counties belong to the North Central Indiana Economic Development District. Benton, Carroll, Cass, Fountain, Montgomery, Pulaski, Tippecanoe, Warren, and White counties belong to MidWest Indiana Economic Development,

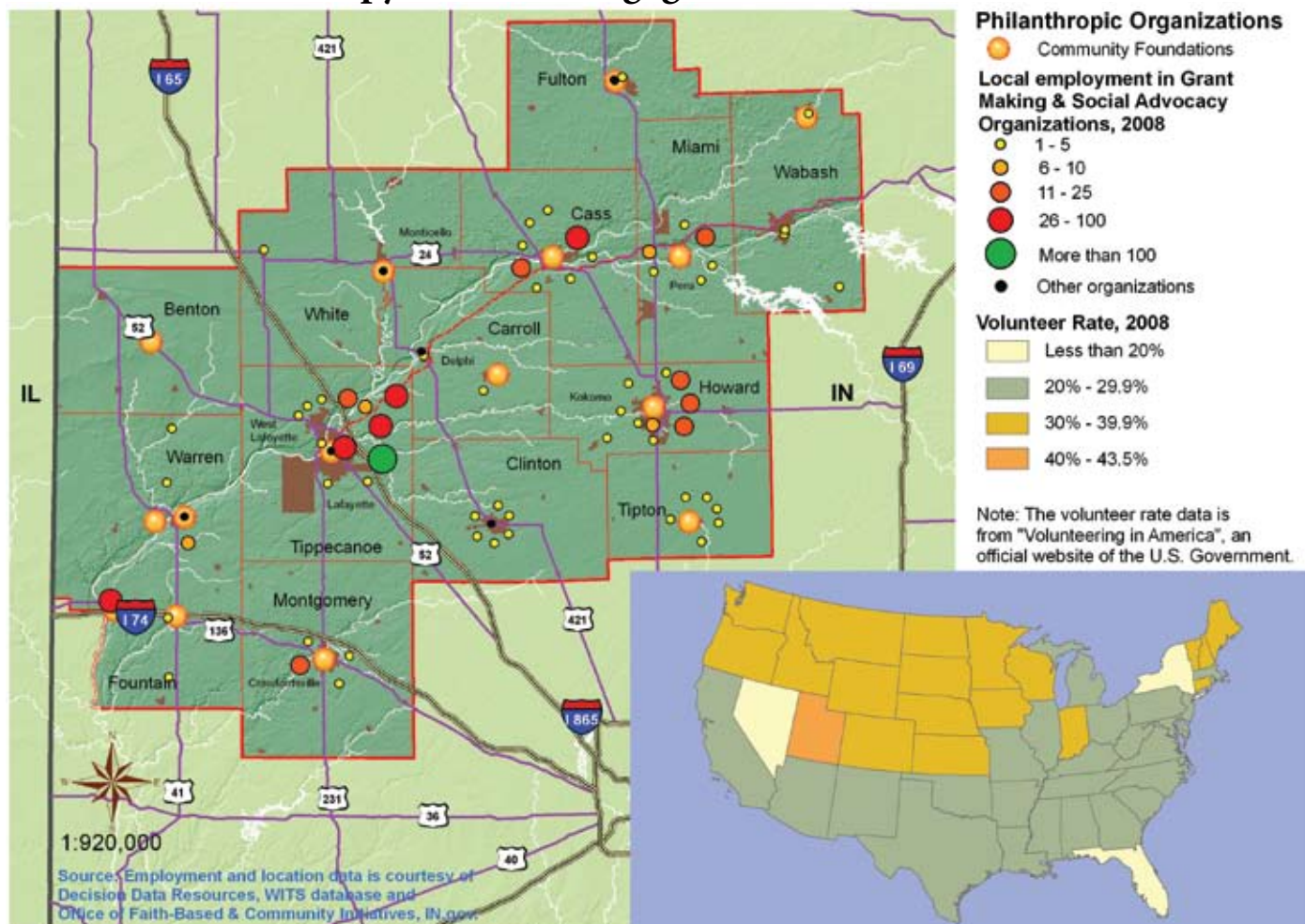


opment, a recently formed nine county economic development organization, established to help these counties pool their resources to sell the idea of regional economic development.

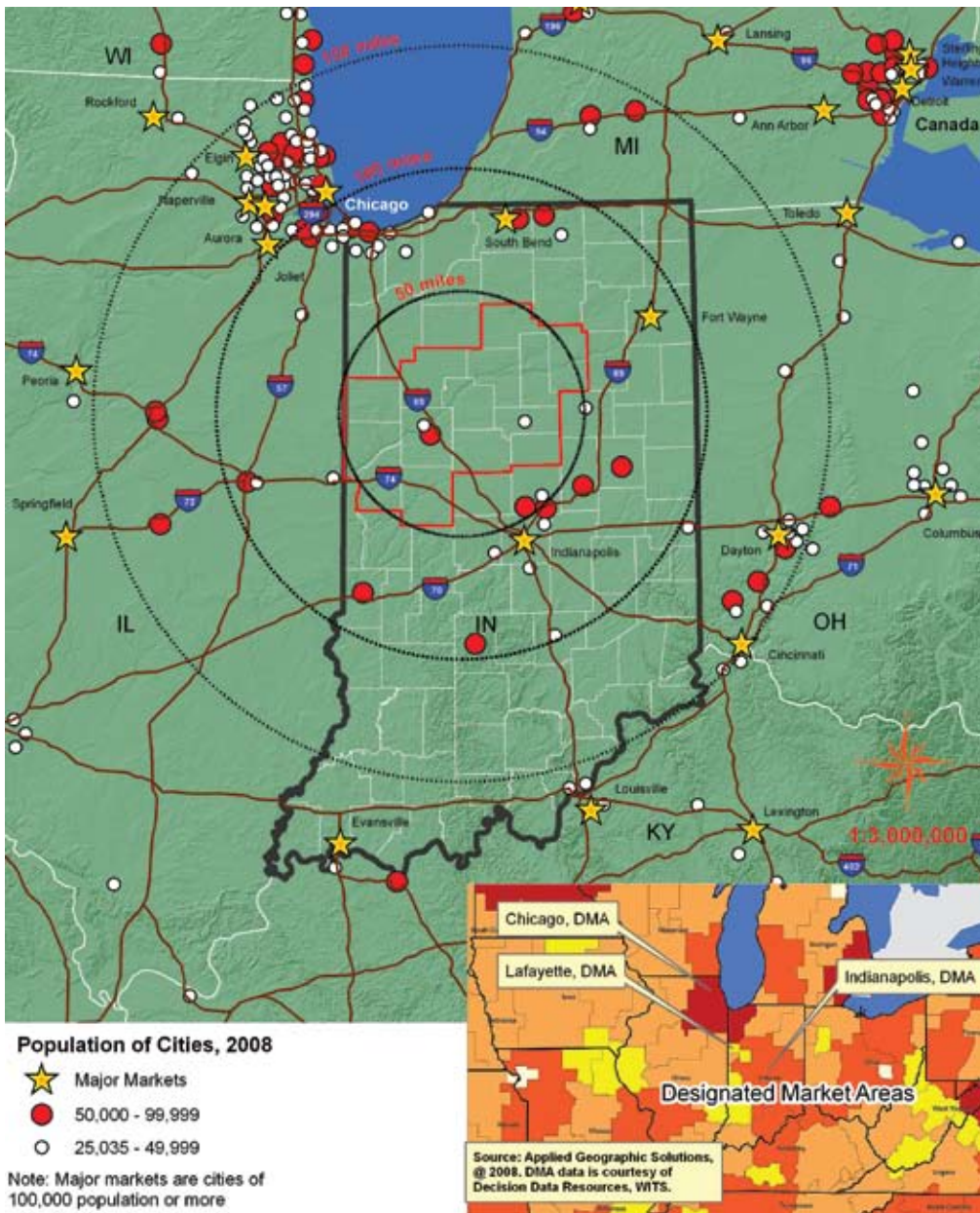
Philanthropy and Civic Engagement: Indiana is ranked 19th in the United States in volunteering, with a volunteer rate of 30.5% residents volunteering 223 million hours of service based on an average from 2006 to 2008. Within the Midwestern states Wisconsin, Minnesota and Iowa had a higher ranking than Indiana, however Indiana's rank is higher than most of the surrounding states in the Midwest and the Northeast. Hoosiers are philanthropic by nature and the statewide trend is evident in the Hoosier Heartland region, too. Each of the 14 counties either has or shares a community foundation. There are several organizations engaged in grant making and social advocacy with fair sizes of employment. The challenge will be establishing connectivity between these organizations to enable a regional focus to emerge.



Philanthropy and Civic Engagement



Accessibility to Major Markets



Market Accessibility: The Hoosier Heartland region has world-class connectivity to major markets due to a network of interstates. Several cities with a population of 50,000 or more are located within the radii of 100 and 150 miles. Similarly, several major markets or cities of population 100,000 or more are located within the 150 mile radius or less than 3-hour driving distance. In 2008, about 7 million people were living within 100 miles of the Hoosier Heartland region, which corresponded to 3 million housing units and about 2.6 million households.

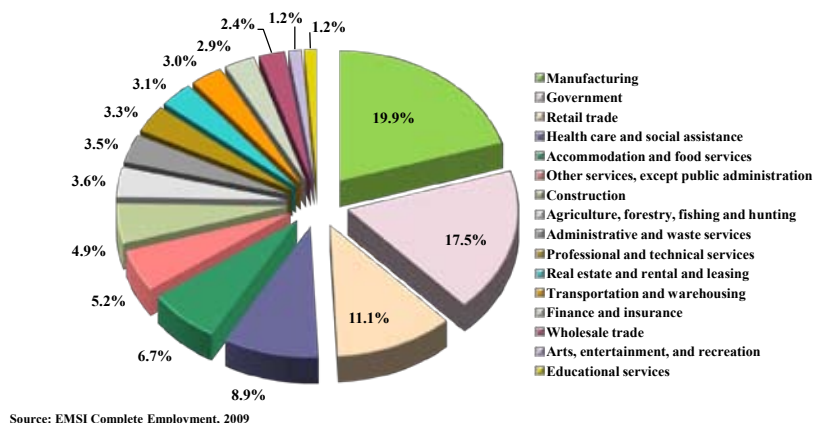
Regional Industry Composition: The 5 largest industry sectors in the Hoosier Heartland region are manufacturing (nearly 20% of all regional jobs, compared to 7.4% nationally in 2009), government (nearly 18% compared to 14% nationally), retail trade (11% compared to 10.4% nationally), health care and social assistance (9% compared to almost 11% nationally), and accommodation and food services (9% compared to 7% nationally).

Clearly, the basic structure of the Hoosier Heartland region's economy presents a very different distribution of economic activity from the national norm. Most striking is the difference between the share of manufacturing jobs regionally and the national average. However the government sector's share is larger in the Hoosier Heartland region than the nation, while health care and social assistance are smaller by two percentage points. In the case of the government sector, the share of this sector may be somewhat artificially high due to the inclusion of two state universities in this particular data set.

Manufacturing jobs in the nation as a whole have decreased by 19% since 2002. In the Hoosier Heartland region, manufacturing jobs have decreased by 30% between 2002 and the third quarter of 2009. The region has been particularly vulnerable to the current recession due to the concentration of automotive industries within its boundaries.

Industry Composition of the Hoosier Heartland Region, 2008

Hoosier Heartland Region Percent Share of Jobs by Major Industry Sectors, 2008



Regional Industry Clusters, 2009

Industry Clusters are different from industry sectors. Industry clusters may be made up of several industry sectors, or even parts of different industry sectors. What brings them together is the degree of interdependence between different industries. Industries in a cluster may buy and/or sell from each other. They are part of a value chain, where value is added at different stages of the production process and they include support industries such as print-shops and message services, as well as government services. Workers in an industry cluster may share some common characteristics. They may be able to transfer relatively easily between some of the industries contained in the cluster.

Like industry sectors, industry clusters emerge, grow, mature and wane – especially along with technological change, or change in consumer preference. Industry cluster analysis can provide a picture of established and emerging concentrations of related businesses in a region. These clusters represent the concentration of firms where the regional economy is currently generating its wealth. They point to market niches where business firms are signaling either established or potential areas of excellence.

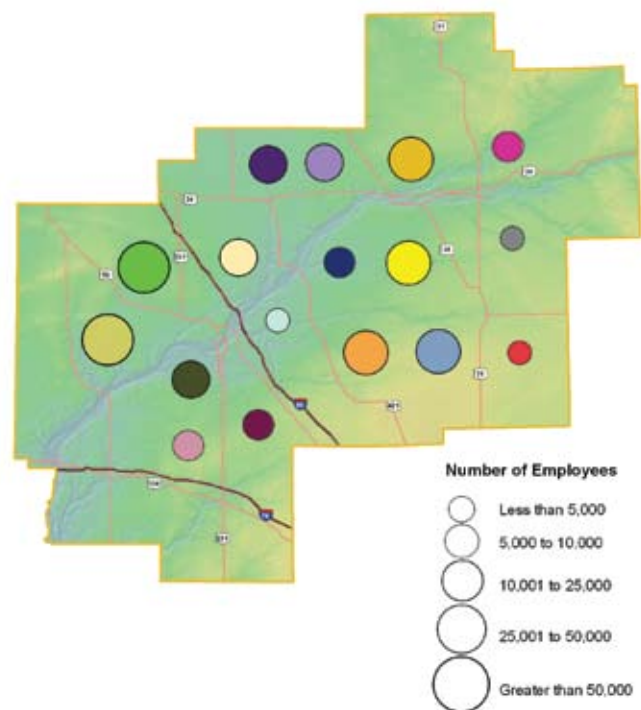
The largest industry clusters in the Hoosier Heartland region as a whole are the energy and the biomedical/biotechnical (life sciences) clusters. The energy cluster is large because it includes all energy related activities including gas stations. Other significant clusters include the manufacturing supercluster (primary metals and fabricated metal products; machinery and transportation equipment; computer and electronic products; and electrical equipment, appliances and components manufacturing); defense and security; agribusiness, food processing and technology; and the information technology and telecommunications cluster.

The top three industry clusters in each county are also shown. The areas of specialization in each county differ considerably in some cases – for example, Howard County is highly specialized in advanced materials, manufacturing and glass and ceramics.

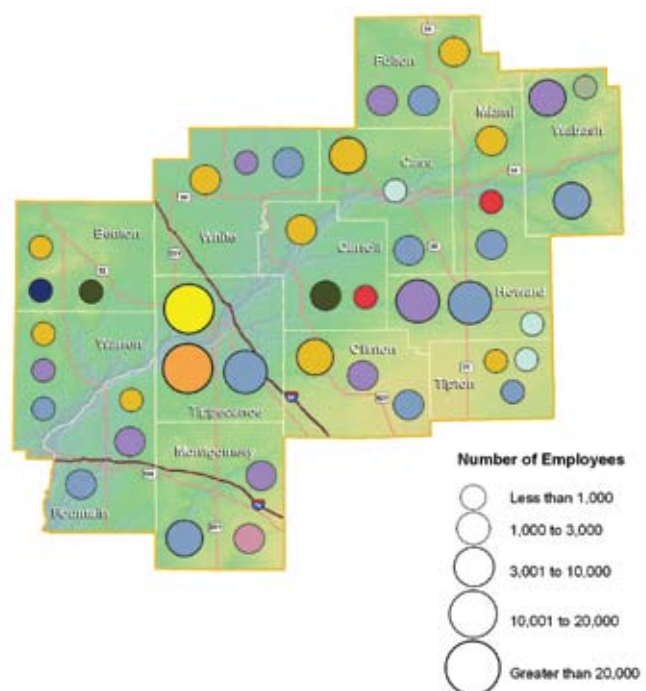
Tippecanoe County, by contrast, is specialized in the defense and security cluster, manufacturing and information technology and telecommunications. All counties with the exception of Benton and Carroll are specialized to some degree in the manufacturing supercluster.

Occupation clusters are made up of groups of occupations that require similar skills and knowledge. They provide a similar picture to that given by industry clusters, but through the lens of the skills, abilities and know-how of workers instead of businesses. This perspective is especially valuable in any region that must

Industry Clusters at the Regional Level



Top 3 Industry Clusters per County



Industry Cluster Classifications

- Arts, Entertainment, Recreation and Visitor Industries
- Advanced Materials
- Agribusiness, Food Processing and Technology
- Apparel and Textiles
- Biomedical/Biotechnology (Life Sciences)
- Business and Financial Services
- Chemicals and Chemical Based Products
- Defense and Security
- Education and Knowledge Creation
- Energy
- Forest and Wood Product
- Glass and Ceramics
- Information Tech and Telecommunications
- Manufacturing Supercluster
- Mining
- Printing and Publishing
- Transportation and Logistics

Regional Occupation Clusters, 2009

undergo a major economic renewal due to the dislocation of one of its major industries or natural disaster. In a global economy, any region's unique strength starts with its brainpower, the skills, education and experience of its residents. Until recently, economic developers have had very limited tools to understand the brainpower embedded in their region. Occupation cluster analysis provides a powerful, promising new tool for measuring these assets.

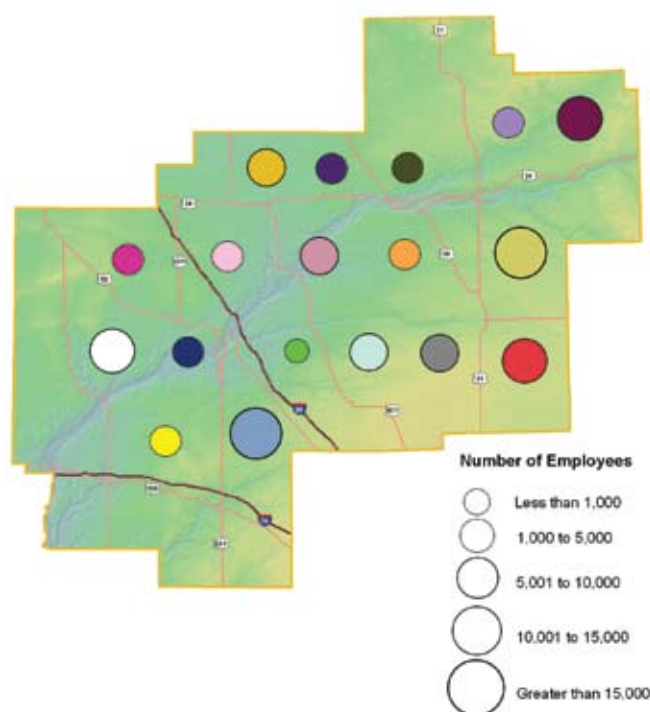
In the Hoosier Heartland region, the two largest occupation

clusters are skilled production workers: technicians, operators, trades, installers and repairers, together with legal and financial services and real estate workers. These two are followed by healthcare and medical science workers; primary/secondary and vocational education, remediation and social services workers; and managerial, sales, marketing and human resource (HR) workers. Again, the counties of the region vary quite considerably in terms of their occupational specializations – for example, Howard County is highly specialized in the engineering and related sciences cluster, as well as that of the skilled production workers. Tippecanoe County specializes in postsecondary education and knowledge creation; skilled production work; and health care and medical science – especially medical technicians.

