Utilities are essential to the modern lifestyle. Most of us wouldn’t want to live without lights, water, air conditioning, central heating, electric or gas cooking appliances, and indoor plumbing. We don’t think too much about these necessities of living until we are suddenly without them – for example, during hot spells in summer or cold snaps in winter, when demand can sometimes exceed supply.

Most of us probably don’t ponder the specifics of the utility industry outside of knowing which utility companies serve our needs at home or work. But the utility sector is a significant one in our economic structure, and we can learn about it through the most current Economic Census conducted (in 1997) by the Census Bureau. Details collected from the utility sector show there were 418 Indiana establishments engaged in the utility business, with revenues nearing $10 billion and employment of 18,511.

The utilities sector, a.k.a. NAICS* Sector 22, includes those establishments that provide electric power, natural gas, water supply and sewage removal. Utility revenues accounted for approximately 2.5% of all revenues, receipts, sales and value added (as (continued on page 2)
calculated from the sectors in the economic census for Indiana).

Within the utility sector, specific activities vary by utility in Indiana. Electric power (NAICS code 2211) includes generation, transmission and distribution and is by far the largest industry in the utilities sector — with $6.8 billion in revenue and 15,202 employees. Natural gas (NAICS code 2212) includes distribution and accounted for $2 billion in revenue and 1,820 employees working in 76 establishments. Water supply and sewage services (NAICS code 2213) were provided through 147 establishments, employing 1,489 and generating revenue of $247 million.

Electric power generation, transmission and distribution accounted for 86% of the utility sector’s payroll, 82% of the sector’s employment, 75% of revenue and 47% of establishments (see Figure 1).

Electric power distribution is the largest component of the three six-digit-level industries that comprise the electric power sector: distribution, fossil fuel electric power generation and hydroelectric power generation (see Figure 2). Electric power distribution accounted for 73% of the establishments (187 among these three six-digit industries) and generated $3.2 billion in revenue in 1997. The other two six-digit industries’ revenue and employment data were withheld to avoid disclosure of specific establishments. (The Census Bureau is bound by law to protect the confidentiality of individual establishments, companies and enterprises.)

Nationally, the utilities sector reported revenues of $412 billion, employing nearly 703,000 workers at more than 15,000 locations. Texas, with revenues of $74 billion, and California, with revenues of $27 billion, led all states. Nationwide, the electric power industry generated $269 billion in revenues, while the natural gas industry accounted for $137 billion.

While the Economic Census can provide significant statistical detail on the utility sector in Indiana, it cannot provide us (for aforementioned legal reasons) with the names of those utility companies. But we can look to other resources, such as directories and other public information, to discern specific companies that provide us with, for example, the electricity that is essential to us for life and work. Indiana has three types of electric utilities: investor-owned utilities, municipally owned electric utilities and rural electric cooperatives.

Investor-owned utilities operate both generation and distribution facilities and own the biggest share of generating capacity in the state.

---

**Figure 1: Indiana Utility Sector Shares (%)**

**Payroll, Revenue, Employment and Establishments**

- **Payroll ($867.6 million)**
  - Electric Power: 86%
  - Natural Gas: 9%
  - Water & Sewage: 5%

- **Revenue ($9.07 billion)**
  - Electric Power: 75%
  - Natural Gas: 22%
  - Water & Sewage: 3%

- **Employment (18,511)**
  - Electric Power: 82%
  - Natural Gas: 8%
  - Water & Sewage: 10%

- **Establishments (418)**
  - Electric Power: 47%
  - Natural Gas: 35%
  - Water & Sewage: 18%
The Economic Census functions as the primary source for data vital to both the public and private sectors, and illustrates a portrait of the economy every five years, from the national to the local level.

The Economic Census, mandated by federal law to be collected every five years, is a confidential and industry-customized survey that tabulates several key statistics for industry, including the number of establishments, number of employees, payroll and measure of output.