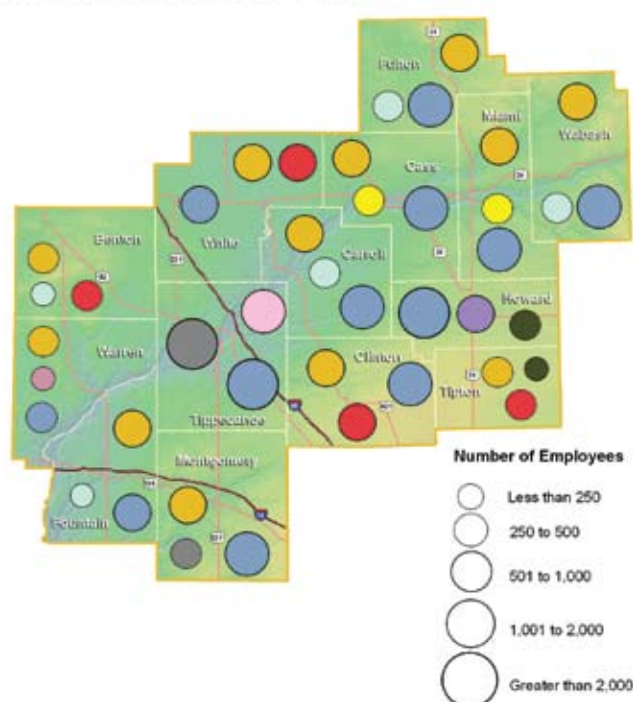
Taken together, industry and occupation cluster analysis enable local and regional stakeholders to:

- understand their local workforce and educational situation within the broader regional economic development context,
- use this information in bridging the gap between workforce and economic development when constructing a regional economic development strategy,
- use their local and regional occupation cluster mix to diagnose how well-positioned the region and its communities are to participate effectively in a knowledge-based innovation economy, and
- determine how well occupation and skills cluster strengths align with the region's business and industry cluster strengths

Occupation Clusters at the Regional Level



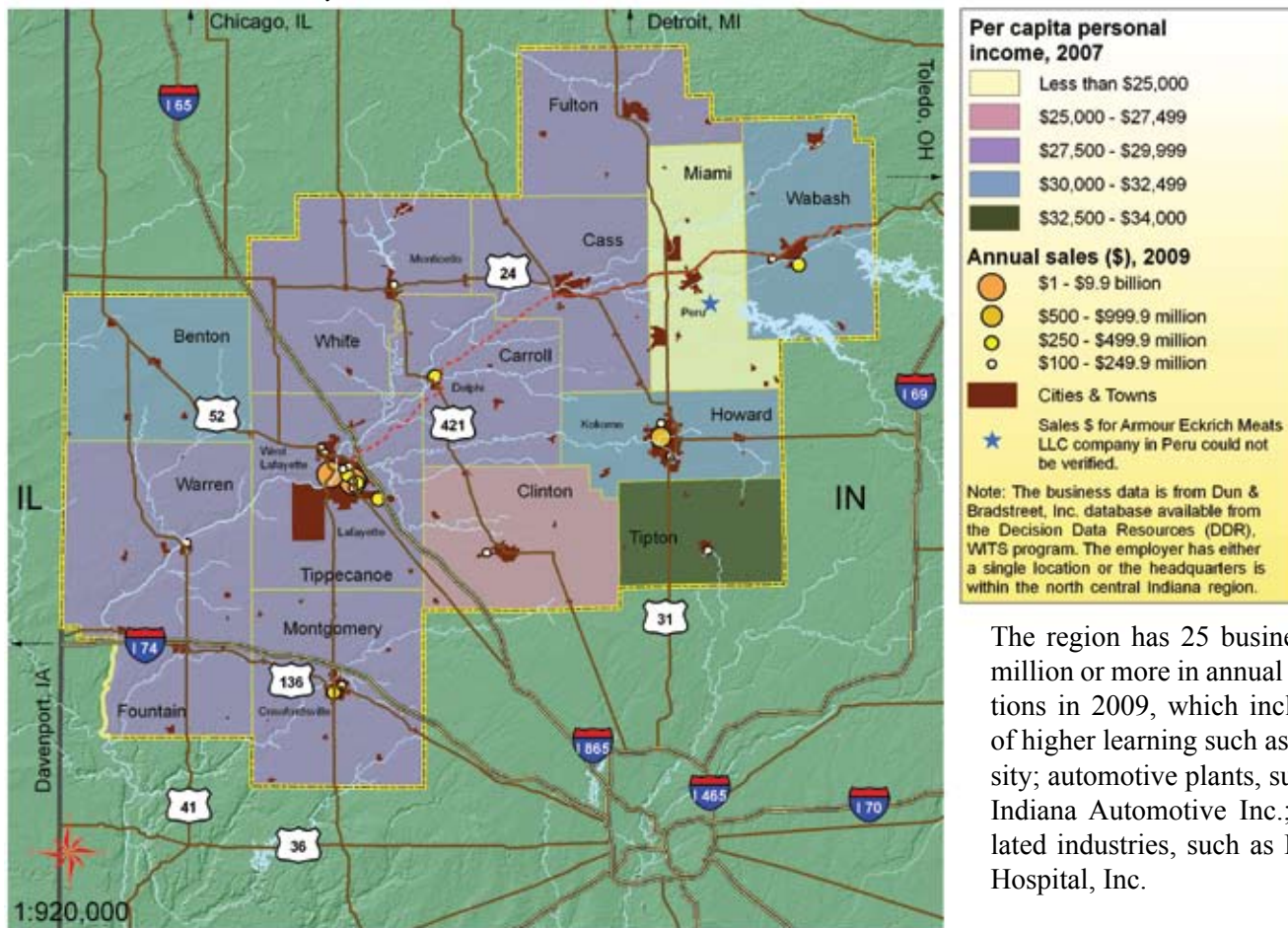
Top 3 Occupation Clusters per County



Occupation Cluster Classifications

- Agribusiness and Food Technology
- Arts, Entertainment, Publishing and Broadcasting
- Building, Landscape and Construction Design
- Engineering and Related Sciences
- Health Care and Medical Science (Aggregate)
- Health Care and Medical Science (Medical Practitioners and Scientists)
- Health Care and Medical Science (Medical Technicians)
- Health Care and Medical Science (Therapy, Counseling, Nursing and Rehabilitation)
- Information Technology (IT)
- Legal and Financial Services, and Real Estate (L & FIRE)
- Managerial, Sales, Marketing and HR
- Mathematics, Statistics, Data and Accounting
- Natural Sciences and Environmental Management
- Personal Services Occupations
- Postsecondary Education and Knowledge Creation
- Primary/Secondary and Vocational Education, Remediation & Social Services
- Public Safety and Domestic Security
- Skilled Production Workers: Technicians, Operators, Trades, Installers & Repairers

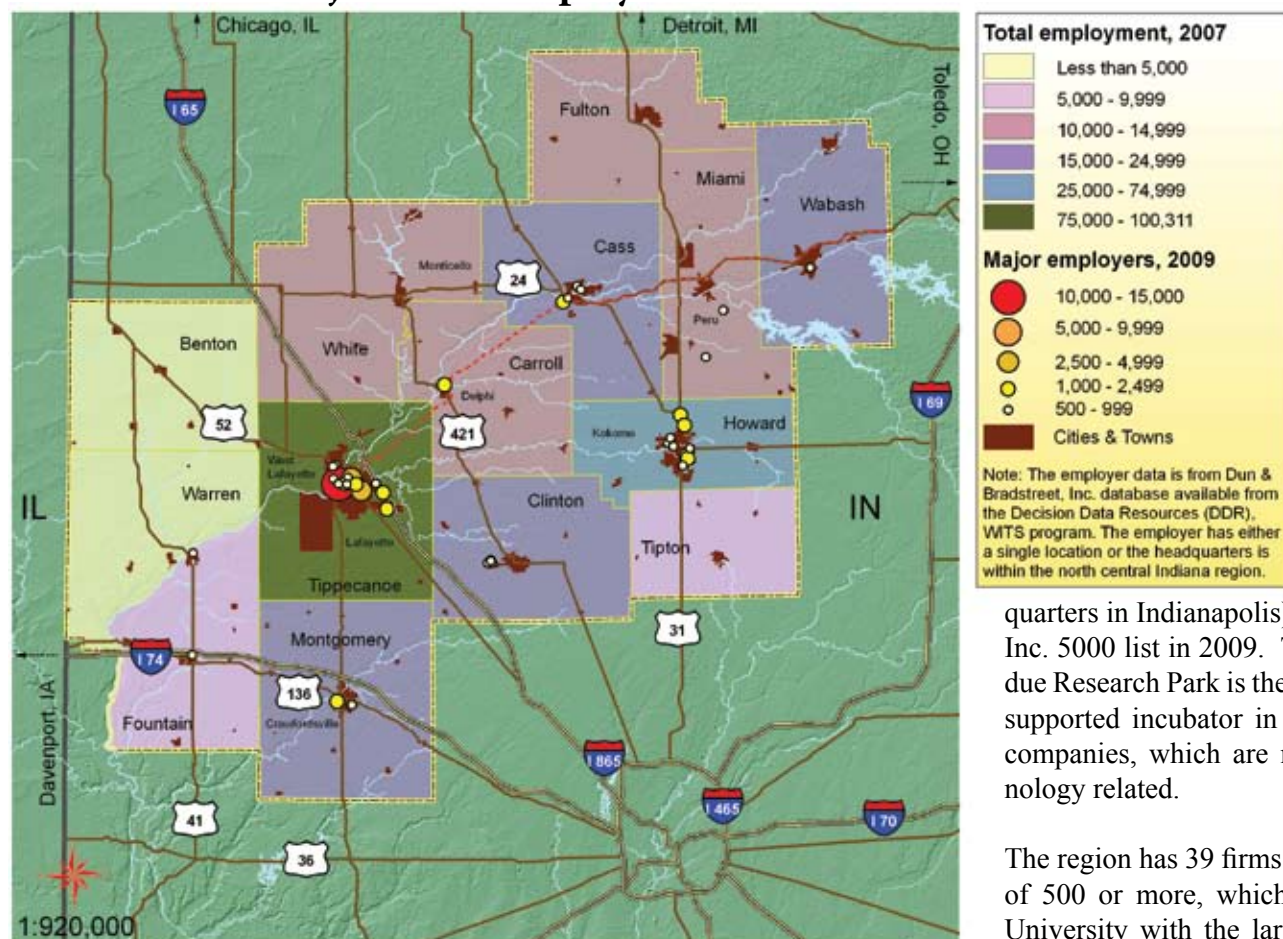
Major Local Businesses



The region has 25 businesses with \$100 million or more in annual sales or transactions in 2009, which include institutions of higher learning such as Purdue University; automotive plants, such as Subaru of Indiana Automotive Inc.; and health related industries, such as Lafayette Home Hospital, Inc.

Two companies from the Purdue Research Park in West Lafayette (one with head-

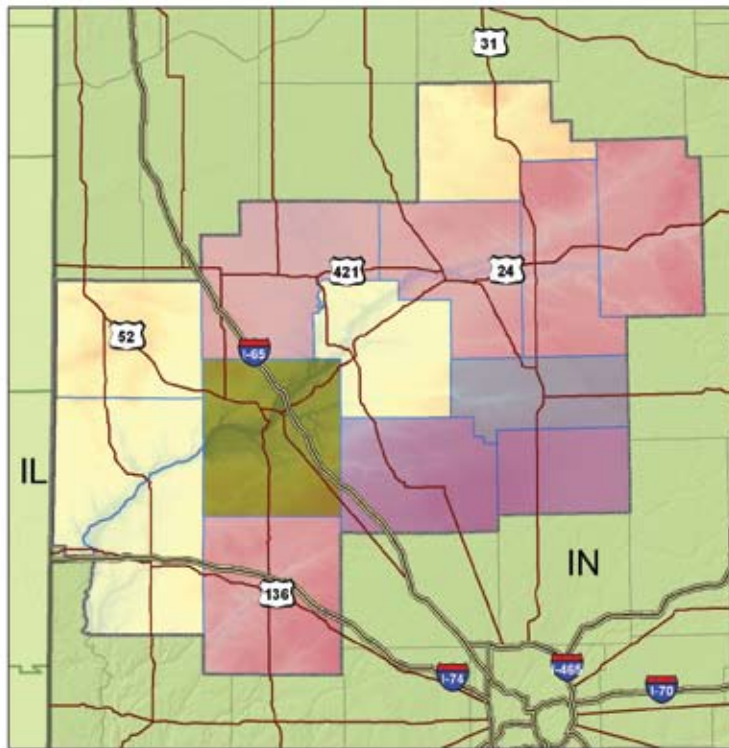
Major Local Employers



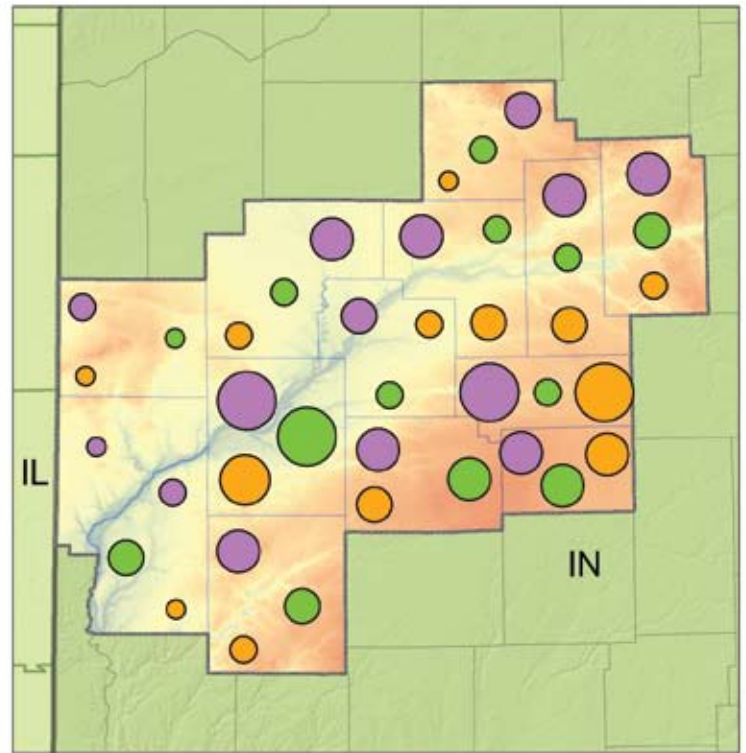
quarters in Indianapolis), made it onto the Inc. 5000 list in 2009. The 725-acre Purdue Research Park is the largest university supported incubator in the US with 160 companies, which are mostly high technology related.

The region has 39 firms with employment of 500 or more, which includes Purdue University with the largest regional em-

Intellectual Property and Innovation

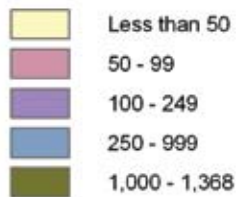


Patents, 1996-2006



Patents by Top Three Technology Sectors

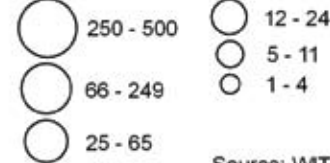
Total Patents



Technology Sectors



Number of Patents, 1996-2006



Source: WITS, Decision Data Resources (DDR)

ployment of 15,000. Quite a few of these firms are single location companies or have headquarters in the region.

Total full- and part-time employment in the region's counties varies from 100,311 in Tippecanoe County to 3,117 in Warren County in 2007. In total employment, Tippecanoe County ranked 8th out of 92 Indiana counties whereas Warren County ranked 90th. Tippecanoe County ranked 15th in the number of jobs per 1,000 population (614) and 14th in the number of jobs per 1,000 labor force (1,227). Howard County, with 611 jobs per 1,000 population and 1,365 jobs per 1,000 labor force, ranked 16th and 8th, respectively, in Indiana in 2007.

Per capita personal income in the region varied from \$33,928 in Tipton County to \$24,639 in Miami County (2007). The average per capita personal income for

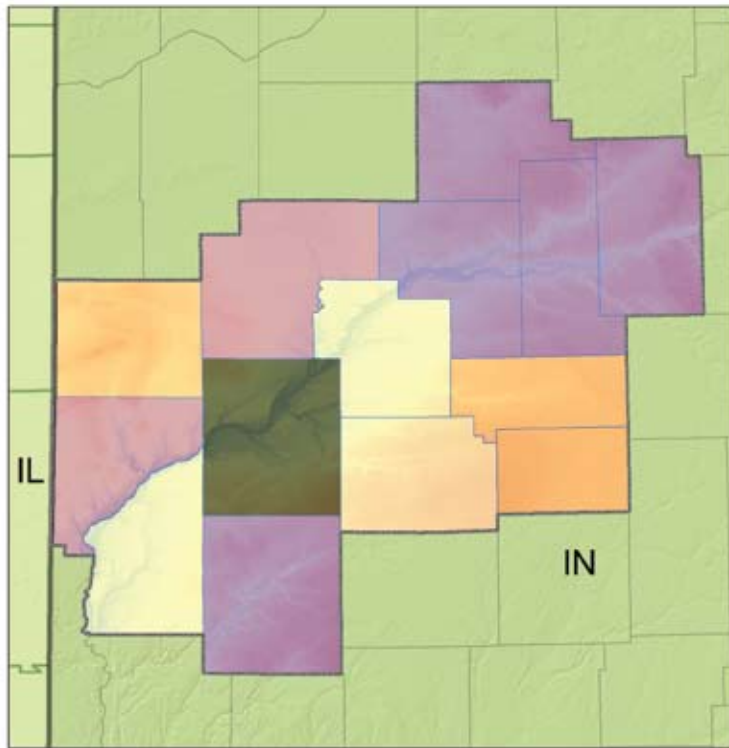
the region was \$29,230 and for Indiana, it was \$30,326. Tipton, Howard, Benton, and Wabash counties had per capita personal income that exceeded the average income for Indiana in 2007.

Intellectual Property and Innovation: Between 1996 and 2006, regional residents created 2,966 patents approved by the US Patent and Trademark Office (USPTO). Total patents for individual counties varied from 1,368 in Tippecanoe, to 20 in Benton County. With 836 patents, Howard County holds the second highest total. Purdue University and businesses such as Caterpillar and Subaru contribute to the large number of patents in Tippecanoe County. Similarly, Indiana University Kokomo and businesses such as Delphi account for the high number of patents in Howard County. The Delphi Corporation in Kokomo was a pioneer in developing active safety technologies for automobiles

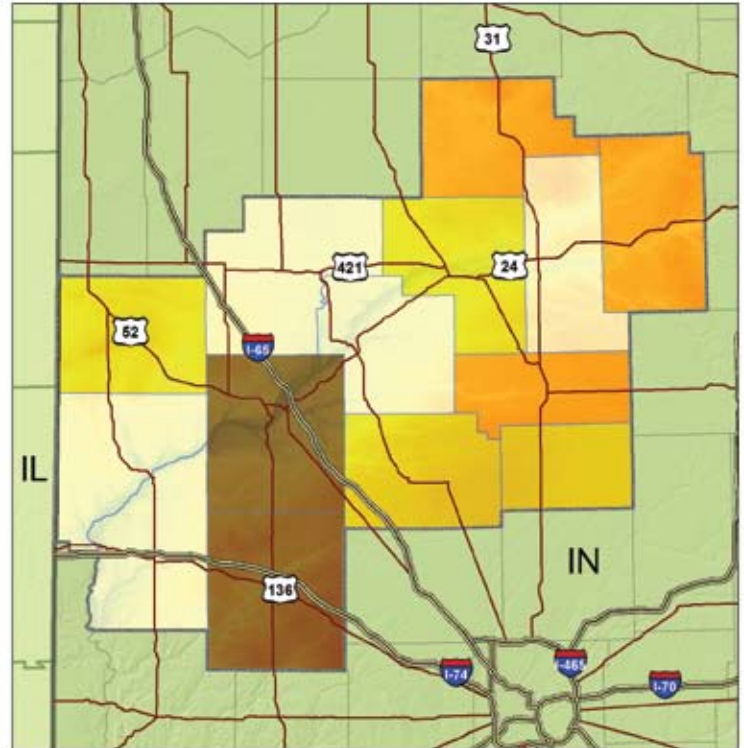
and fleet vehicles. Their cutting-edge research includes human-machine and human-computer interactions, as well as early warning systems to avoid crashes.

The top three technology sectors for patents in the region were advanced manufacturing, information technology, and life sciences. Almost every regional county has patents filed under these technology categories. Advanced technology had a total of 975 patents, IT had 846, and life sciences had 653 patents. Tippecanoe County also had 157 patents filed under advanced materials. The inventors in the region hold patents in logistics, energy, environment, aerospace and defense, and industrial production as well. Clearly, the region has the capacity to embrace a high-tech, knowledge-based innovation economy.

Federal Investments, 2000-2006



Federal Research & Development (\$)



Federal Enterprise & Entrepreneur Programs (\$)

R & D (\$), 2000 -2006



Enterprise & Entrepreneur (\$), 2000-2006



Note: R & D and Enterprise & Entrepreneur Programs (\$), courtesy of WITS, Decision Data Resources (DDR). The values are based on \$ 2006 and loans and grants are included.

Federal investments include dollars invested for research and development (R & D) and enterprise and entrepreneurial programs through 2000 to 2006. The R & D investments have a diverse portfolio of research programs in agricultural science, defense, marine science, environmental science, information science as well as technology, biotechnology, geology, and hazard research, etc.

Due to the presence of Purdue University, Tippecanoe County is the only county in the Hoosier Heartland region which received a total federal funding of \$252 million for R & D in almost every area of research from 2000-2006 according to the Innovation-Economy 360 (IE 360) database. Agricultural sciences, computer sciences, engineering, math and physics constituted the largest share of the grant. Other counties received funding through

the USDA for a dairy program and Montgomery County received R & D funding for math and physics during 2000 to 2006. Generally, federal R & D investment goes to universities, research institutions, government laboratories and similar institutions.

Enterprise and entrepreneur programs include federal programs for small businesses, rural businesses, minority businesses, the Native American Program and other such purposes. These are grants as well as loans. Examples include Small Business Innovation Research (SBIR), Rural Business Enterprise Grants, and Small Business Loans, etc. Every county in the Hoosier Heartland region received federal dollars for enterprise and entrepreneur programs with Tippecanoe and Montgomery counties in the lead with investments between \$5 and \$7.5 million.

Fulton, Wabash, and Howard counties followed with investments between \$1-\$5 million between 2000 and 2006.

Investments in research and development are considered as inputs for innovation in communities and regions. Similarly, investments in enterprise and entrepreneurial development are essential for economic development in the communities. In addition to federal dollars available for R & D, communities and businesses have access to State of Indiana resources, such as Venture Capital Investment Tax Credits, and 21st Century Funds. Local venture capital and R & D funding through private investors is also available as well as several revolving loan programs.

Regional Tourism Assets

The Hoosier Heartland region has numerous and varied tourism and recreation assets. The region has 62 annual festivals and fairs, highlighted by such festivals as the Feast of the Hunter's Moon, a recreation of the annual gathering of the French and Native Americans which took place at Fort Ouiatenon each fall near West Lafayette. Art Around the Square, held around the magnificent Tippecanoe County Courthouse in Lafayette on Memorial Day weekend each year, is a festival which attracts artists and buyers from all over the country.

Each June, the city of Peru holds its annual Cole Porter Festival, fostering an appreciation for music and the arts by celebrating the life and music of the legendary composer born and raised in Peru.

Also known as the Circus City, Peru is home to the International Circus Hall of Fame and each July holds the Circus City Festival, a week-long event highlighting the rich circus heritage of Miami County, including an amazing three-ring circus with over 200 skilled performers, aged 7 to 21.

For the sports-minded, the Hoosier Heartland region offers 31 golf courses, including the Birk Boilermaker Golf Complex at Purdue University, which is home to the Kampen Golf Course, designed by world-renowned golf course architect, Pete Dye.

Four motor speedways, one drag racing strip, and one motocross facility are located in the region, tapping into the well-known racing heritage of Indiana. The motor speedways are designed primarily for sprint car, midget car, and thunder car events and have served as proving grounds for a number of currently active drivers in the National Association for Stock Car Auto Racing (NASCAR) and the IZOD IndyCar Series.

While the region does not host any professional sports teams, it does have a rich tra-

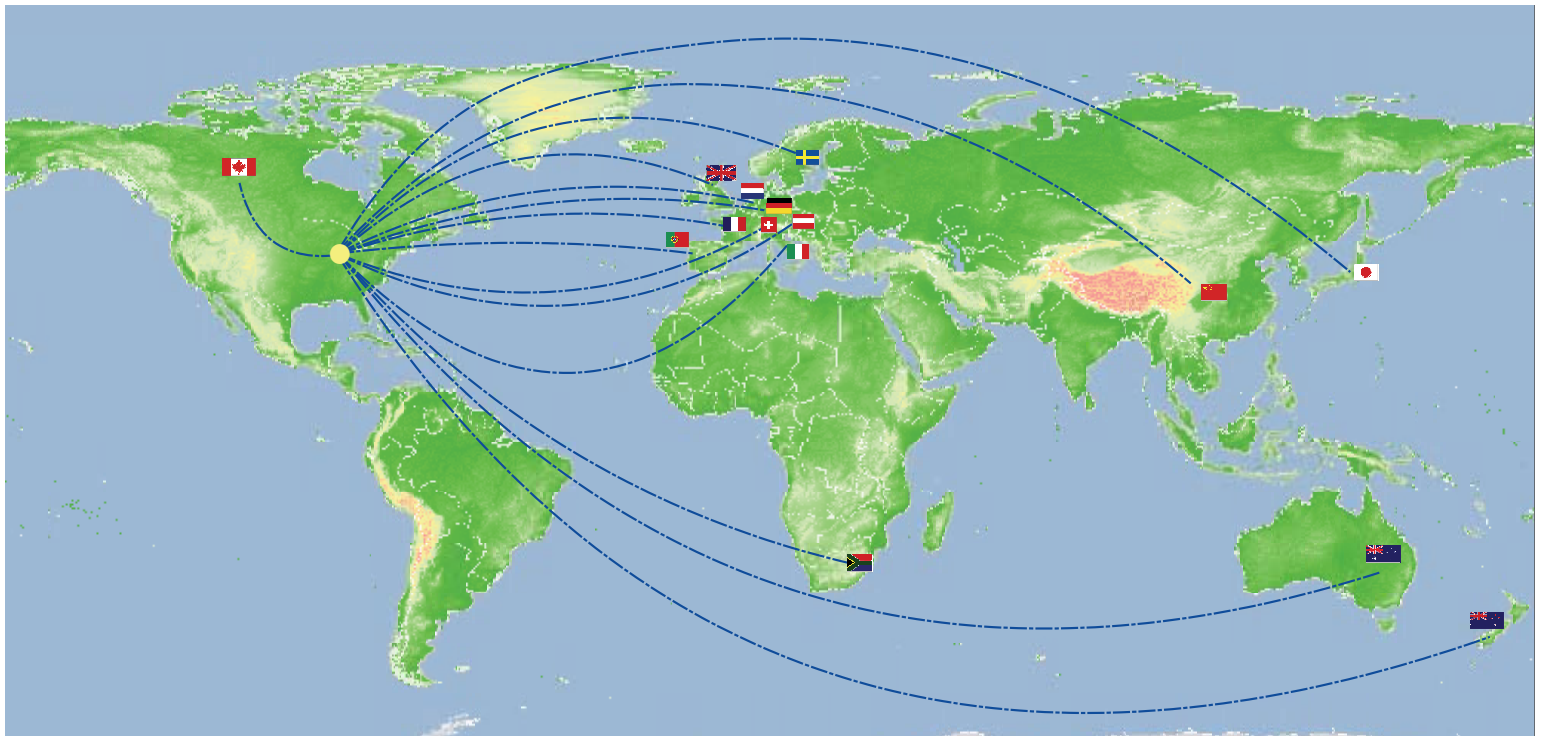
dition of collegiate athletics, led primarily by the NCAA Division I Purdue Boilermakers. In football, Purdue has traditional annual rivalry games against Notre Dame (the Shillelagh Game, dating back 53 years), and Indiana University. The Old Oaken Bucket Game, dating back 85 years, is one of the oldest rivalries in the United States.

Manchester College and Wabash College athletic teams both compete at the NCAA Division III level. Each year, Wabash College competes against DePauw University

(Indiana) in the Monon Bell Classic football game, named after the 300-pound locomotive bell from the Monon Railroad which is given to the winner. The Monon Bell Classic is another of the oldest rivalries in college football, dating back to 1890 when the first game was played. The game has received national media coverage through the years and has been televised on national networks such as ABC and ESPN2, almost unheard of for any Division III school.



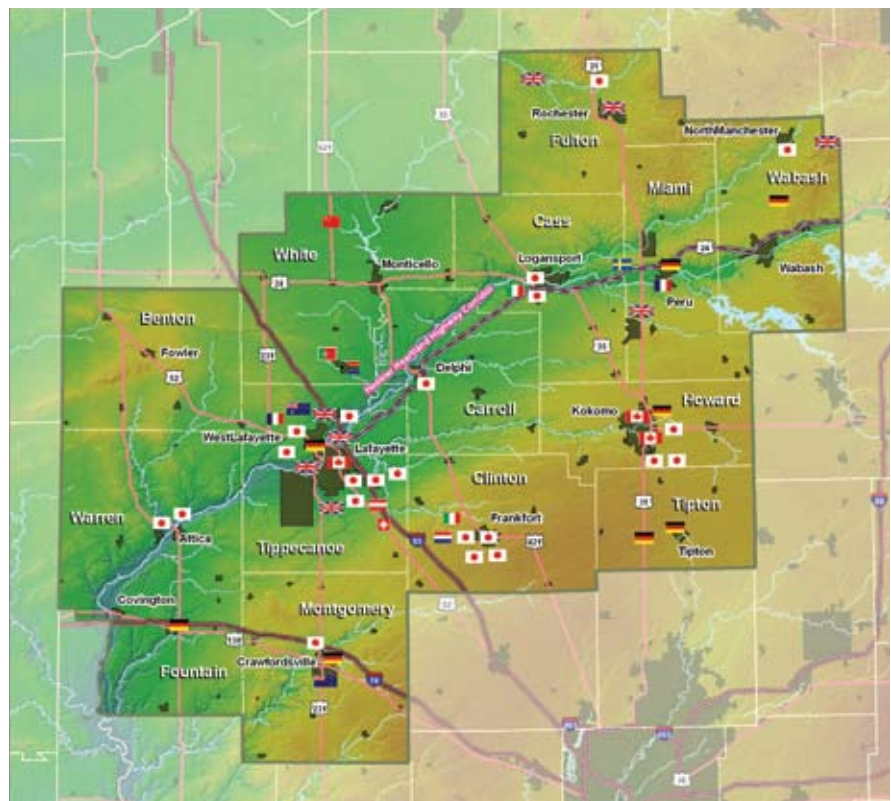
Foreign-Owned Firms, 2008

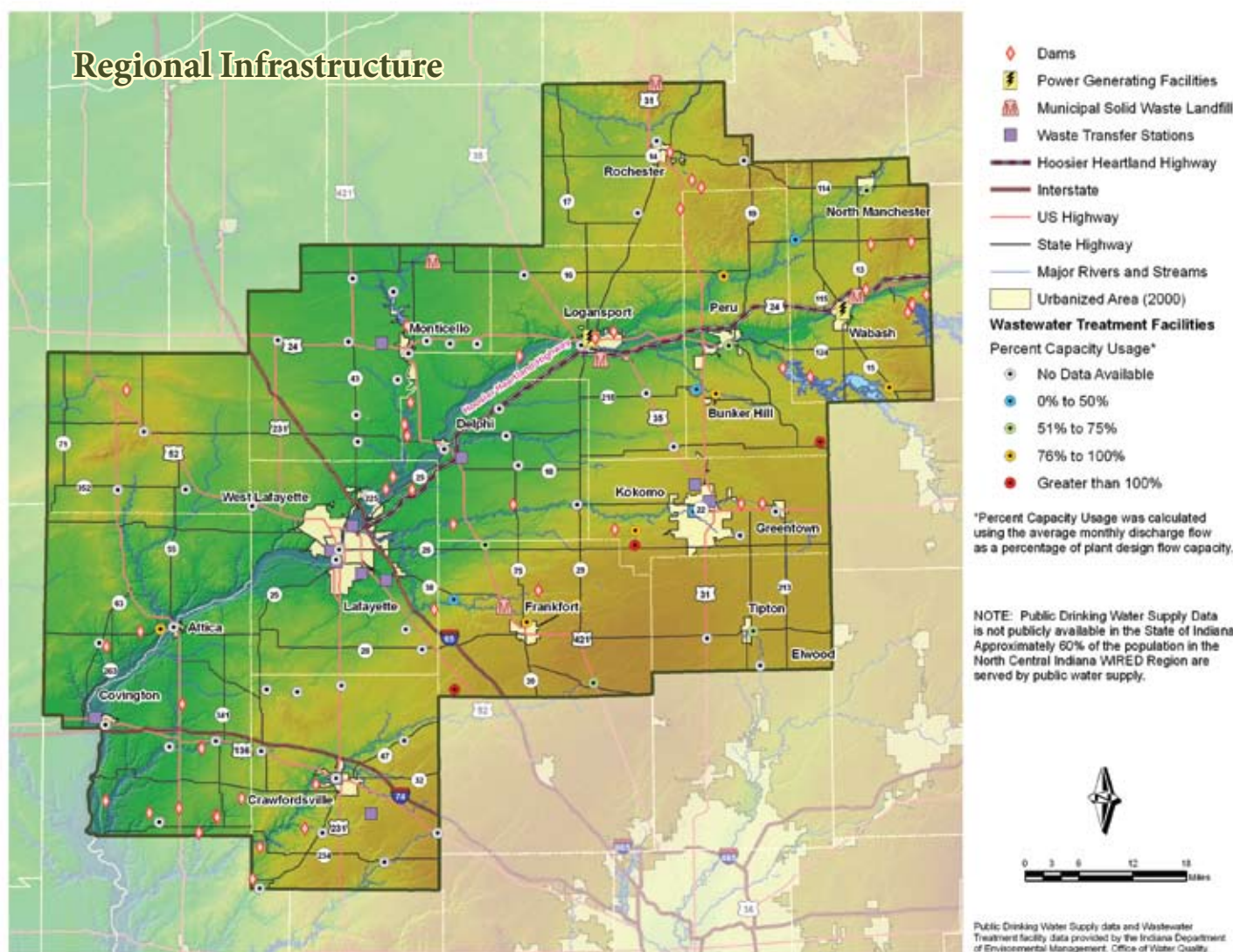


National Origins of Foreign-Owned Firms, 2008

	Australia		Germany		Portugal
	Austria		Italy		South Africa
	Canada		Japan		Sweden
	China		Netherlands		Switzerland
	France		New Zealand		United Kingdom

The Hoosier Heartland region has a strong connection with internationally owned companies. 54 companies representing 15 countries have an established presence within the region. Japan has the largest presence, with 22 companies, while Germany and the United Kingdom both have 8 companies in the region. The most prominent of these companies, in terms of greatest number of employees are Subaru of Indiana and Indiana Packers Corporation (a manufacturer of retail and food service pork products).





Regional Infrastructure: Regional systems are among the most commonly addressed areas in initiatives to improve efficiency and collaboration at the regional level. Regional systems include air and water quality; water control and distribution; waste collection and disposal; power and light distribution; transportation of people and goods; and communications of all types. These basic systems go a long way towards providing for a good quality of life in any locality, and are also essential for effective economic development.

The other side of the “livability” question includes social and cultural factors, as well as the development of a pleasant environment for everyday living.

Regional Water Systems: The Hoosier Heartland Region has 79 municipal wastewater treatment facilities with ac-

tive permits, according to the Indiana Department of Environmental Management (IDEM) data. There are currently 72 municipal public water supply systems within the region. According to IDEM data, approximately 60% of the region is served by public water supply, which is below the state average (approximately 73%). According to Indiana law, public water supply data is not available for public use, which is why it is not mapped in this report.

The region has 46 dams according to data collected by the EPA. Three are used for public drinking water supply purposes, 4 for flood control purposes, 2 for hydro-electric purposes, and 37 for recreation use. Of these, 25 dams have been rated as high or significant hazard dams based on downstream population and downstream land use.

Regional Solid Waste Management Districts: The Hoosier Heartland region is comprised of 11 solid waste management districts (SWMD), 8 of which include only a single county. SWMDs are formed in an effort to help local governments in proper waste disposal and recycling efforts. Currently, there are 9 multi-county SWMDs in the State of Indiana, covering 32 counties. There are 60 single county SWMDs in the State.

The Hoosier Heartland region has 14 waste transfer stations and 5 municipal landfill sites, including the Liberty Landfill in White County and the Oakridge Landfill in Cass County, which both have begun producing energy from methane gas.

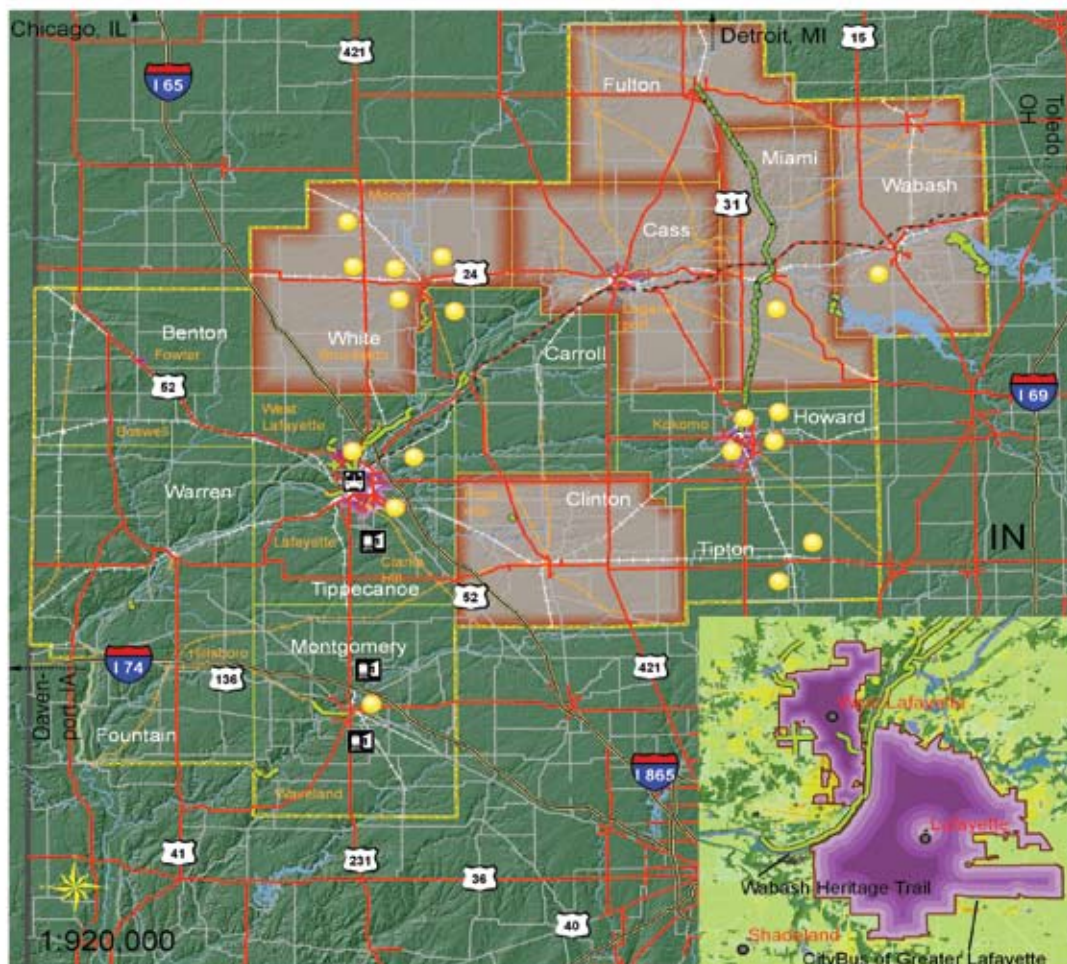
Regional Transportation: Transportation infrastructure provides the social and economic backbone of our communities. Where we live, work, play and shop depend on connectivity and accessibility provided by the transportation system. The region is well endowed with an advanced transportation system with various transportation modes available, such as highways, freight and commuter railroads, inter-city bus system, public transit, intermodals, alternative fuel stations, and different kinds of public and private airports, runways and heliports.

There is excellent connectivity to major metropolitan areas and gateways, such as Chicago, Detroit, Indianapolis, Cincinnati, Columbus, Toledo, Davenport, and Louisville through the interstates and arterial roads. I-65 and I-74 interstates traverse the Hoosier Heartland region. Additionally, a network of arterials and collectors, which include US and State highways are available. This forms a grid pattern of major roads in the region. An important arterial under development is the Hoosier Heartland Highway connecting Lafayette to Fort Wayne and further extension to Toledo by developing the Fort to Port corridor. This will provide easy access to port facilities to the east. The ports

Indiana Solid Waste Management Districts (SWMD)



Surface Transportation Infrastructure



Transportation

- Alternative Fuel Stations
- Amtrak Stations
- Greyhound Bus Station
- Trails
- Nickel Plate Trail

Railroads

- Abandoned
- In use

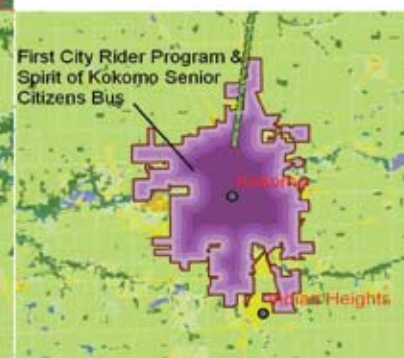
Highways

- Hoosier Heartland Highway
- Interstates
- Arterials
- Collectors

Transit

- Community Public Transit
- Countywide Public Transit

Note: Fixed-route and demand-responsive and rural and urban public transportation services are shown.



located to the north in the Great Lakes are easily accessible by I-65.

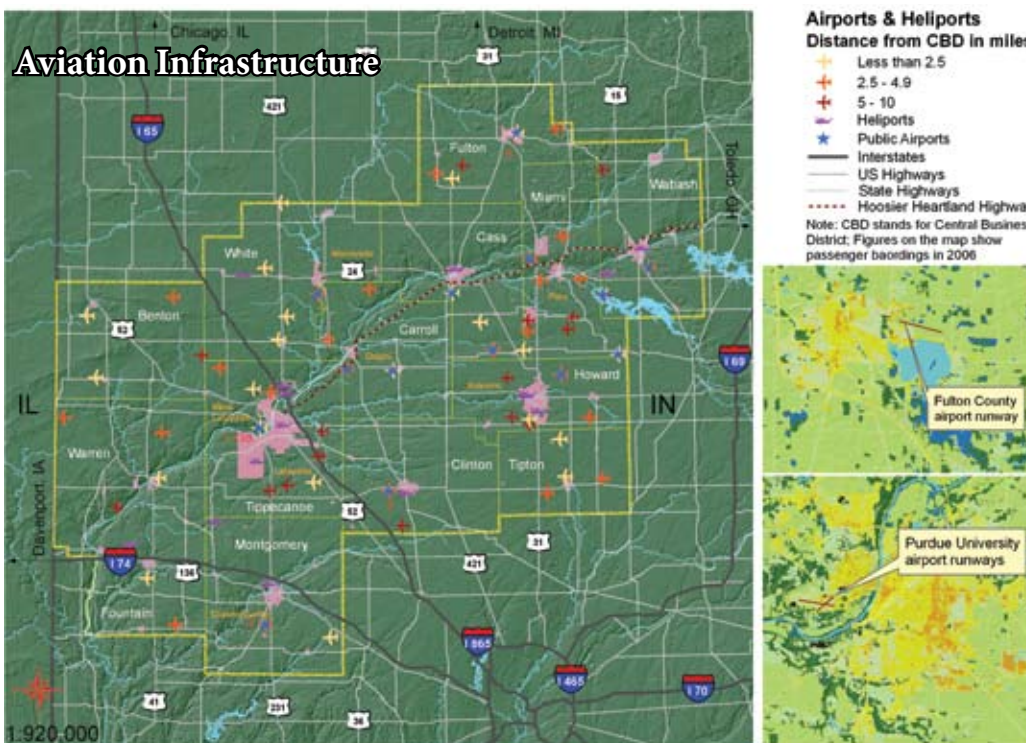
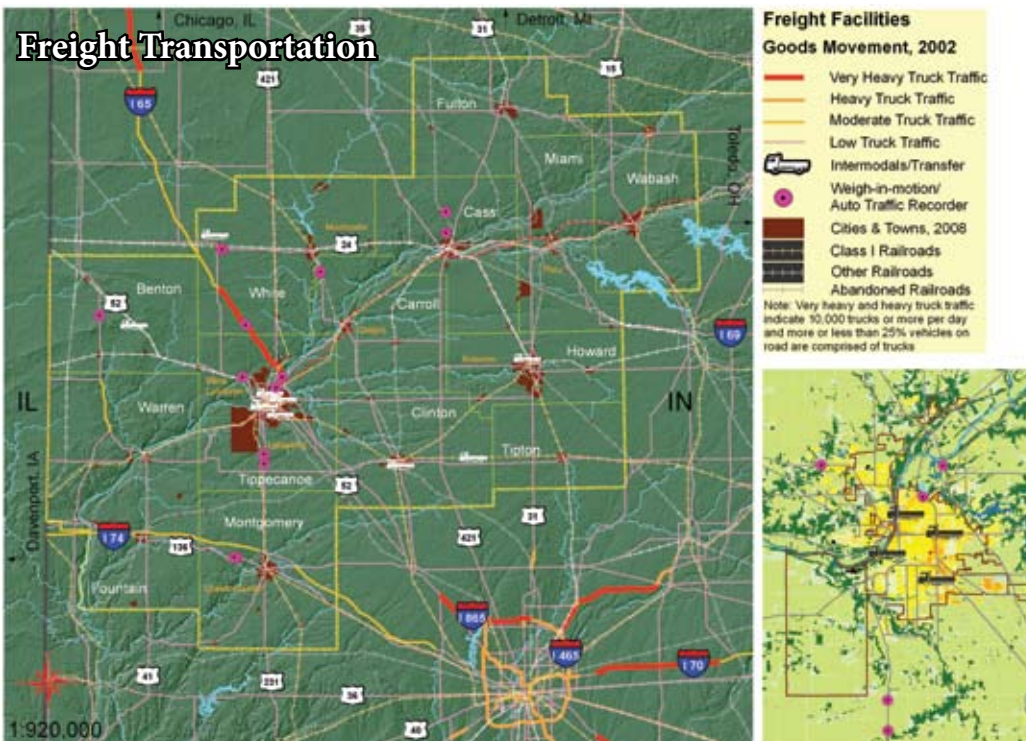
Lafayette is emerging as a multimodal hub with a Greyhound inter-city bus station, Amtrak inter-city rail, freight railroad, and I-65 located in close proximity. With easy access to Indianapolis airport, Chicago O'Hare, and Purdue's airport, Lafayette has all types of transportation modes available, a resource usually available only to major metropolitan areas.