The 1997 Economic Census also marks the premiere of a new business classification system that will be used to measure the U.S. economy in the new century. The North American Industry Classification System (NAICS) contains measurements of the 21st-century economy including, for the first time, information and high-tech support services and entertainment sectors, among others.

The most efficient way to obtain the Economic Census data, which is released in stages, is via the Internet, at www.census.gov/econ97. The Census Bureau uses American Factfinder to give information-seekers quick reports with highlights of available data. Users may specify tailored queries and download results to their own computers in a variety of formats. Highlights from the data include:

- The U.S. information sector, including publishing, motion pictures, broadcasting, telecommunications, information and data processing services, generates 3.1 million jobs, a $129 billion annual payroll and $623 billion in receipts at 114,000 locations.
- The top five manufacturing subsectors, measured by shipment value, are transportation equipment ($572 billion), computers/electronic products ($438 billion), food ($424 billion), chemicals ($420 billion) and machinery ($270 billion).
- The computer/electronic manufacturing sector generates 1.7 million jobs, a $73 billion annual payroll and $438 billion in shipments at 17,000 locations.
- The manufacturing sector employs the most people at 17 million, followed by the retail trade and the health care/social assistance sectors, which each employ 14 million.

Figure 2: Indiana’s Electric Utility Industry

<table>
<thead>
<tr>
<th>Three major components</th>
<th>Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Power Distribution</td>
<td>137</td>
</tr>
<tr>
<td>Fossil Fuel Electric Power Generation</td>
<td>32</td>
</tr>
<tr>
<td>Hydroelectric Power Generation</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 1997 Economic Census

(continued on back cover)
Energy Use in Indiana

Consumers in Indiana spend more than $14 billion per year on energy, with purchases of electricity and petroleum accounting for most of the total. Energy consumption is a gauge of economic activity and quality-of-life standards. Its use affects all Hoosiers. Table 1 gives estimates of the percentage of energy consumption and expenditures by sector in 1997, the most recent year for which data are available. The percent of net energy use by fuel type for each sector is displayed in Table 2.

Coal, natural gas and petroleum provide 49%, 19% and 30%, respectively, of the total primary energy sources to the state. Other fuels, which make up less than 2%, include hydro, biomass and alternative fuels. There are no nuclear plants located in the state (see Figure 1).

Approximately 40% of the total primary energy consumed in Indiana is used by power plants for the generation of electricity. In 1998, the electric generation was 117,521,000 megawatt-hours of electricity, which ranked 10th in the country. Coal-fired power plants accounted for 98% of the utility electric power generation in the state, consuming 55 million tons of

---

IN THE SPOTLIGHT: PART II

Indiana ranks eighth in the United States in coal production, approximately 80% of which goes to electric power plants within the state.

### Table 1: Indiana's Energy Consumption & Expenditures by Sector, 1997

<table>
<thead>
<tr>
<th>Sector</th>
<th>Energy Consumption (%)</th>
<th>Energy Expenditures ($ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>11.1</td>
<td>3.2</td>
</tr>
<tr>
<td>Commercial</td>
<td>6.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Industrial</td>
<td>36.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Transportation</td>
<td>23.1</td>
<td>5.1</td>
</tr>
<tr>
<td>Electrical System Losses*</td>
<td>23.5</td>
<td>----</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>14.1</td>
</tr>
</tbody>
</table>

*This is the total amount of energy lost during generation, transmission and distribution of electricity used by all sectors.

Source: U.S. Department of Energy, Energy Information Administration

### Table 2: Percent of Net Energy Use by Fuel Type for Each Sector, 1997

<table>
<thead>
<tr>
<th>Sector</th>
<th>Residential (%)</th>
<th>Commercial (%)</th>
<th>Industrial (%)</th>
<th>Transportation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>57.3</td>
<td>50.0</td>
<td>30.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Petroleum</td>
<td>8.6</td>
<td>6.7</td>
<td>23.3</td>
<td>97.4</td>
</tr>
<tr>
<td>Coal</td>
<td>1.0</td>
<td>3.5</td>
<td>28.0</td>
<td>0</td>
</tr>
<tr>
<td>Electricity*</td>
<td>30.4</td>
<td>39.3</td>
<td>15.3</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Other**</td>
<td>2.7</td>
<td>0.5</td>
<td>3.1</td>
<td>0.8***</td>
</tr>
</tbody>
</table>

*This does not include the energy loss during generation, transmission and distribution of electricity.