Several small communities in the region are served by voluntary public transit systems, which are demand-responsive systems in many cases. Fulton, Miami, Wabash, Cass, Clinton, and White have countywide transit systems. Other counties in the Hoosier Heartland region could benefit from countywide or regional public transit systems, which could provide accessibility for jobs, healthcare to elder citizens, and households without means

of transportation.

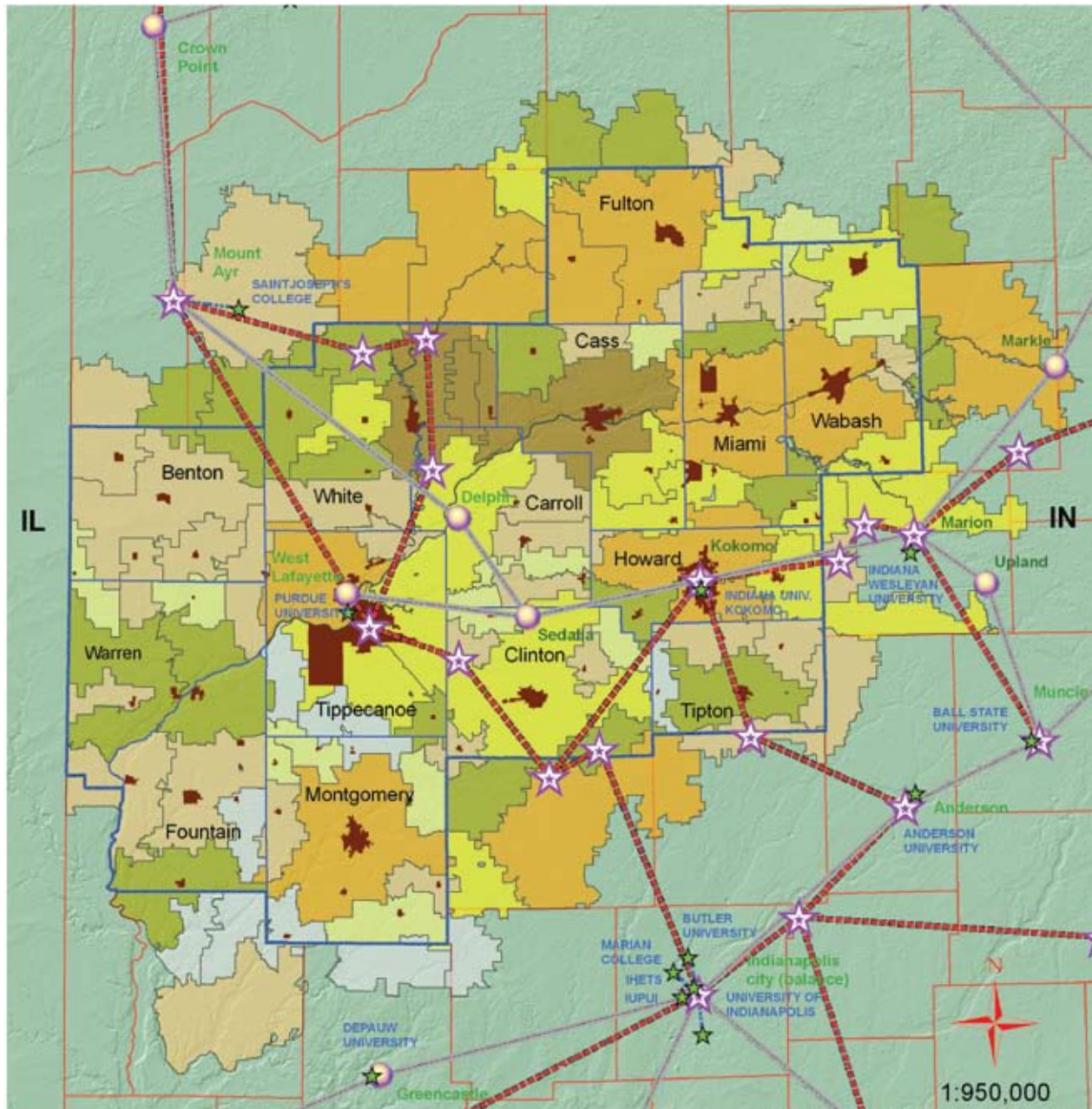
I-65, I-74 and arterial roads in the Hoosier Heartland region carry a variety of freight including agricultural products, milk products, motor parts, machinery, etc. The west central counties, such as White, Tippecanoe, Benton, and Clinton have intermodal or transfer stations where the products are transferred between different modes of transportation (for example, truck to train). Similarly, Howard County also has an intermodal station. The intermodals and transfer stations are served by two transportation modes, rail and truck.

For air transportation, the region is well served by a network of public and private airports and runways including heliports, short take-off and landing (STOL) ports, ultralight aircrafts and a sea plane base. The uses vary, including private business, university business, research, recreation, agriculture purposes, medical evacuation, emergencies, military, and political visits. Almost every county has one public airport, other than Benton, Warren, Fountain, and Tipton counties. It should be noted that airports are a significant resource for local economic development purposes, and in many cases private airports are developed with federal and state support. Airports can support existing and proposed industrial districts in the counties.



Broadband and Optical Fiber Network: The map of broadband service providers by ZIP code shows that a majority of ZIP code areas within the region have different types of broadband services available. A few areas within White and Cass counties have as many as six different types of broadband service providers. Based on the available data, it is evident that the centrally located counties in the region have better access to fiber optic infrastructure than the northern and southern counties. Several cities and towns have an Indiana Fiber Network presence and connectivity to the fiber optic network. Several universities, colleges, and other institutions are part of the I-Light network, a unique initiative between institutions, state government,

Broadband and Optical Fiber Network



Broadband Service Provider Types by Zipcode, 2009



- I-Light, City to Institution
- I-Light, City to City linkages
- I-Light, Cities
- ★ I-Light, Institution
- Indiana Fiber Network (IFN)
- ★ IFN presence/members

Note: IFN data, courtesy of Indiana Fiber Network, <http://www.indianafiber.net/maps.htm>. I-Light is from <http://www.ilight.net>. I-Light is part of Internet2 Initiative. The network data is schematic only.

Broadband service provider type data, from the Indiana Office of Utility Consumer Counselor (OUCC). Provider types are DSL, Cable modem, Fiber optic, Wireless, BPL, Axdsl, Mobile, and other.

and private sector broadband providers in Indiana. This fiber optic network supports teaching, learning, research, and technology transfer, such as high-quality video transmission for distance-based learning. Through the partnership of Indiana's institutions, the state has access to Internet-2, an international initiative for advanced networking applications for scientific research as well as community

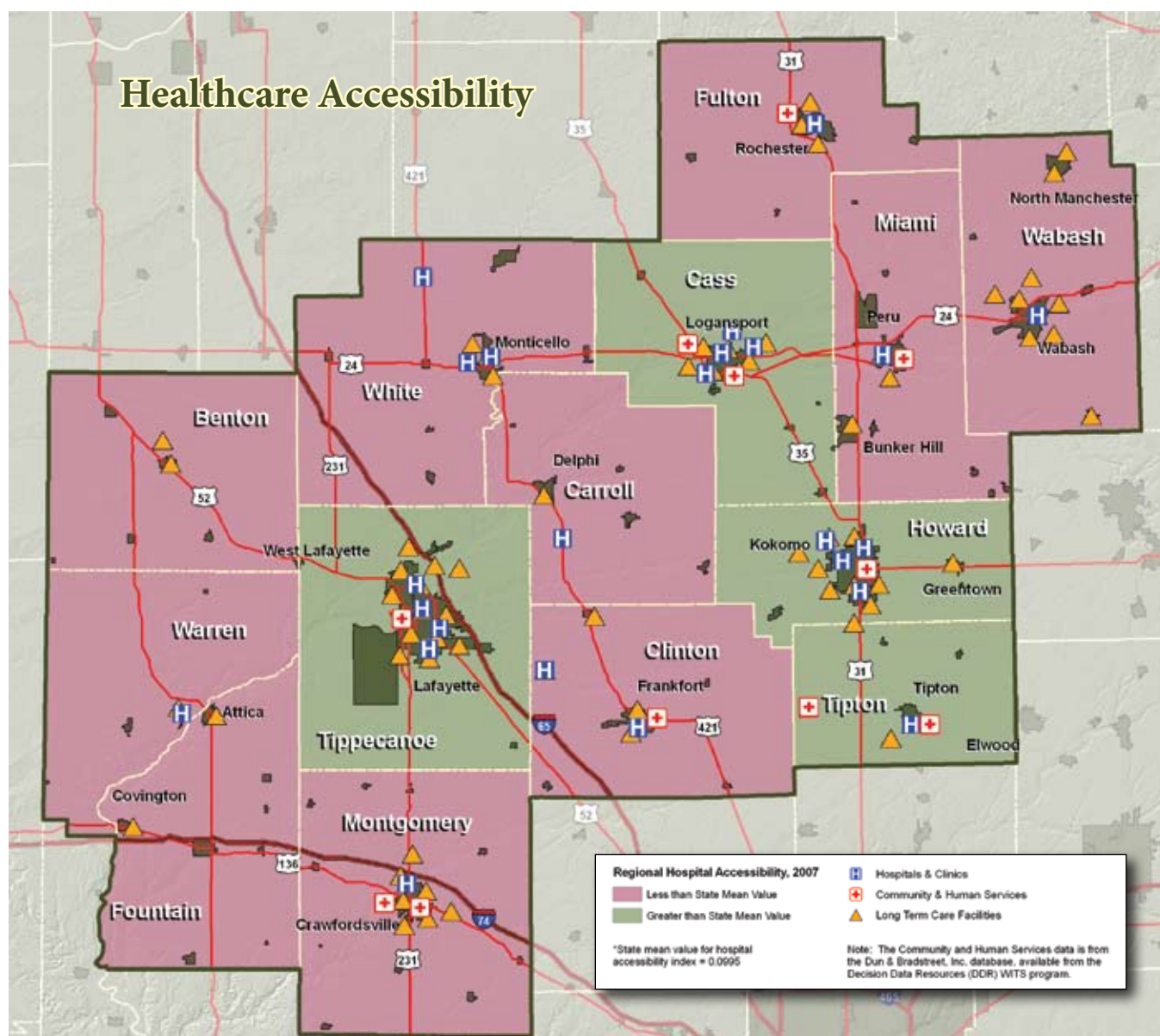
learning. Indiana is one of 37 states connected to the Internet-2 backbone.

Health and Hospital Accessibility:

According to the Rural Assistance Center (www.raconline.org), a partnership organization with the Center for Rural Health and Rural Policy Research Institute (RUPRI), Indiana had 122 hospitals in 2008 of which 38 are located in rural areas. There are 59 rural health clinics and

35 hospitals identified as Critical Access Hospitals in Indiana. According to Indiana State Department of Health data, the Hoosier Heartland region has 18 hospitals and 6 rural health clinics. Seven hospitals in the region are considered Critical Access Hospitals. They are located in Peru, Frankfort, Williamsport, Tipton, Wabash, Monticello, and Rochester. The hospital types are diverse, including state, local,

Healthcare Accessibility



church, and proprietary hospitals. Sixty-seven long term care facilities are located in the region. Several facilities, such as the Council on Aging, family crisis centers, and the American Red Cross provide human services.

The map of hospital accessibility shows a good network of different types of health facilities available to regional communities. However, certain areas in the Hoosier Heartland region are designated as Health Professional Shortage Areas (HPSA). These include Warren and Fountain counties and parts of White and Howard counties. Certain parts of the region, which include areas in Miami, Cass, Carroll, Tippecanoe, Warren, Clinton, and Howard counties, are also designated as Medically Underserved Areas (MUA). The HPSA and MUA are designated by the federal

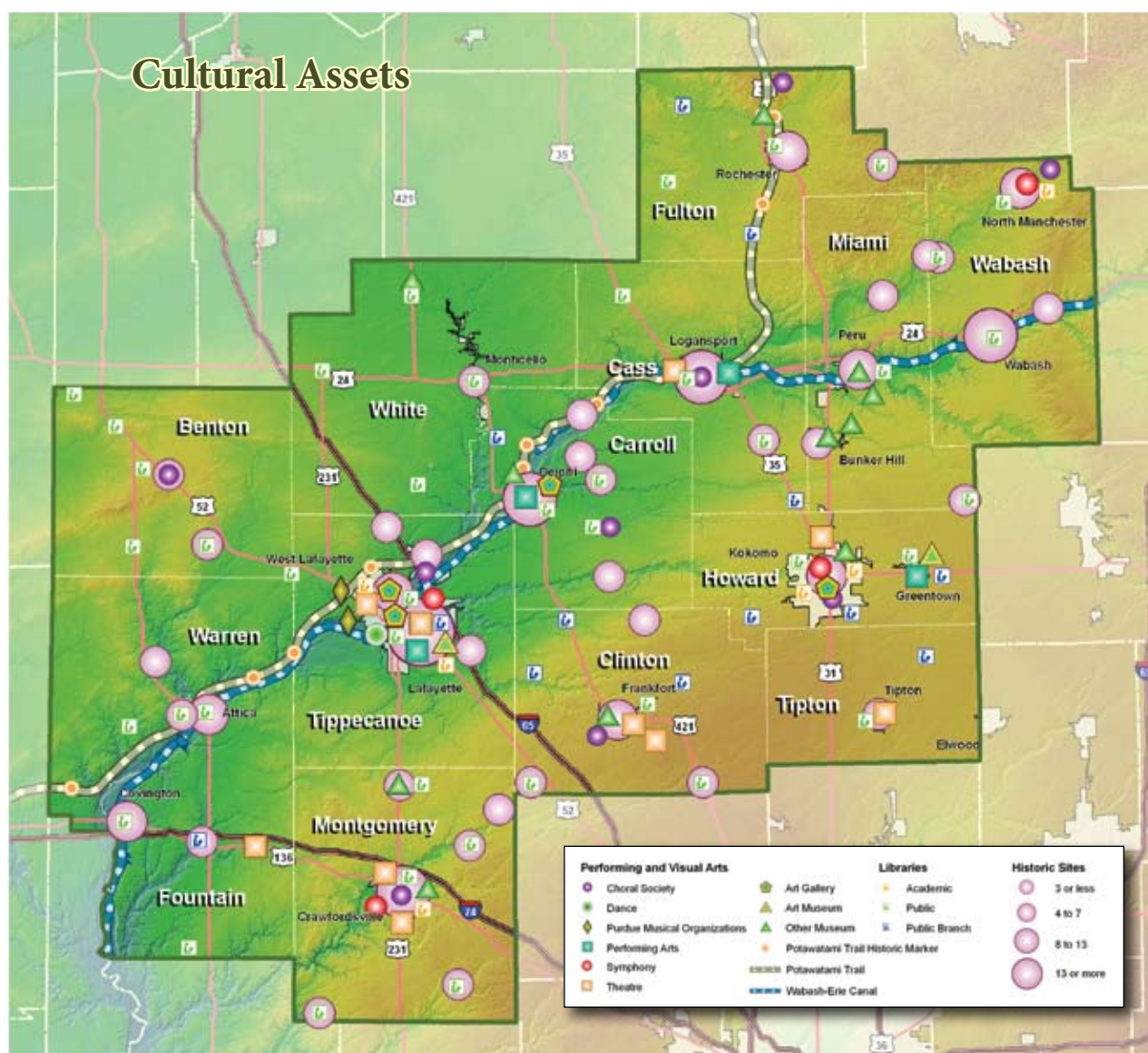
government in association with the State Department of Health. Clearly, the Hoosier Heartland region has opportunities available to develop regional health-based initiatives.

A health accessibility study by Purdue University scored counties by physical accessibility to hospitals and physicians. Distance measures were used to develop the accessibility index. Within the Hoosier Heartland region, Tippecanoe, Cass, Howard, and Tipton counties have hospital accessibility greater than the state average value. The other counties have lower values than the state average for hospital accessibility. This conforms to the general distribution pattern of hospitals and clinics in the region. Tippecanoe, Cass, and Howard counties each have 4 hospitals or clinics whereas Benton County has only

long term care facilities.

According to the Kaiser Family Foundation's state health facts, 11.9% of Indiana's total population had no health insurance coverage during 2007-2008 – considerably lower than the US average of 15.4% population lacking health insurance coverage. However, at the county level, the Census Small Area Health Insurance Estimates for 2005 reveal a great deal of variation, with the percent uninsured population varying from a high of 23.1% in Tippecanoe County to a low of 11% in Wabash and Howard counties. The uninsured rate for the entire region in 2005 was estimated by the Census at 15.4%.

Health-based Research: The Hoosier Heartland region has significant health-based research activities underway, primarily within Purdue University and



Purdue Research Park in Tippecanoe County. Health research centers include the Oncological Sciences Center, Bindley Bioscience Center, Purdue University Center for Cancer Research, and the Regenstrief Center for Healthcare Engineering. Similarly, Purdue Research Park has an emphasis on life sciences based in high technology start-up companies. Several companies are making commercial products out of research in biological and physiological sciences.

Cultural Heritage and the Arts: The Wabash River runs through the center of the Hoosier Heartland region, and provides the region with a common link to its history. Construction of the Wabash-Erie Canal began in 1832 and was completed in 1853. At the time of its completion, it was the longest canal in the United States, totaling 468 miles and reaching

from Toledo, Ohio, to Evansville, Indiana. A section of the canal has been rehabilitated for public enjoyment in a park situated in Delphi, Carroll County.

The region has a rich history that includes Native American tribes, such as Shawnee, Potawatomi, Miami, and Kickapoo and their historic figures, such as the Shawnee chief Tecumseh and his brother Tenskwatawa (the Prophet). Early European settlers, particularly French and English, constructed outposts such as Fort Ouiatenon, the first fortified European settlement in the region. The Native American settlement of Prophet's Town and the European settlement of Fort Ouiatenon were meeting points for fur traders, hunters, and early dirt farmers to exchange pelts, tools, and grains. The Battle of Tippecanoe, which took place in 1811 at the confluence of the Tippe-

canoe and Wabash Rivers near Prophetstown, between US soldiers and Tecumseh's Native Indian Confederation army led by Tenskwatawa, was the beginning of Tecumseh's war which continued until 1813.

The Wabash River also served as a pathway during the forced removal of 859 Potawatomi tribespeople from Plymouth, Indiana to Osawatimie, Kansas, beginning in the fall of 1838, and was known as the Potawatomi Trail of Death (now renamed the Trail of Courage). Resolutions passed by the state legislatures of Indiana, Illinois, Missouri, and Kansas led to the trail being declared a Regional Historic Trail. There are now 76 historical markers along the Trail of Courage Regional Historic Trail.

The region has a strong foundation in the



Once a trading post established by the French in 1717, Fort Ouiatenon in Tippecanoe County is now home of the annual Feast of the Hunters' Moon. Photo by PCRD staff.

visual and performing arts. Purdue University is home to Purdue Musical Organizations (PMO), Purdue University Bands, and Purdue Convocations. In existence for 75 years, PMO is a world-renowned professional entertainment organization, bringing pleasure to audiences everywhere in over 200 performances every year. Established in 1886 (despite having no music school), Purdue University Bands feature the Purdue Symphony Orchestra, and the Purdue All-American Marching Band, home of the World's Largest Drum.

Purdue Convocations was initiated in 1902 and is one of the oldest collegiate performing arts presenters in the U.S. Its mission is to connect artists and audiences through entertaining and educational professional arts programs. Purdue is also home to the Purdue Repertory Dance Company, the Purdue University Theatre, the Purdue University Galleries and numerous cultural centers.

Including the many organizations found at Purdue, the region has 5 symphony orchestras (with orchestras at both Wabash College and Manchester College), choral societies in 9 of 14 counties, 10 local and regional theatre organizations, one dance company, 4 performing arts centers, several art galleries, 2 art museums, and 12 museums whose content provide knowledge and connection to the cultural history of the region.

The region is home to 61 libraries, 55

public and 6 academic. As mentioned by one stakeholder, "libraries can serve as a link of commonality within and between communities, functioning to preserve and present local and regional cultural heritage in a public setting." Libraries can also help nurture a culture of lifelong learning, connecting the local learning setting with global resources of information and knowledge.

In addition to its rich cultural history and strong foundation in the arts, the region has a proud automobile manufacturing heritage. Kokomo, known as the "City of Firsts," is home of America's first car, invented by Elwood Haynes in 1894. The Haynes-Apperson Automobile Company was established in 1898 for the mass production of commercial vehicles. In 1894, D.C. Spraker invented the first pneumatic

rubber tire and the first carburetor was developed by George Kingston in 1902. The Delco Radio Division of General Motors, also based in Kokomo, was responsible for many industry firsts, including the first push-button car radio and the first signal-seeking car radio.

Historic Preservation: Communities in the Hoosier Heartland region have made a remarkable effort to preserve and restore their historic buildings and historic neighborhoods including Indian and European remnants. Lafayette, Logansport, and Wabash are all identified as Preserve America Communities. Only 20 such communities are identified throughout Indiana and about 800 communities in the US. In cooperation with several federal departments, the Preserve America



A hand-drawn plan of the Tippecanoe Camp set up by William Henry Harrison. The camp was attacked on November 7, 1811, by Tenskwatawa, The Prophet. After a fierce battle, General Harrison and his army defeated the Prophet's Indian confederation. Image courtesy of Battle Ground Police Department.

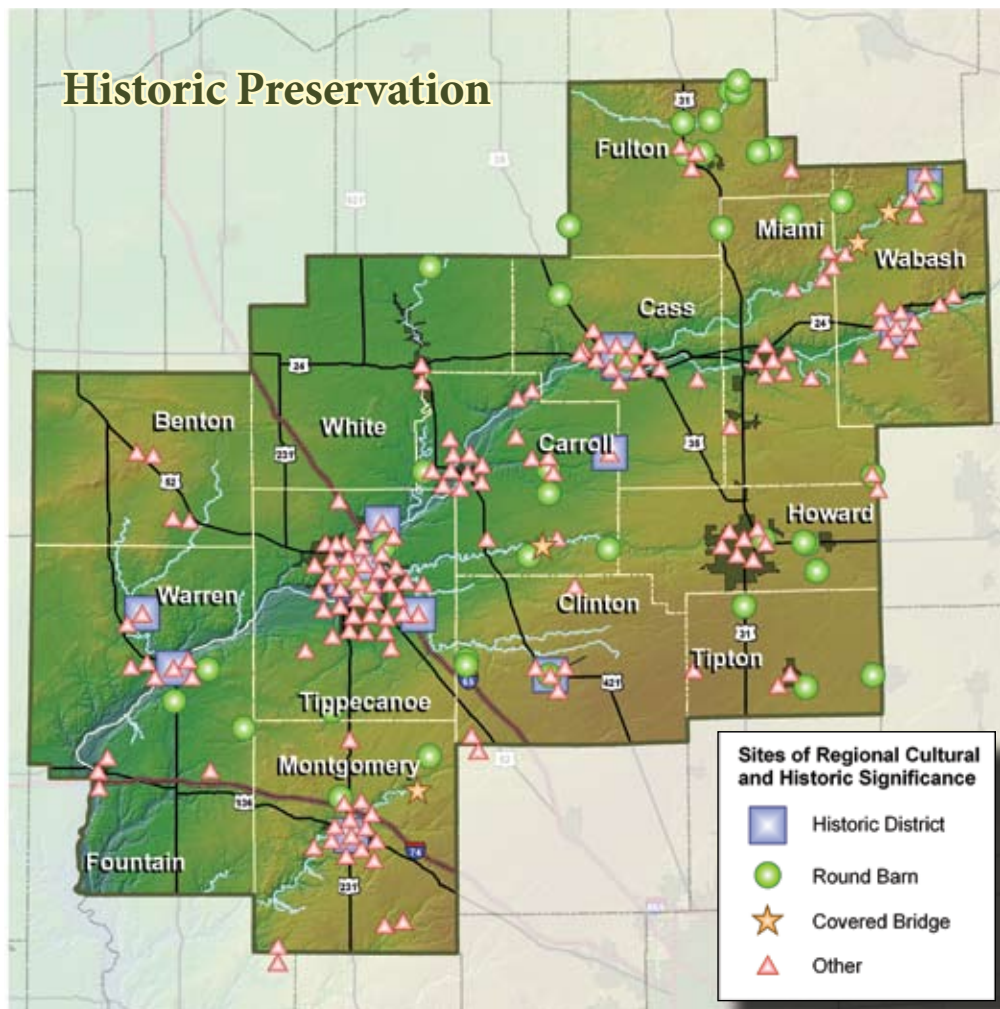
program is a nationwide initiative, which recognizes communities, counties, and neighborhoods for exemplary protection, preservation, and celebration of their heritage (www.preserveamerica.gov).

Within the region, 172 historic buildings and districts are identified in the National

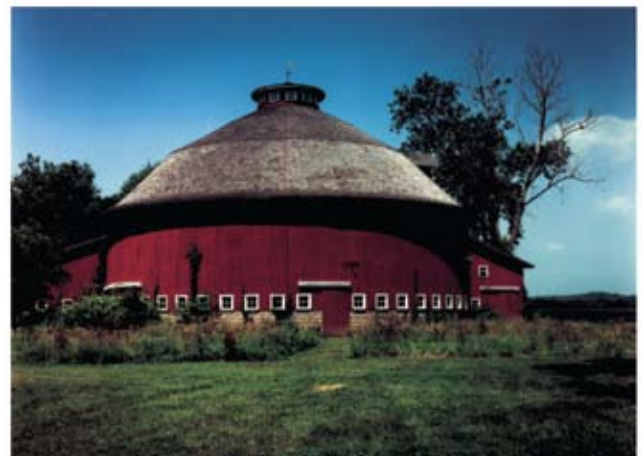
Register of Historic Places. The number of registered buildings and districts varies by county from 40 in Tippecanoe county to 2 in Tipton County. Carroll, Montgomery, and Wabash counties each have 20 such places. Diverse architectural styles characterize buildings in the region, including neo-classical and buildings from

the modernist movement. These include a Usonian House, “Samara,” designed by Frank Lloyd Wright, one of the great masters of the modern architecture movement in the US. West Lafayette also has one of the earliest buildings by Louis Sullivan, the creator of the modern skyscraper, and one of the foremost architects in the First Chicago School of Architecture. Residential and public architecture from different eras preserved in the Hoosier Heartland region include Gothic Revival, Italianate, Greek Revival, Romanesque Revival, Arabesque, Art-Deco, and several vernacular Edwardian, Jacobian, and Victorian style buildings.

The Hoosier Heartland region is dotted with covered bridges, especially in Carroll, Montgomery, Fountain, and Howard counties. These include the Lancaster Covered Bridge, Vermont Bridge, Cades Mill Bridge, Darlington Bridge and more. “Round barns” are located in Carroll, Fulton, Cass, Howard, Montgomery, and Tippecanoe counties. A few round barns included in the National Register of Historic Places are the John Haimbaugh, Bert Leedy, and Gerig-Utter Round Barns in Fulton County, and the William Fisher Polygonal Barn in Montgomery County.

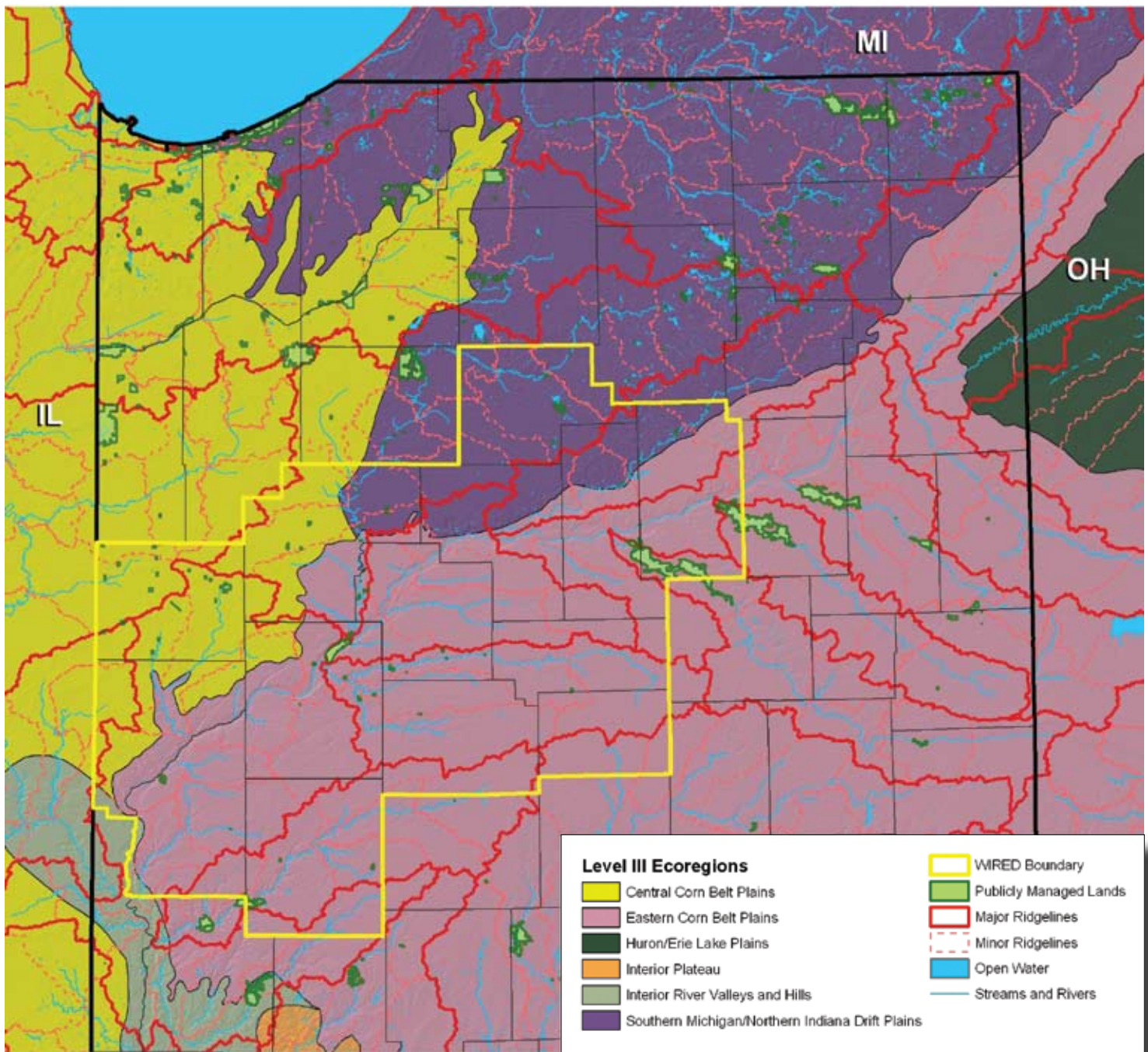


The Darlington Covered Bridge, constructed in 1860, crosses Sugar Creek, just west of the Town of Darlington in Montgomery County. Photo by PCRD staff.



The John Haimbaugh Round Barn, located in rural Fulton County, was constructed in 1914 and is on the National Register of Historic Places. Photo by Paul Smiley-Oyen.

Natural Regions



Natural Landscape: Natural regions in the Hoosier Heartland region are comprised primarily of slight variations of cornbelt plains ecological regions, as established by the US Environmental Protection Agency. These ecological regions were established by analyzing biotic and abiotic phenomena and their effect on ecosystem quality. Physiographically, the region is comprised primarily of features categorized as Central Till Plain, with Northern Moraine and Lake in the northern counties. De-

spite these three differing categorizations, the Hoosier Heartland region's basic natural features are essentially the same.

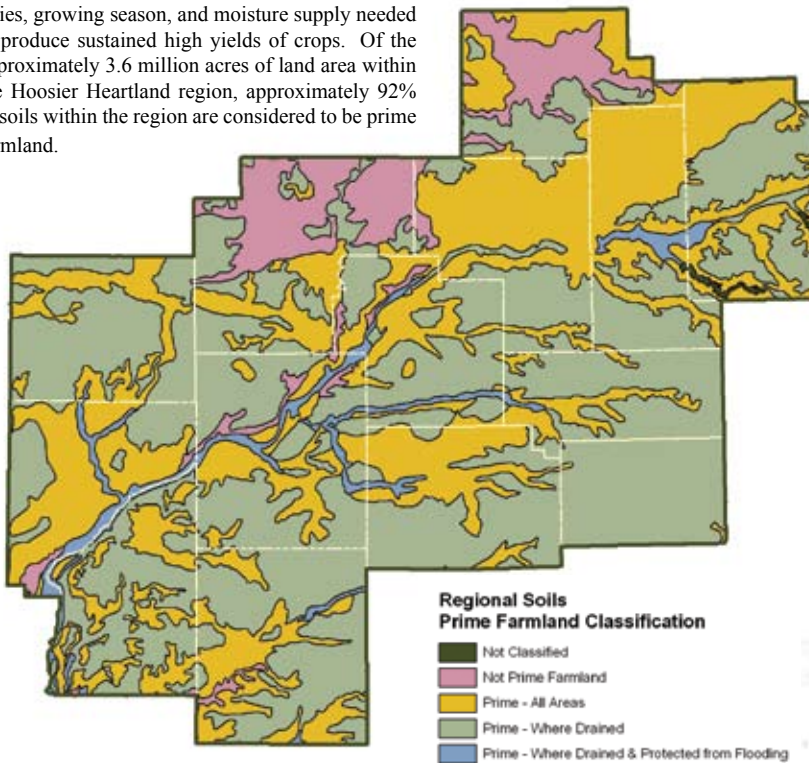
Natural Regional Assets: One of the most significant natural resource assets in the Hoosier Heartland region is water. Ground water resources in much of the region can be classified as being fair to excellent, with yields ranging from 100 to 1000+ gallons per minute (gpm). Only areas in the western counties have yields (10 to 50 gpm) that could be considered

as somewhat limited. Groundwater availability plays an important role not only as a resource for private and public drinking water supplies, but also as an important resource for businesses that may require large quantities of water in their industrial processes.

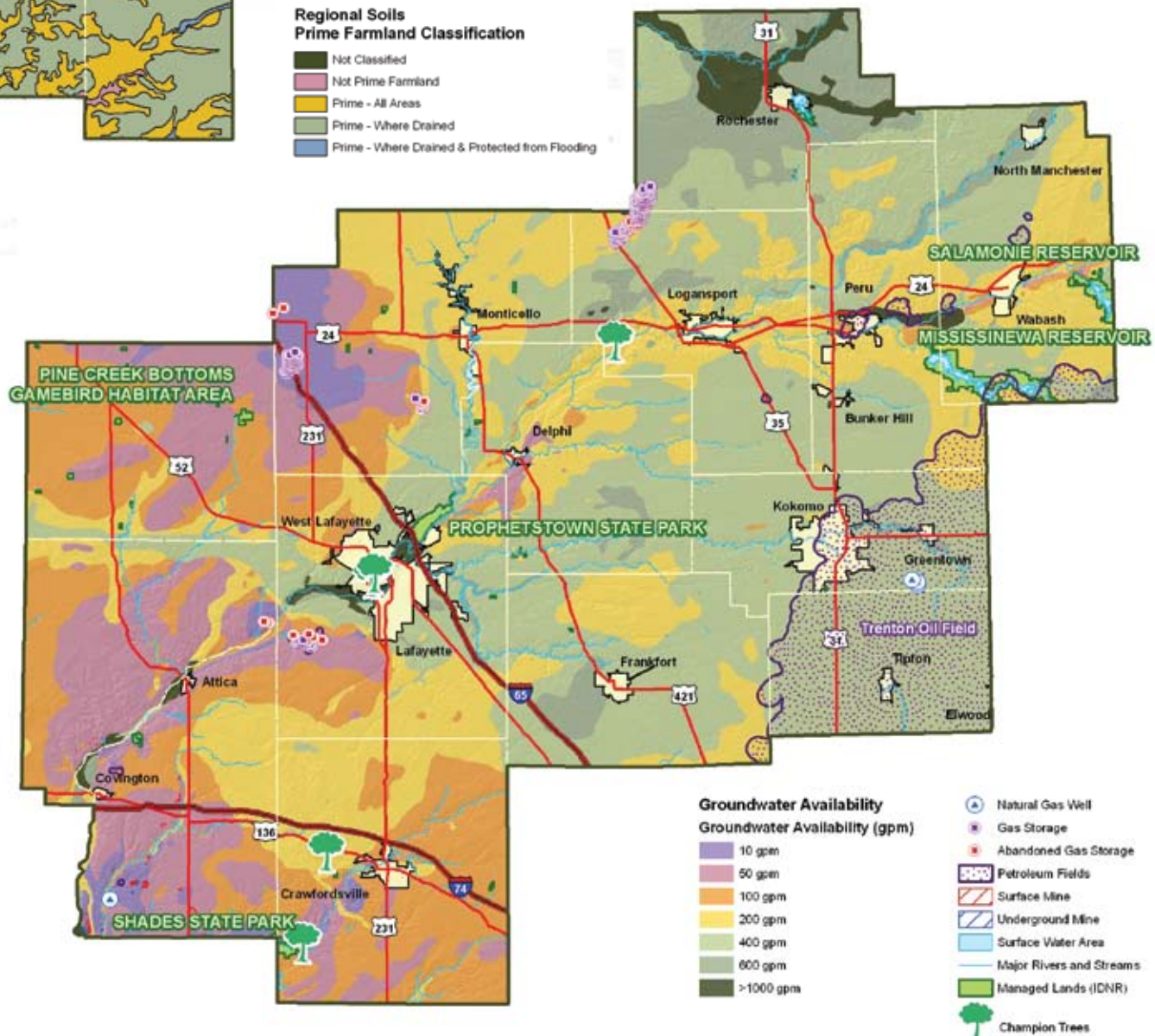
The region also boasts multiple state parks and reservoirs, including Prophetstown State Park, named for the Native American village located between the Wabash and Tippecanoe Rivers estab-

Environmental and Natural Resource Assets, 2009

Prime Farmland is the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops. Of the approximately 3.6 million acres of land area within the Hoosier Heartland region, approximately 92% of soils within the region are considered to be prime farmland.



Devil's Backbone ridge at Pine Hills Nature Preserve, Indiana's first dedicated nature preserve, located in Montgomery County. Photo by PCRD staff.



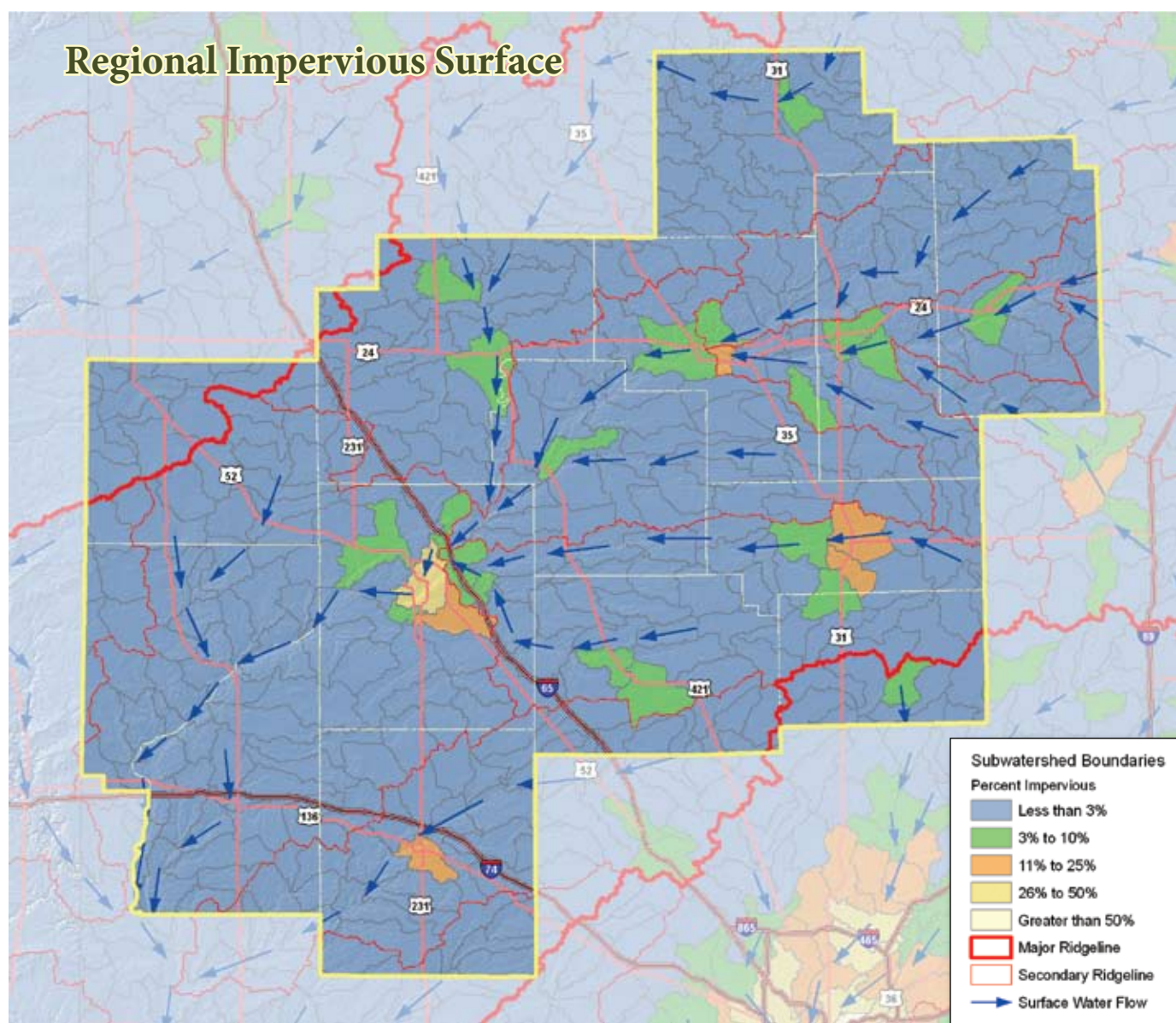
lished by Tecumseh. Prophetstown State Park was established in part to restore the tallgrass prairie habitat that dominated the landscape. The Mississinewa and Salamonie Reservoirs were constructed to reduce flooding downstream and have saved downstream communities millions of dollars in flood damages. In addition to flood control, these areas contain approximately 25,000 acres of natural areas used for recreation and conservation, with approximately 9,000 acres of land managed specifically for wildlife habitat.