**This includes wood, geothermal and solar.

***Ethanol

Source: U.S. Department of Energy, Energy Information Administration
coal. About 10% to 15% of the electricity sales are exported to other states.

On average, less than one-third of the energy used by conventional power plants reaches the consumer due to energy losses in plant cooling water, heat loss from power plant stacks, pollution-control equipment and resistance in transmission lines. Average retail electricity rates in the state are among the lowest in the country and have been very stable. The overall average price for all classes of consumers is $0.0534 per kilowatt-hour, which ranks 10th lowest in the country. The industrial sector consumes almost 50% of the electricity used within the state.

Indiana produced over 36 million tons of coal in 1998, employing slightly fewer than 3,000 miners in the southwest and west-central portions of the state. Indiana ranks eighth in the United States in coal production, approximately 80% of which goes to electric power plants within the state. With increasing restrictions on coal-fired electricity production, however, coal production in Indiana declined 8% in 1999.

Natural gas within the state is used mainly in boilers, heaters and furnaces for residential, commercial and industrial applications. Other uses include vehicle fuel and chemical feedstock. Table 3 shows the Indiana natural gas energy consumption and expenditures by sector for 1998. On average, expenditures for natural gas may range between 15% and 20% of the total state energy expenditures. Almost 60% of the consumption is used by industry.

The transportation sector uses 23% of the state energy consumption and relies almost entirely on petroleum as a source of fuel. Of the total Indiana petroleum energy consumption, about 70% is used in the transportation sector. Annual consumption of motor gasoline, diesel fuel and other petroleum-based transportation fuels totals about 5 billion gallons, of which just under 3 billion is gasoline and 1.25 billion is diesel.
Indiana Output Outpaces the Nation

The latest data for Gross State Product (GSP) indicate that Indiana’s economy grew faster than the nation both in the most recent year measured (1997–98) and over the past decade (1988–98). GSP, as measured by the U.S. Bureau of Economic Analysis, is for the states what GDP is for the nation — a measure of the value of all goods and services produced within the state during a year.

Indiana’s GSP advanced by 6.5% in 1998 (14th in the nation), while the nation’s grew by 6.1%. Washington state edged out Colorado for top honors in the nation at 9.4%, followed by Arizona, Georgia and New Hampshire (see Figure 1).

Over the longer period, 1988 to 1998, Indiana’s GSP grew by an average annual rate of 5.8% (21st in the nation) as the U.S. GDP rose 5.6%, led by Nevada and Utah*. During this period, Indiana continued to rank as the 15th-largest economy in the nation, although Washington state advanced over Indiana, Missouri and Maryland, from 17th to 14th place, and Maryland slipped behind Indiana to 16th place.

Top-Performing Sectors
The industries that led Indiana’s growth over the past decade are shown

---

Figure 1: Percent Change in Gross State Product, 1997–98, 50 States and District of Columbia

Total U.S. percent change = 6.1%

Source: U.S. Bureau of Economic Analysis
in Figure 2. At the top of the list are non-depository institutions (mortgage and other loan companies) and security brokers. With the remarkable advances in the financial sector, this is no surprise. Yet in both of these sectors, Indiana again outperformed the nation.

Riverboats made our amusements and recreation sector a top performer. In fact, with the exception of electronic equipment, Indiana outperformed the nation in each sector noted in Figure 2. The state’s greatest advantage over the nation during the past 10 years came in textile mill products (7.4% growth in Indiana versus 1.1% in the nation) and in motor vehicle production (6.4% versus 1.4%).

*These data are not adjusted for inflation and include the District of Columbia in the rankings.