The Hoosier Heartland region also has petroleum resources, primarily oil and gas storage fields. The southeastern part of the region contains the Trenton Oil Field, which was America's first giant oil field (greater than one billion barrels of oil). A

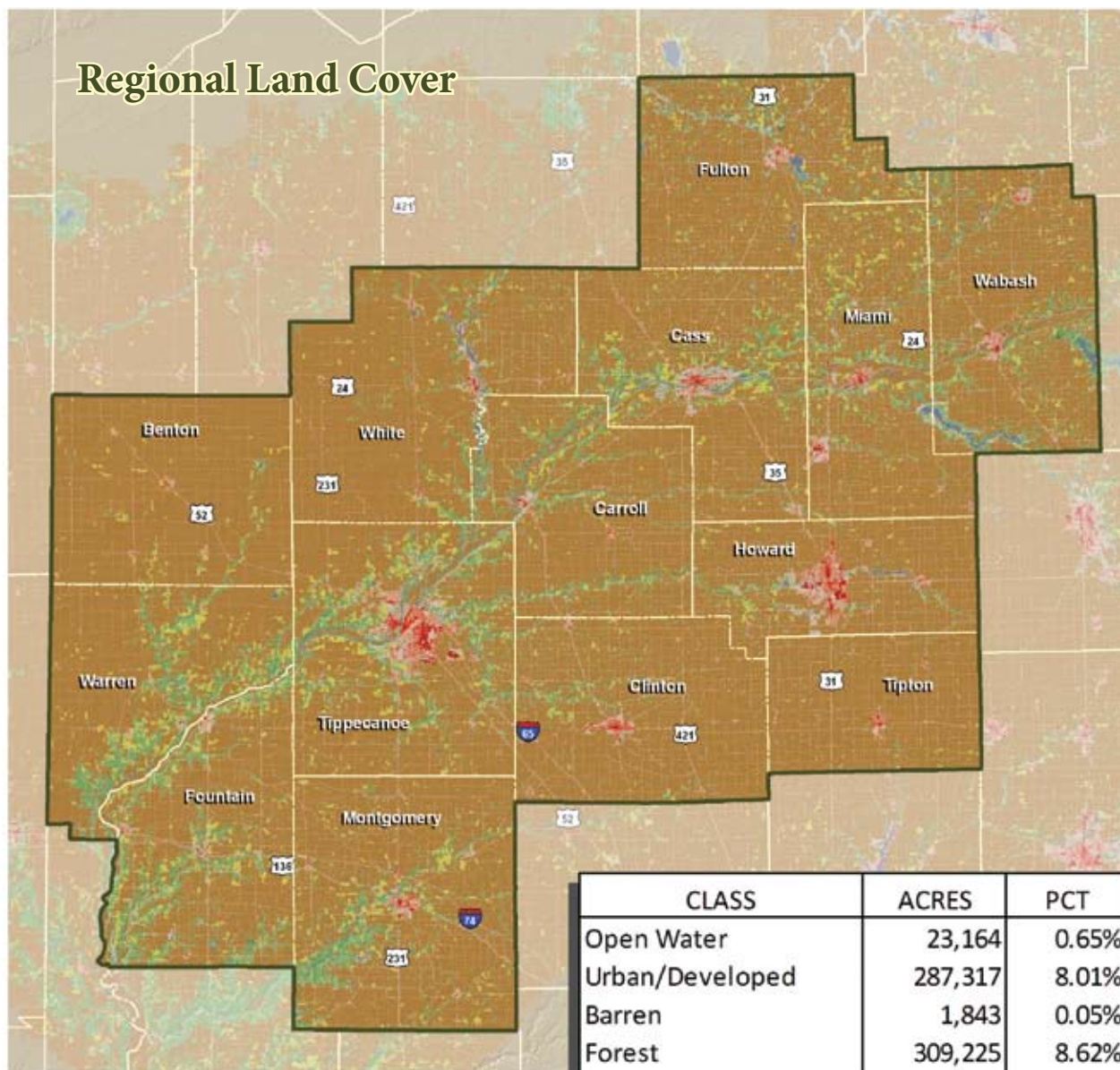
boom occurred in the late 19th and early 20th centuries that resulted in thousands of wells being drilled. The gas was used to attract and then fuel numerous industries in the region. The boom quickly ended in the beginning of the 20th century because wasted resources and unregulated drilling practices caused a precipitous drop in production. Much of the resource was wasted or lost through the burning of gas at the surface, however it is estimated that only 10% of the oil was removed (source: Indiana Geological Survey).

Regional Impervious Surface: Increases in impervious surfaces cause storm water runoff to increase significantly in both volume and velocity. These increases can result in increased flooding, severe erosion, and physical degradation of stream

and river habitats, adversely impacting the entire watershed. Streams in watersheds with greater than 10% percent of their land area in impervious cover begin to show signs of moderate impairment. As impervious surface approaches 25%, streams become severely impaired, displaying significant reduction in the water quality, habitat quality, and biological diversity occurring in watershed streams. Within the Hoosier Heartland region, approximately 1.5% of watersheds have impervious surface cover of greater than 10%.



Regional Land Cover



National Land Cover Dataset, 2001

Open Water	Mixed Forest
Developed, Open Space	Shrub/Scrub
Developed, Low Intensity	Grassland/Herbaceous
Developed, Medium Intensity	Pasture Hay
Developed, High Intensity	Cultivated Crops
Barren Land	Woody Wetlands
Deciduous Forest	Emergent Herbaceous Wetlands
Evergreen Forest	

CLASS	ACRES	PCT
Open Water	23,164	0.65%
Urban/Developed	287,317	8.01%
Barren	1,843	0.05%
Forest	309,225	8.62%
Shrub/Scrub	9,106	0.25%
Grassland/Herbaceous	34,616	0.97%
Agriculture	2,902,626	80.94%
Wetlands	18,278	0.51%
Total Acreage	3,586,174	

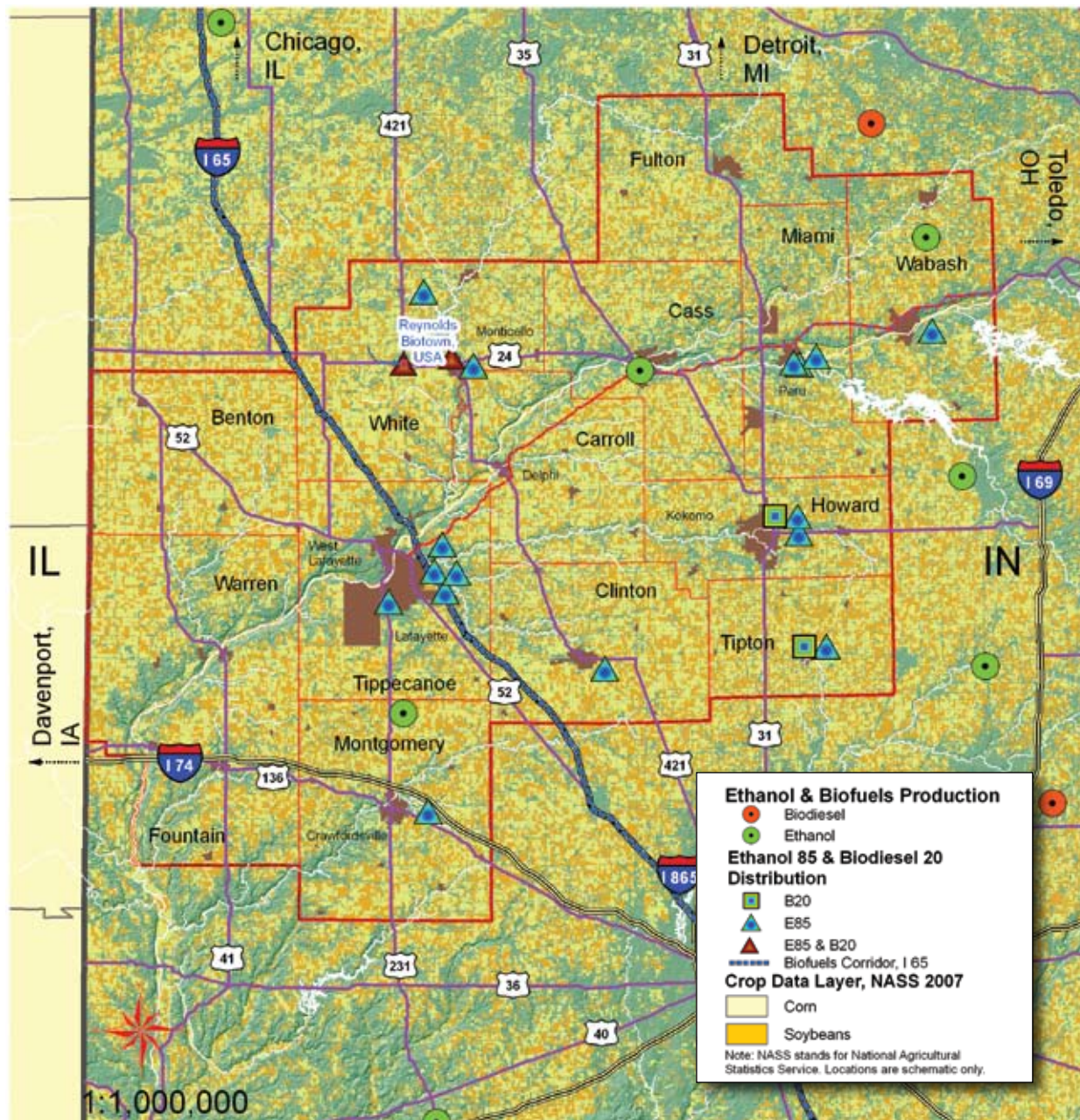
Agriculture dominates the landscape of the Hoosier Heartland region, accounting for approximately 81% of regional land cover. The major crops are corn and soybeans. Areas classified as developed account for approximately 8% of regional land cover, while areas classified as forested account for approximately 9%. It should be noted that forested areas in the region are predominantly located around open bodies of water, primarily rivers and streams. Despite having four notable reservoirs in the region, Mississinewa, Salamonie, Shafer,

and Freeman, open water areas account for less than 1% of land cover.

Areas designated as wetlands account for approximately 0.5% of regional land cover. Statewide analysis by the Natural Resources Conservation Service and Indiana Department of Natural Resources concluded there were approximately 5.6 million acres of wetlands in Indiana circa the 1780s, representing 24% of the state's surface area. In comparison, surveys completed during the 1980s concluded

that there are 813,000 wetland acres accounting for only 3.5% of the surface area of the state, an estimated 85% loss. The vast majority of wetlands lost were due to drainage for agricultural purposes. Wetland soils are nutrient rich and valued for growing agricultural crops.

Ethanol and Biodiesel Production

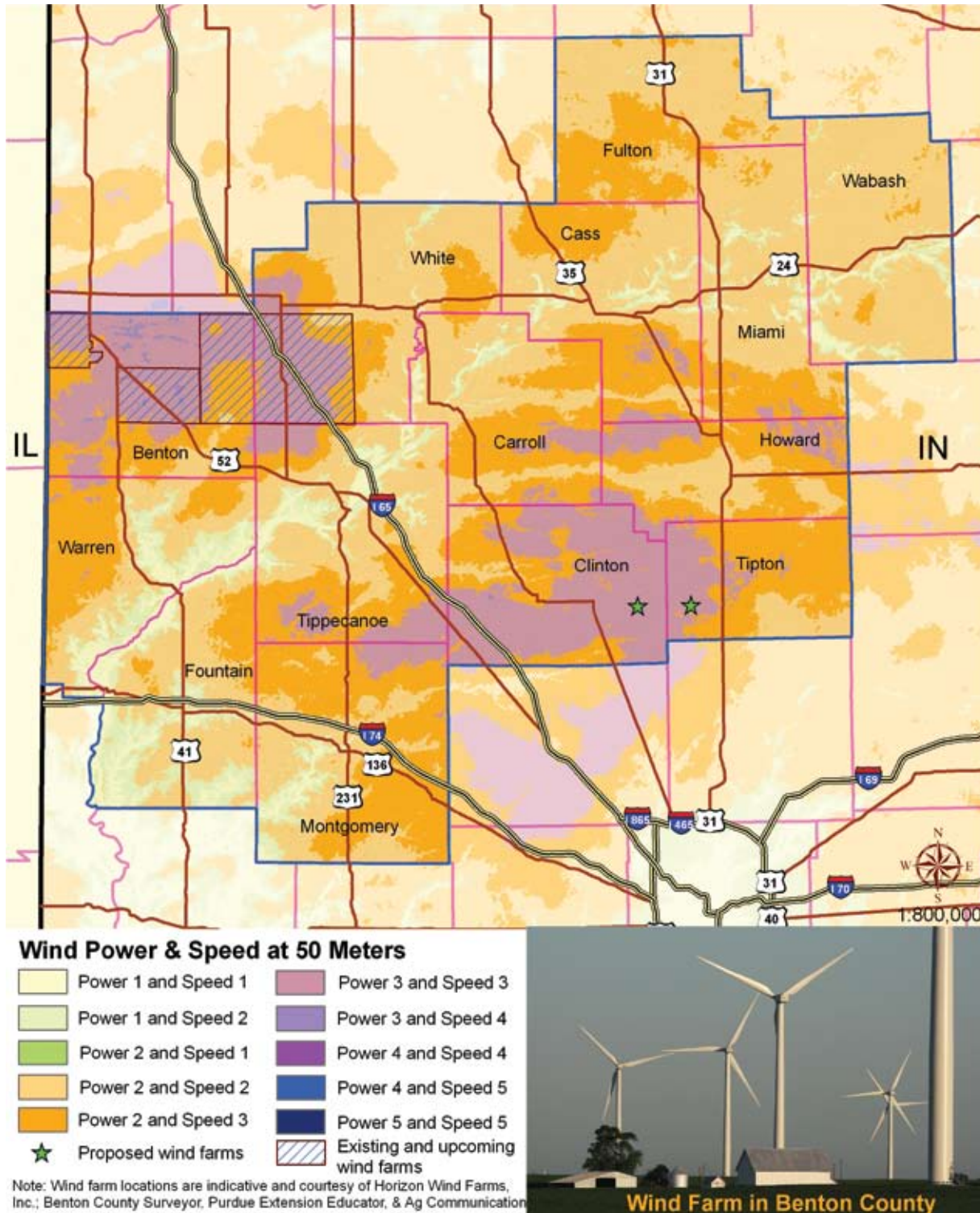


The I-65 Interstate between Gary, IN and Mobile, AL has been designated as the first Biofuels Corridor in the US by the Department of Energy. This indicates commitment towards providing clean energy resources to drivers. The region has quite a few distribution facilities on I-65 and other arterial roads, such as US 24 and State Road 26. Fuel distribution facilities for E85 and B20, as well as ethanol and biodiesel production facilities, are located within the region. The region falls within the corn and soybean belt with a significant number of farms growing corn and soybeans as evident in the map. Reynolds, Indiana's first "BioTown,

USA" is located in White County in the region. It is a small town of 547 people with the novel objective of attaining self sufficiency in energy. The region's communities are pioneers in alternative and clean energy fuels.



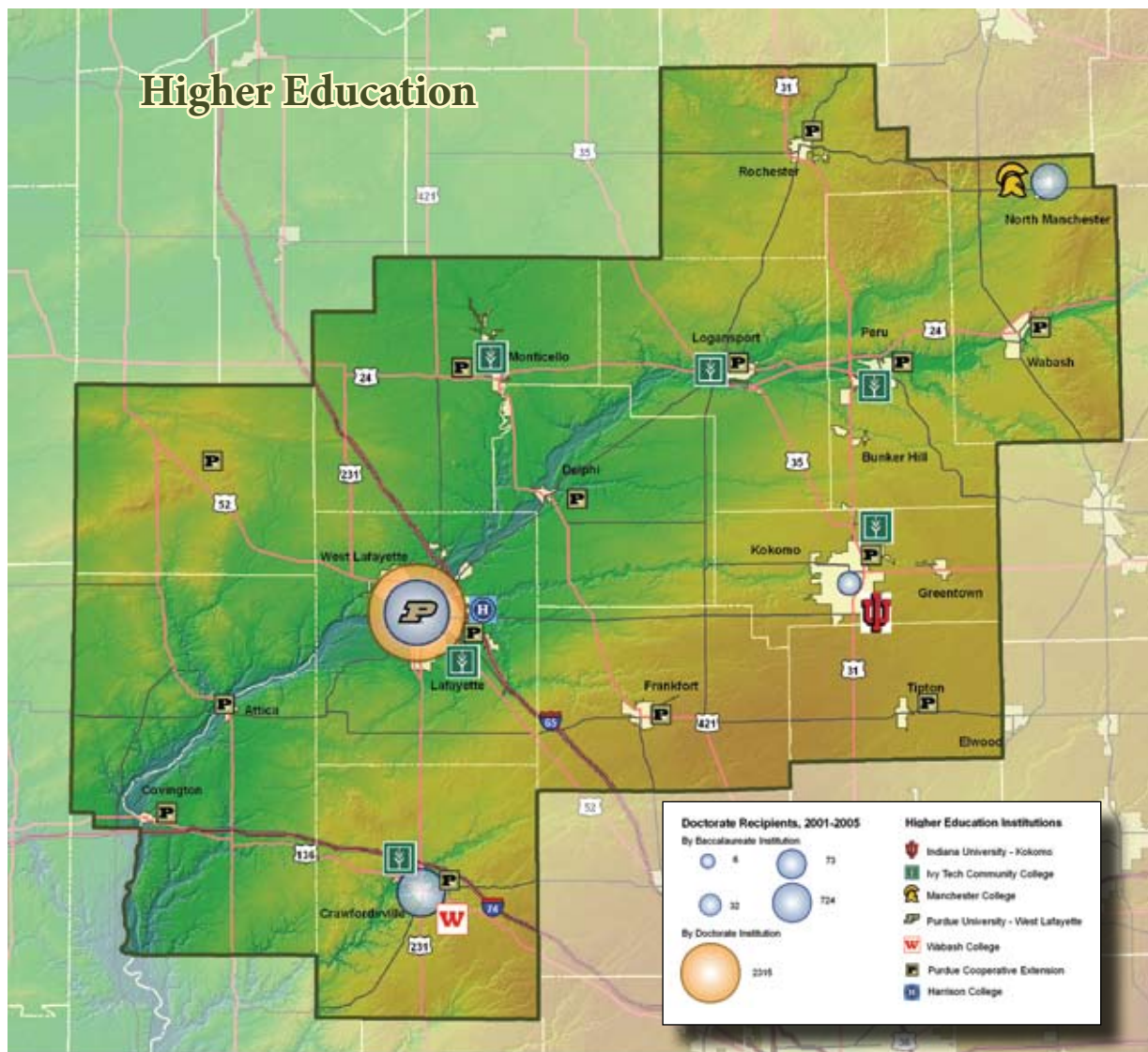
Wind Energy Potential and Wind Farms



Indiana is ranked 14th in the US (2009) with a power capacity of 530.8 MW generated by already-existing wind farms. Wind power is a renewable and clean source of energy. Unlike the neighboring state of Illinois, which has abundant wind adequate for generating electricity, Indiana has concentrated pockets of adequate wind, particularly in the Hoosier Heartland region.

Indiana has made considerable progress in facilitating wind farms in the wind-rich region. Several wind farms are operating in Benton and White counties and new ones are being commissioned in White, Tipton, and Clinton counties. Large areas of Benton, White, Clinton, Tipton, and some areas in Tippecanoe, Carroll, Cass, Montgomery, Warren and Howard counties have a combination of wind power and wind speed at scales 3 and 4, which is considered good for wind power genera-

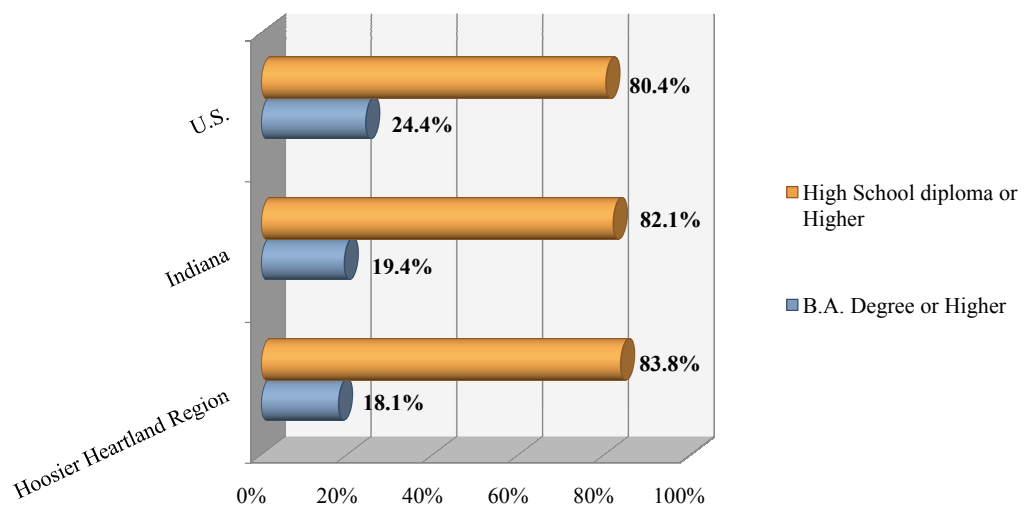
tion. Other than the Wabash River valley areas, almost all the Hoosier Heartland region has wind power and speed combinations at scale 2 and above, the minimum recommended by the National Renewable Energy Laboratory (NREL). Benton County was a pioneer in developing zoning regulations to locate wind farms in rural areas and communities. The region's communities are leading the state in the application and use of renewable sources of energy.



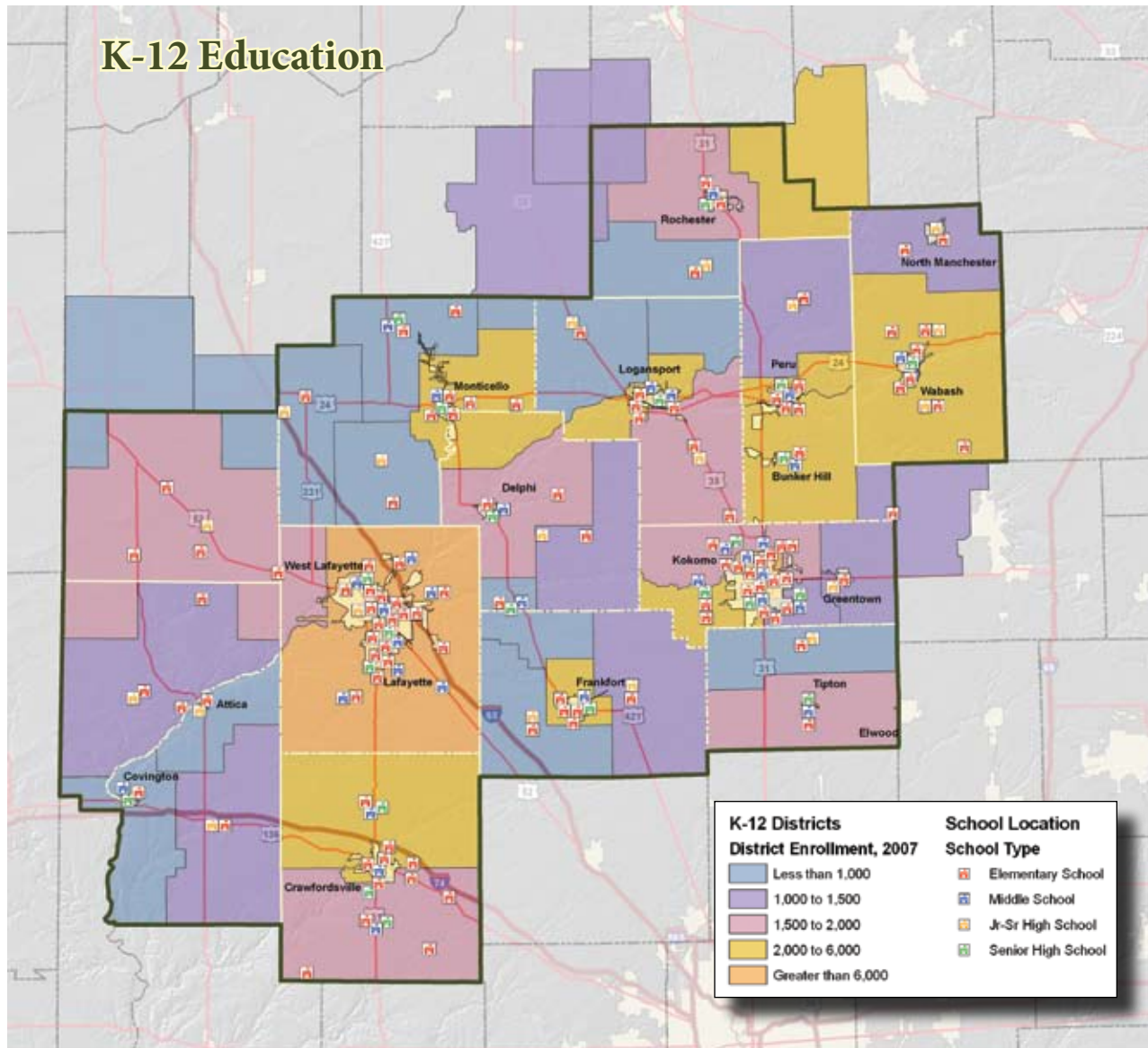
The Hoosier Heartland region has 4 four-year higher education institutions, including the primary campuses for Purdue University, Manchester College, and Wabash College, and regional campuses of Indiana University in Kokomo (IUK) as well as Harrison College in Lafayette. The region also contains six regional campuses of Ivy Tech Community College, which is the largest community college system of its kind in the nation.

Data from 2006-2007 shows that 82.2% of graduating high school seniors plan on attending some form of higher education institution, falling slightly below the Indiana state average of 83.4%. Data analysis also shows that the overall percentage (55%) of college bound students in the region attending four-year institutions is

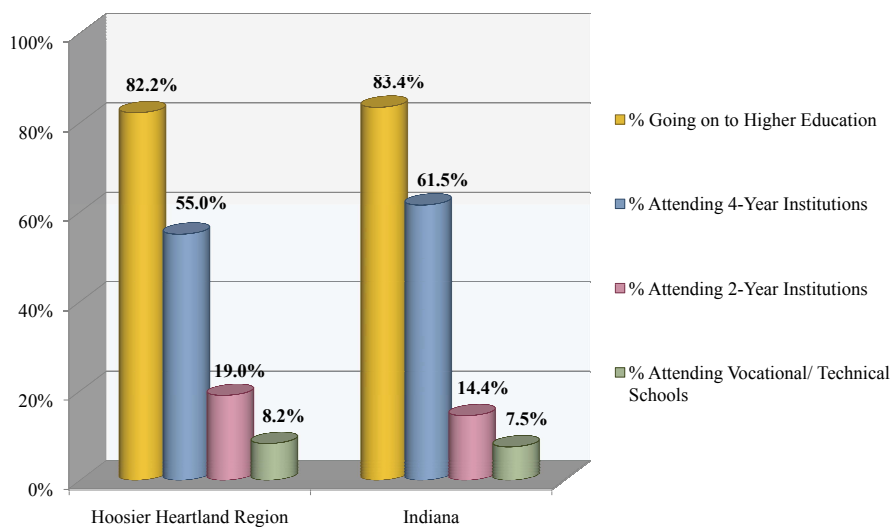
Educational Attainment in Adults (25+), 2000



K-12 Education



High School Graduates Higher Education Intent, 2006



below the state average (62%). However, the region (8.2%) exceeds the state average (7.5%) number of students attending two-year institutions such as Ivy Tech.

Slightly fewer adults aged 25 years or more (18%) have attained at least a Bachelor's degree in the region than in Indiana as a whole (19%), compared to a national average of 24%. However, nearly 84% of adults 25 years or more have attained at least a high school diploma, exceeding both the Indiana (82%) and national (80%) averages.

According to the IN EGR4 State of the Workforce report prepared by the Tecumseh Area Partnership, the Hoosier Heartland region is well endowed with education, training, lifelong learning and labor exchange organizations including:

- Innovative 'store front' skills upgrade programs including the Lafayette Adult Resource Academy; community learning centers in Clinton County (Cooperative Extension Office) and White County; and One Step Up (Kokomo)
- Regionally coordinated Adult Basic Education and GED
- Experimental basic skills preparation for foreign-born workers such as Plaza Comunitaria in Frankfort
- Manufacturing Skills Standard Certification and Manager Supervisor Institute (Ivy Tech)
- Business and Professional Exchange (Lafayette, Kokomo)
- Enhanced public employment offices: Work One Centers and Reach Centers in Lafayette and Kokomo
- Maturity Matters™ workshop offerings
- Project Complete (Ivy Tech, IU Kokomo), a program for 'stop outs'
- More transfer credits at Ivy Tech - Fast Track to College 17+
- Expanded Purdue technology parks in West Lafayette and Kokomo

However, the report notes,

...like much of Indiana, the region has a shortage of mid-level workers, many younger. While 8% of jobs require an Associate's degree, individuals so qualified account for only 6% of the adult population. Between 2000 and 2007, the cohort of early and mid-career workers decreased by 19,000, mostly educated at the 'some college' level. However, while these younger cohorts are shrinking in number, their share with Associate degrees is increasing. As businesses in the Region shift to ever more agility, technological sophistication, and 'lean production' principles, they may well require fewer workers but with more advanced skills coupled with individual initiative. (2009 State of the Workforce Report, p. 16)

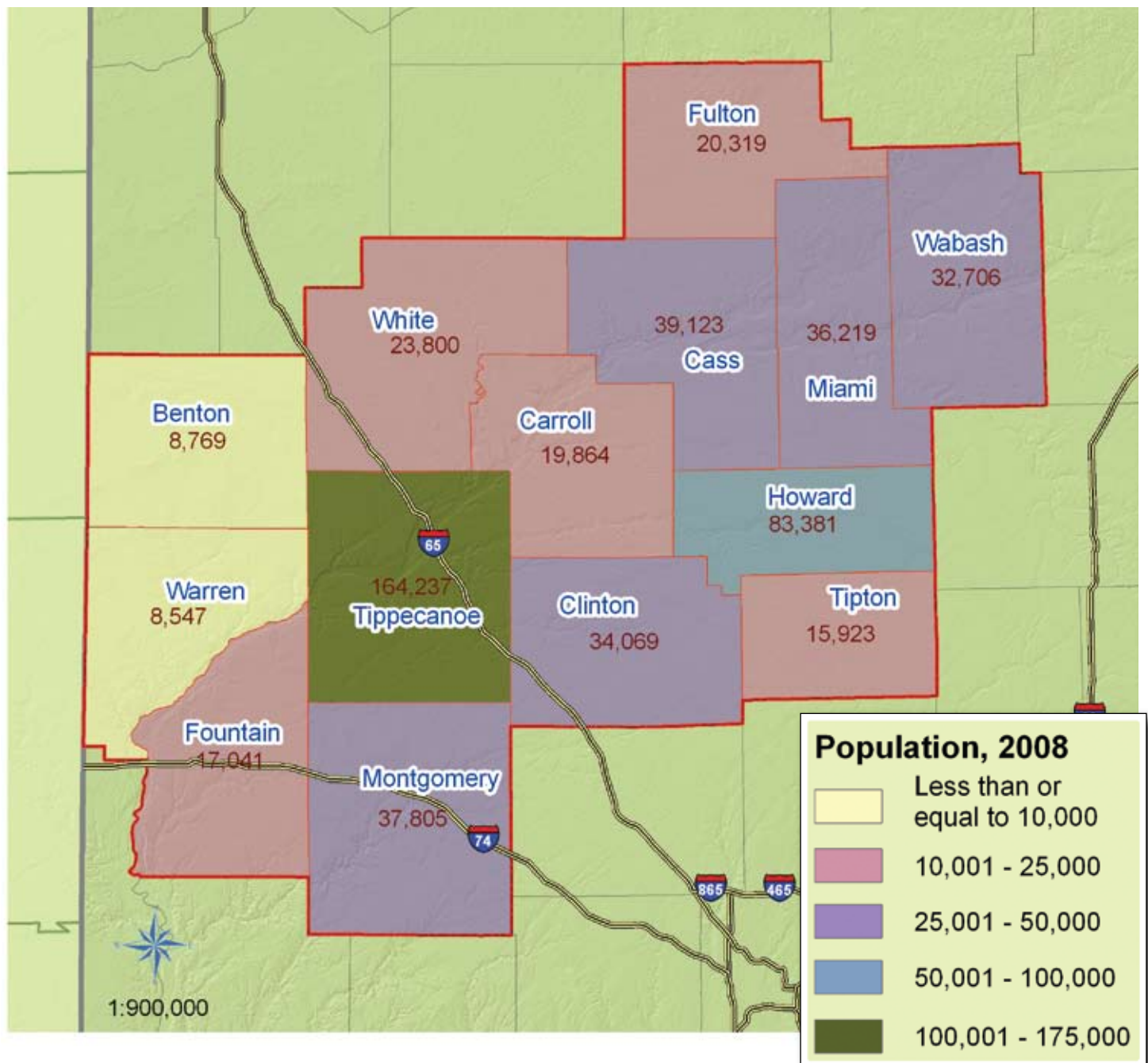
Due to the implementation of innovative programs of the WIRED program and other regional initiatives, many regional high schools are now making learning more relevant by linking academic and vocational curricula and better catering to the student who is not immediately college-bound, for example:

- Career academy learning in schools such as Peru Community Schools and Lafayette's Jefferson Career Academy
- Career certifications in the high school, for example the Manufacturing Skill Standards Certification (MSSC) at Century Career Center, Logansport
- Integration of academic and vocational tracks at Logansport High School

Project Lead The Way Initiative: Project Lead The Way® (PLTW) is a not-for-profit organization that promotes pre-engineering courses for middle and high school students. Project Lead The Way forms partnerships with public schools, higher education institutions and the private sector to increase the quantity and quality of engineers and engineering technologists graduating from our educational system by promoting pre-engineering courses for middle and high school students, enhancing their value to tomorrow's workforce.

The Hoosier Heartland area is ranked first in the nation in offering Project Lead the Way curriculum with nearly 80% of Middle and High Schools now offering the program, leading any other economic region in the US.

Population by County



The demographic characteristics of a region are important for planning and decision making for the future. The resident population determines in part the demand for goods and services in any region. The age and sex makeup of the population, and their level and types of education determine the characteristics of the available labor force. Ethnic diversity in the resident population is also increasingly recognized as an important part of building human capital in a region.

The population in the Hoosier Heartland

region as a whole has been growing consistently since the 1990's, however the growth rates varied considerably during the decades of 1990 and 2000. The region's population grew by 7.2% from 1990 to 2000 whereas from 2000 to 2008, it grew only 1.1%. The average annual growth rate from 1990 to 2000 was about 0.7% whereas from 2000 to 2008, it was about 0.14%. The region as a whole observed marginal population growth after 2000, however census figures show that Benton, Wabash, Fountain, Tipton and Miami counties have been losing popula-

tion since at least 1990. Wabash County's population is projected to grow between 2008 and 2025, but White and Cass counties' population is expected to start to decline. Long range population projections are notoriously unreliable due to the unpredictability of events that affect human migrations and natural increase, however population loss is an indicator that is hard to ignore.

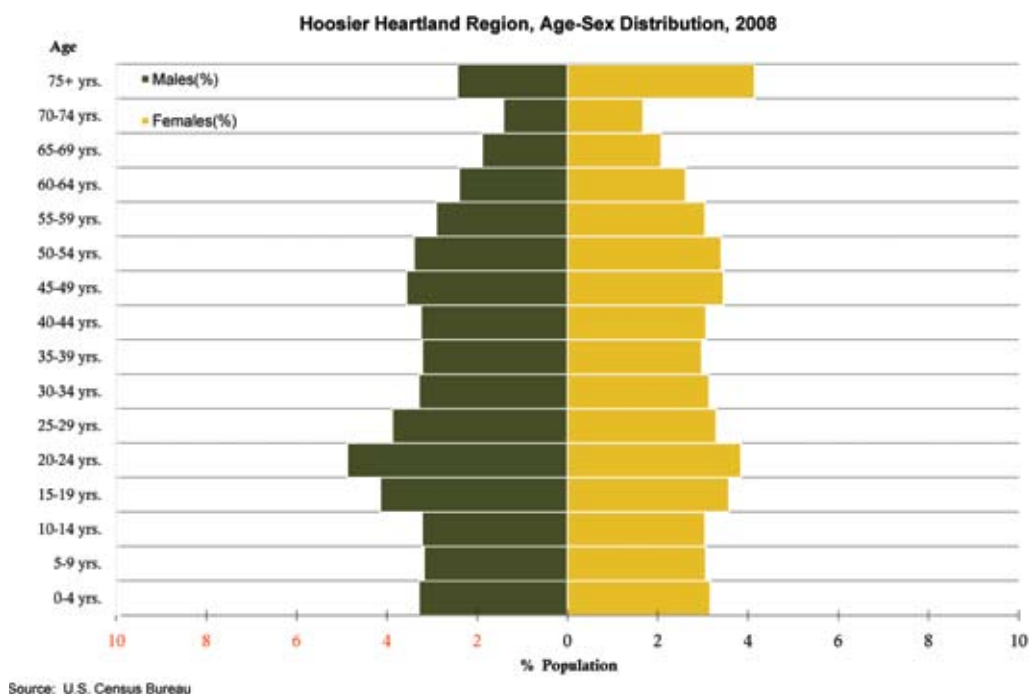
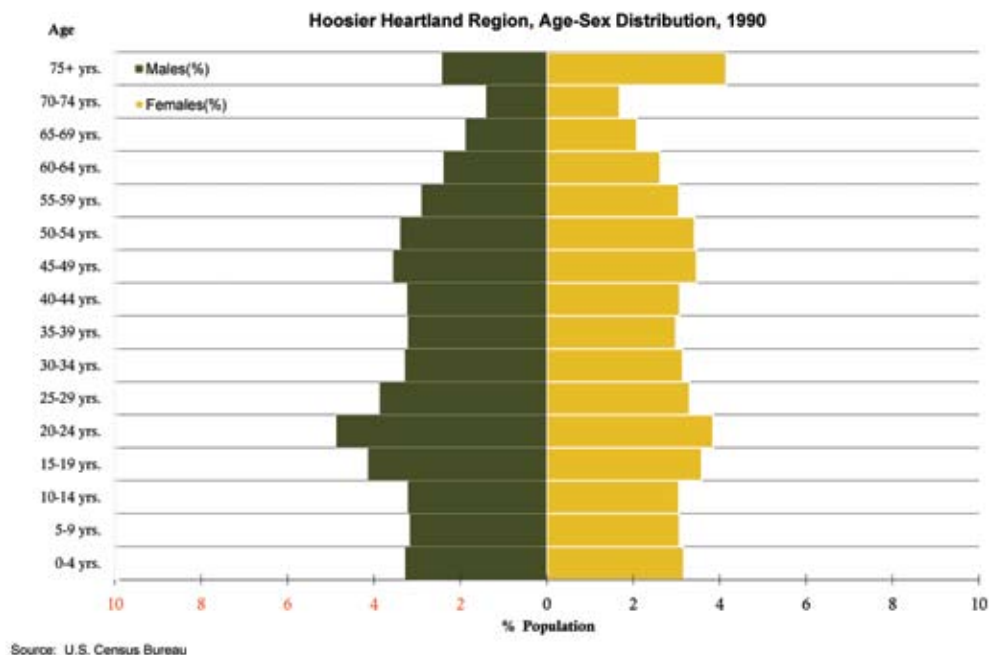
In the last two decades, there has been a slight change in the age-sex makeup of the region. The population pyramids

show that there are two major age-groups: 20-24 years and 75+ years. In fact, the retirees and older age group is the most dominant age group in the region. A striking demographic feature is the size of the cohort aged over 75 years. The size of this cohort has been increasing nationwide, and has specific policy implications. The predominance of women is evident in this age group. It has often been found that there is a high degree of poverty amongst the elder population and in particular older women living alone, another factor which calls for attention to this part of the population.

Another demographic trend that will affect the region as well as the nation is the aging of the Baby Boom generation. The baby boomers are those persons born from 1946 to 1964. This huge generation is currently aged between 45 and 63 years and has begun to retire. Baby boomers form a large chunk of the Hoosier Heartland region's population, however the next three age cohorts coming after them (ages 30 to 44 years) are noticeably smaller in number. In the future, there could be some issues with labor supply.

The spike in the young college-going age group is likely due to the presence of Purdue University, Wabash College, Manchester College and Indiana University Kokomo. The college-going age group forms an important part of the region's store of human capital, although it may be a transient population with high rates of turnover, and likely to leave the region after completion of college education. However, a recent study on the state of the regional workforce, prepared by the Tecumseh Area Partnership for the Alliance 4 Advancement West Central Indiana Workforce Board states that:

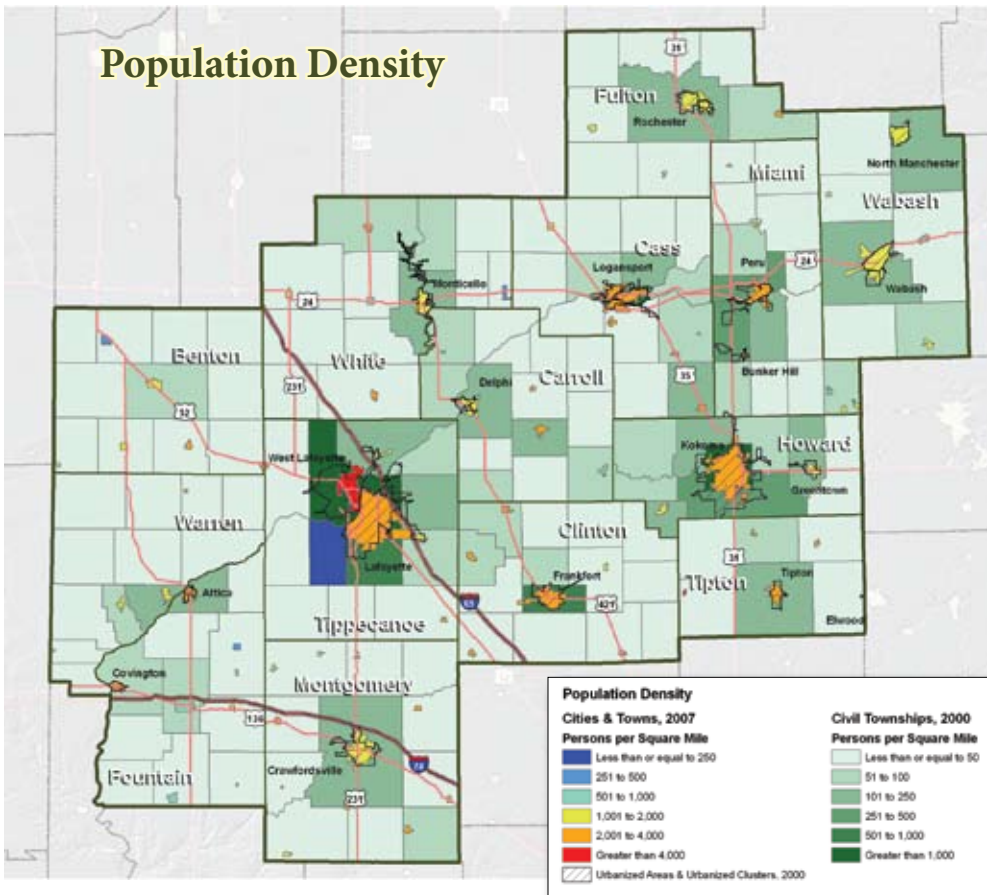
Contrary to a widespread belief, the Region does not suffer from a brain drain, in that demand is satisfied by supply of 4-year college graduates. In fact, the Region has a surplus of college-educated residents relative to professional jobs available. While 22.0% of the adult population is 4-year college educated, only 18.2% of jobs require a four-year degree or better. Consequently, the Region can



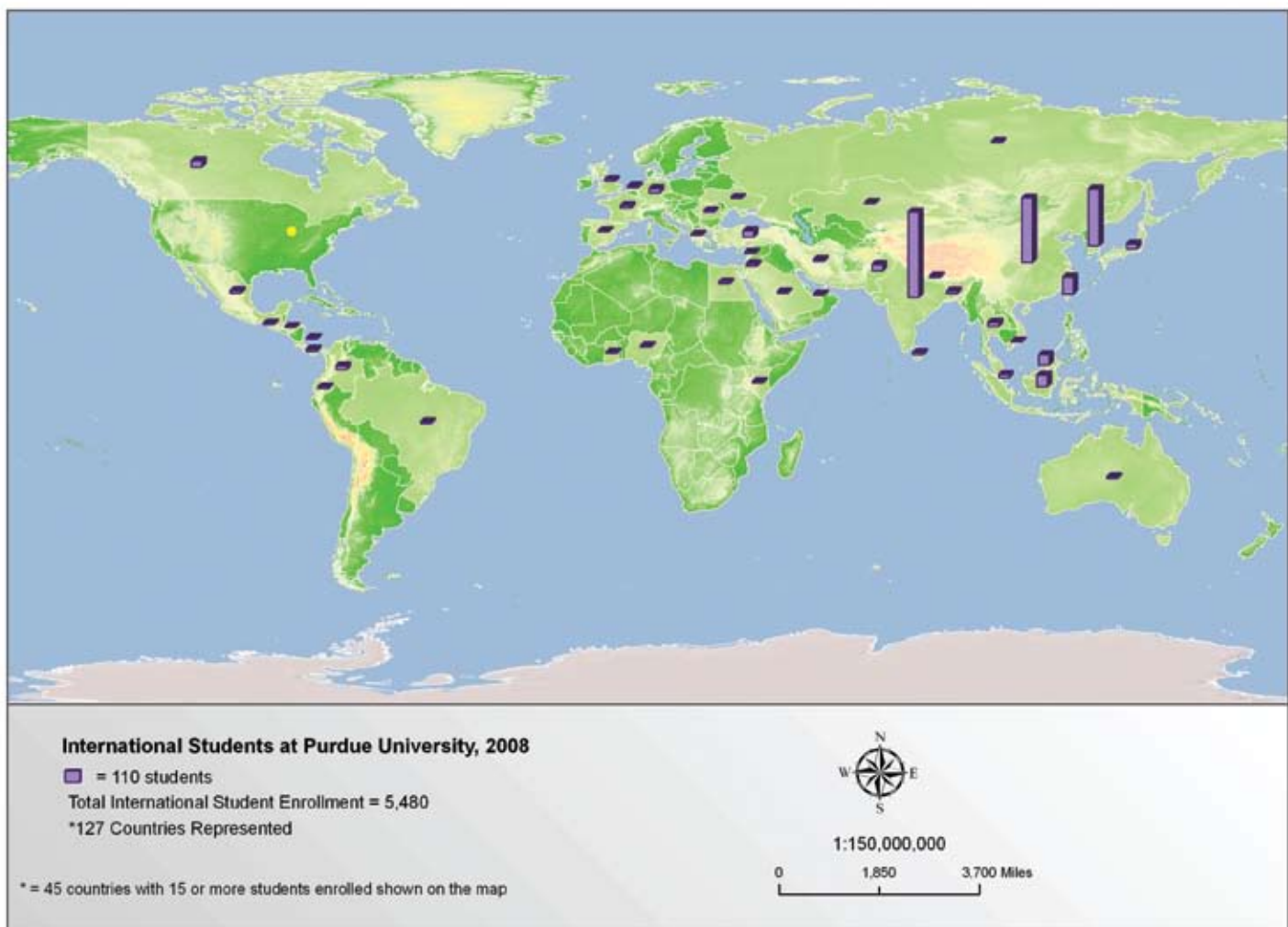
boast a reservoir of 4-year degree talent relative to its needs. This is an advantage as economic development grows/ attracts businesses demanding advanced knowledge and skills. Further, the mature workforce is experiencing a 'brain gain' as older workers return for Bachelor and Master's upgrade (Tecumseh Area Partnership, Inc., pp.15-16, 2009).

If this statement is correct, the region has an opportunity to create more high-level jobs that will attract these graduates.

Population Density



Race and Ethnic Composition of the Population: While the population of the region is growing slowly, the degree of diversity within the population has been increasing. Indeed, it has been said that the Hoosier Heartland region is an emerging global crossroad. As a result, international influences, ethnic and cultural diversity, and new opportunities for leadership and global connections are increasing. A diverse population is an attractor as well as a competitive advantage in today's global economy. Increasingly, international corporations and institutions look for ways to engage diverse working groups to facilitate their work in different markets around the world, and fluency in a second language can be a highly prized commodity in the global context. Diversity can increase talent pools, add to the range of ideas, and stimulate creativity. Regions that embrace diversity, nurture respect, and build welcoming cultures attract talent and investment while growing stronger networks of global connections.

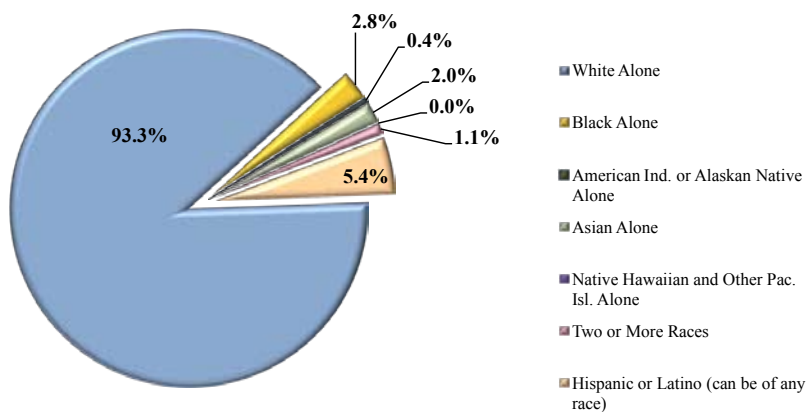


Despite these many positives, increasing diversity may include potentially sensitive issues such as assimilating in-migrant populations to the degree needed to ensure their capacity and will for full participation in the community. A region-building process may offer some exceptional opportunities for new and effective ways of assimilating diverse groups.

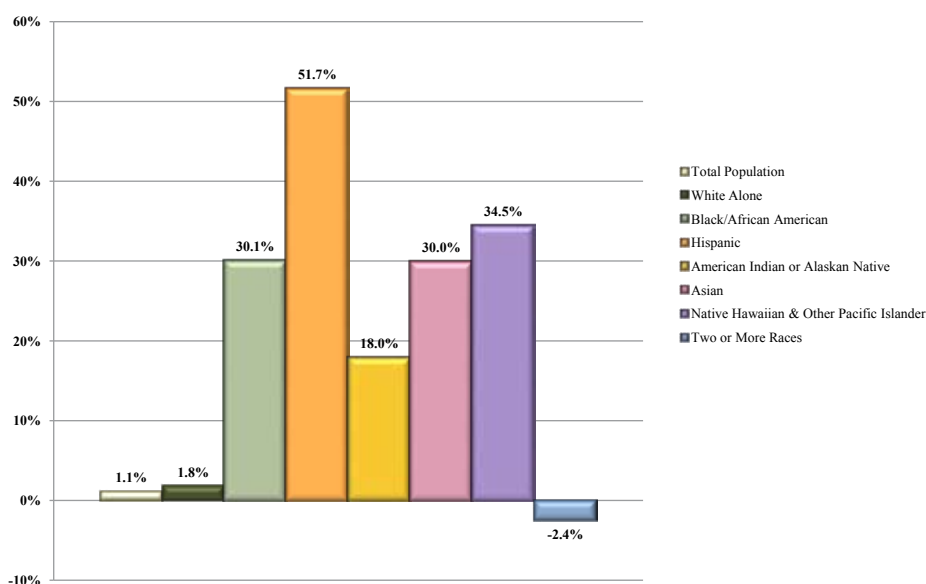
The region's population is still overwhelmingly classified as White (93.3% in 2008, compared to 96.2% in 1990), and the number of Whites in the region increased slightly overall between 2000 and 2008. Again, there is variation in the counties such as Benton, White, Wabash, and Miami where the number of Whites decreased, while Tippecanoe, Clinton, and Montgomery counties observed growth in the white population. However, the numbers of residents from other ethnic groups has been rising fast.

The two second largest ethnic groups in the region are Hispanics (5.4% of total) and Blacks (African-Americans), who constitute 2.8% of total population (up from 1.8% in 1990). Both groups experienced two to three digit percentages of population growth in every county from 2000 to 2008. Asians are the next largest group, constituting 2% of the total population. All other ethnic groups increased in percent terms over the period 2000-2008, however the actual numbers are quite small. Though predominately of one race, the Hoosier Heartland region is gradually becoming more diverse. The emerging diversity is also evident from students enrolling at Purdue University. In total about 6,000 students from 127 countries are studying at Purdue University.

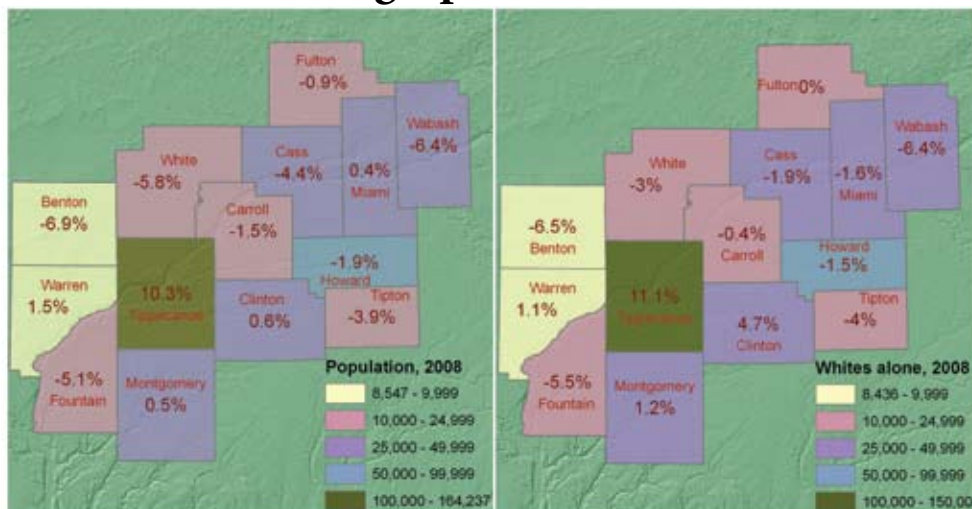
**Hoosier Heartland Region
Race and Ethnicity, 2008**



**Hoosier Heartland Region
Percent Change in Population by Race/Ethnicity, 2000-2008**



Demographics and Race



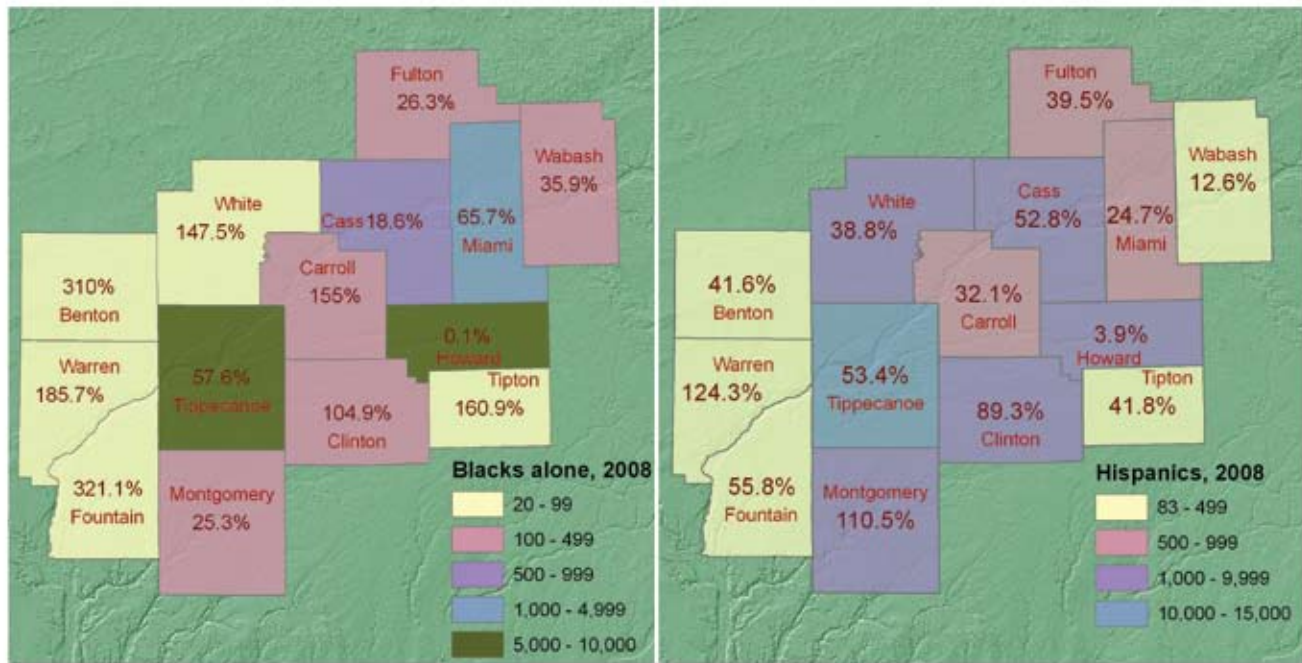
Percent Change in Population, 2000-2008

Percent Change in Whites, 2000-2008

Note: Figures show percent change from 2000 to 2008

1:1,300,000

Race and Ethnicity



Percent Change in Blacks
(African-Americans), 2000-2008

Percent Change in Hispanics, 2000-2008

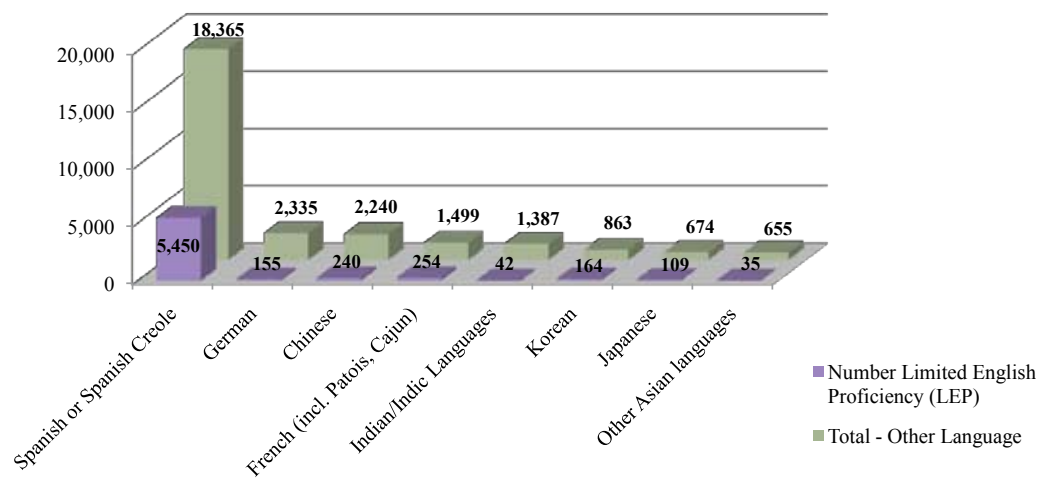
Note: Figures show percent change from 2000 to 2008

1:1,300,000



The blanket terms “White,” “Black,” “Hispanic,” “Asian” and so on conceal many other levels of diversity amongst the population of the Hoosier Heartland region. Some surprises emerge when examining the number of different languages spoken at home, for example. The language (other than English) most often spoken at home in the region is Spanish – not a great surprise. However, the next most frequently spoken language is German, followed by Chinese and then French, and this is a little surprising. The French language speakers themselves are split into at least three groups: French, Cajun and “Patois.” The Asian languages group speaks *many* different tongues. Language patterns in the region indicate a complex structure of diversity. Ethnic classifications cannot be taken as indicating any sort of monolithic culture, even amongst the White group.

Top 8 Other Languages Spoken at Home in the Region, and Level of English Proficiency



Source: 2000 Census
Special Data Pull, 2004.

Summary Conclusions:

The Hoosier Heartland region is endowed with world class institutions, exceptional human capital, and significant natural resources. The region has all kinds of transportation and logistics components to enhance its global connectivity. Not many regions in the US have such proximity to NAFTA Corridors and to so many land and air gateways. Success depends on leveraging these assets through commitment and collaboration at a regional level.

This informational report concludes with a summary of major findings from the asset mapping around the broad strategies developed to date by the Hoosier Heartland Region Leadership Alliance.

Create a regional mindset by developing regional leaders, regional stewardship, and a culture of collaboration

This study, as well as the Tecumseh Area Partnership's State of the Workforce study, reveals that the region has two distinct labor markets concentrated in the two metropolitan areas: Greater Lafayette and Kokomo. In some ways, it is a bi-polar region with two distinct poles of economic activity. As noted by the Tecumseh Area Partnership: *"For many, combining these two metro areas into one workforce region in 2005 was a stretch. They are distinctive employment nodes with different economic histories and structures. However, their combination into one region provides the opportunity to pursue more diversified talent and economic growth strategies, engaging a broad mix of manufacturing and services, and denser webs of supply chains across the region. The Region's economic diversity will prove to be an increasingly valuable asset in the turbulent and unpredictable economic environment ahead."* (2009 State of the Workforce Report, p.5)

Past studies have shown that economic diversity builds economic resilience into communities. With the goal of developing a regional mindset, other assets which should be explored are the civic engagement and philanthropic resources in the region. Philanthropic organizations have come forward to enhance regional competitiveness elsewhere, and provide a good source of leadership capabilities for regions and localities. Examples include Greater Cleveland Partnership's "Fund for Our Economic Future", which has been supporting regional economic competitiveness since 2004 through grantmaking, research, and civic engagement in northeast Ohio.

Foster a prosperous economy through collaborative efforts and entrepreneurial innovation

Asset mapping shows that in spite of a significant decline in manufacturing industries nationwide, the Hoosier Heartland region has a significant manufacturing base with 20% employment in the manufacturing sector. The region has the opportunity to sustain these industries and their experienced workforce through diversification and innovation. A number of foreign-owned industries from Asia, Australia, and Europe are located in the region. The corporate and economic ties with these nations are connections to global markets.

The Hoosier Heartland region has extensive market coverage - about 7 million population and several cities of 50,000 or more are accessible within a two hour drive time.

The region has a diversified portfolio of business and industry clusters – the Biomedical/Biotechnology (Life Sciences), Energy, IT, Agribusiness, Manufacturing, Advanced Materials, and Defense and Security clusters all have large employment. Similarly, mapping of occupation clusters based on the knowledge and skills of the labor force, shows large numbers of regional workers in the Skilled production workers; Agribusiness and Food technology; Health care and medical science; Legal and financial services; Managerial, sales, marketing and HR; Primary/secondary and vocational education; and Postsecondary education and knowledge creation clusters have large employment. Sustaining and nurturing these clusters, as well as using recently developed online tools to assist in assessing available skills and how well they match the needs of regional industry clusters, will help support and increase the region's competitive advantage (<http://www.statsamerica.org/innovation/>).

The region is rich in patents and inventors and there are considerable efforts in converting ideas and inventions into commercial products. The institutional framework to facilitate commercialization of academic and industry research is available: Purdue Research Park and Inventrek are good examples. The Hoosier Heartland region can (and does) leverage these resources for technology transfer from academic and industry research laboratories to successful high technology based businesses.

Advance livable communities and ensure a sustainable environment

Livable communities

Asset mapping shows that there is additional carrying capacity in the regional wastewater treatment facilities, and that the interstates and arterial roads are carrying freight and general road traffic adequately. The region can hold additional population and businesses without burdening the infrastructure system. However, some kind of regional collaboration to provide a wider coverage of public transit will be helpful for the elderly, disabled, and the low income population and communities in general. A region-wide public

transportation system connecting (especially) rural areas to employment and health centers and family resources will help in many ways. The region should also consider promoting multi-modal hubs, such as Lafayette. Businesses and communities should have mobility options within the region and connectivity to continental and global markets.

Analysis shows that the availability of broadband services is not uniform in the region. Further research is necessary to assess the coverage and strength of broadband services. Broadband infrastructure is necessary for local and regional economic development. The region has fiber optic network and connection to Internet-2 through its educational and other institutions.

Healthcare is another area which will benefit from intervention at the regional level. Access to hospitals, general purpose healthcare facilities, and specialists is not uniform in the region. Underserved areas have been identified by the state and federal governments. The Hoosier Heartland region can also look into promoting healthy and active living in the communities. Developing a network of fresh and local food markets and advocating the use of non-motorized modes of transportation, such as bikeways, pathways, trails, and sidewalks in urban and rural areas will be helpful. The demographic analysis shows that there is a large group of elder population which is expected to increase in future, and the region should prepare for their health and living needs. Examples include SPARC, a nonprofit, working in the area of illness prevention through regional collaboration in a four county region located in Connecticut, Massachusetts, and New York.

The Hoosier Heartland region has a diversity of cultural and arts institutions and boasts a rich historic heritage. The creative milieu (culture and arts) could be promoted and used for local and regional development.

Sustainable environment

Asset mapping shows that the Hoosier Heartland region is well endowed with natural assets - there is plenty of fresh water and prime farmland. Both of those resources are scarce globally. With only 8% of the land developed, the region has enough land to accommodate new development. This presents an opportunity for the region to promote sustainable development practices, smart growth, green infrastructure, and best management practices for watershed conservation.

The region is well suited for the development and use of renewable sources of energy, particularly wind power and cellulosic fuel, such as ethanol and biodiesel. The town of Reynolds, known as “BioTown USA,” is a remarkable initiative to achieve energy self sufficiency. The region is a pioneer in harnessing wind power energy, developing zoning regulations for small and large wind farms, and promoting wind farms for tourism in Indiana. The region can become a pioneer in integrating renewable energy infrastructure into community development and planning.

Strengthen education and workforce development to enhance diversity and human capital

Education and workforce development

The Hoosier Heartland region has premier educational institutions for undergraduate and graduate studies. There are world class facilities for graduate education and research in science and engineering. The region is a pioneer in integrating science, technology, engineering, and mathematics (STEM) curriculums in middle and high schools through Project Lead the Way (PLTW) and other programs. With 80% of Middle and High Schools offering PLTW, the region can become a role model for other regions in the nation. Whether there is actually a “brain drain” issue or not, the Hoosier Heartland region would profit by continuing to develop a “quality of life” attractive to young professionals. The efforts undertaken by Ann Arbor, MI and Austin, TX are good examples.

Diversity and human capital

Asset mapping shows that the region is becoming more diverse, the universities have a diversified student population from 170 countries, and more than 30 different types of languages are spoken at home. Support for English as a second language teaching is needed for several language groups, with the Hispanic population having the greatest number of non-English speakers in 2000. There are also many opportunities to develop strategies for integrating and assimilating the international population into regional community life. Diversity is an asset which can be promoted and marketed globally.

Data Sources:

Various sources of data are used in this report for mapping, charts, and tables. They include data available from the IndianaMap; Indiana Spatial Data Portal; Decision Data Resources (WITS) and Innovation Economy 360 (I-E 360); Environmental Systems Research Institute (ESRI) base layers; Federal Highway Administration (FHWA); Federal Aviation Administration (FAA); Federal Railroad Administration (FRA); National Transportation Atlas Database (NTAD); America 2050 Initiative; Regional Plan Association, New York; State Government of Indiana offices (Indiana Department of Transportation, Indiana Department of Environmental Management, Indiana Department of Natural resources, Indiana Office of Utility Consumer Counselor, Indiana State Department of Health, Indiana Economic Development Corporation, and Indiana Office of Energy Development); Bureau of Economic Analysis; Dun and Bradstreet; Volunteering in America database; American Public Transit Association (APTA); Freight Analysis Framework 2002 (FAF 2.2); Indiana Fiber Network; I-Light; Indiana Coalition for the Arts/Foundation; Indiana Grantmakers Alliance; National Register of Historic Places; U.S. Census Bureau; Purdue University; EDIT (European Distributed Institute of Taxonomy); Environmental Protection Agency; U.S. Geological Survey (USGS); National Agricultural Statistics, U.S. Department of Agriculture (USDA); Economic Modeling Specialists, Inc.; Indiana University; Indiana Business Research Center; National Science Foundation; Workforce Innovation in Regional Economic Development (WIRED); Tecumseh Area Partnership (TAP); Local Decision Maker; and Purdue Center for Regional Development's own cluster, analytic and GIS databases.

The maps were created by using ESRI ArcGIS 9.3 and various extensions such as Spatial Analyst, 3-D Analyst, and Network Analyst.

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