Per Capita Personal Income Growth
Per capita personal income (PCPI) in Indiana rose to $26,143 in 1999, according to figures released by the U.S. Bureau of Economic Analysis. This was a 3.8% increase for the year, compared with a national growth rate of 4.5%. Massachusetts led the nation at 6.5%, while North Carolina realized only a 2.2% increase.

When viewed over the course of the past decade, PCPI in Indiana advanced faster than in the nation. This reverses a two-decade pattern in which Indiana trailed the nation in growth of PCPI (see Figure 3).

The economic and demographic changes of the past 40 years have vastly altered the PCPI rankings of (continued on page 8)
IN the News (continued from page 7) states (see Figure 4), Indiana finds itself coupled with California and Ohio in moving down 12 places in the PCPI ranking (from 21st in 1959 to 33rd in 1999). All of Indiana’s neighbors also fell in the rankings during this period: Kentucky moved down just one place from 43rd to 44th; Illinois fell from eighth to 10th; Ohio moved from 14th to 26th; Michigan went from 12th to 21st; and Wisconsin fell from 19th to 24th. The biggest gains were made by Virginia (19 places, from 36th to 17th) and Georgia (42nd to 25th). As a matter of national policy, these results should not be disturbing. The top eight gainers included only one state (Minnesota) that was in the top 25 in 1959. South Carolina was 50th and North Carolina 46th in 1959, and they advanced to 41st and 34th, respectively.

Several western states with fast population growth moved down dramatically in the rankings. (Increased numbers of children and retired persons tend to reduce PCPI.) In a similar fashion, slow population growth can lead to higher PCPI rankings (South Dakota rose from 47th to 39th).

**Figure 4: Change in Per Capita Personal Income Rank, 1959–99, 50 States and District of Columbia**

Southeast gains, West loses

Source: U.S. Bureau of Economic Analysis
The national unemployment rate for August was 4.1%.

Only 23 of Indiana’s 92 counties had a higher unemployment rate in August than the 4.1% U.S. average.
Unemployment Rate Takes Seasonal Dip

Indiana’s unemployment rate fell to 3.3% in August, down from 3.7% in July. A dip in the jobless rate is common in August, as the employment situation adjusts to the beginning of the school year.

Figure 1 on page 9 shows the August unemployment rates by county, ranging from a high of 8.3% in Switzerland County to a low of 1.5% in Hamilton County and 1.6% in Boone County.

The Indiana labor force in August was estimated at 3.13 million people, according to figures released by the Indiana Department of Workforce Development. This represents a 1.2% drop from the previous month. IDWD estimated that the number of employed workers stood at 3.02 million, down about 28,000, or 0.9%, from July.

The number of unemployed Hoosiers also dropped in August to 104,000. That was 11,700 lower than the previous month’s jobless number. All data are unadjusted for seasonality.

The estimated labor force contracted by more than 1% but the number employed shrank by less than 1%. Therefore, the number of unemployed workers declined. Indiana’s August unemployment rate (3.3%) remained significantly below the national rate (4.1%).

Metro Areas Post Low Unemployment

Most metropolitan areas in Indiana boast unemployment rates lower than the state or national averages. That pattern continued in August.

The Indiana Department of Workforce Development tallies employment data for 12 metropolitan areas in Indiana. Figure 2 shows the August unemployment rates for these 12 areas.

In general, metro areas in Indiana tend to have lower unemployment rates than more rural counties. Of our state’s 92 counties, 37 are included in metropolitan statistical areas (MSAs). Of these 37 metropolitan counties, 22 — about 60% — produced lower unemployment rates in August than the Indiana state average.

Table 2 shows how all metro area counties together stack up against all non-metro counties.

What’s the Difference Between Employment and a Job?

Unemployment reports often cite the number of people employed at a given time. Other reports talk about the number of jobs. And the numbers don’t come out the same. What’s the difference?

“The difference is where the person lives versus where the job is located,” said Charles Mazza, director of Labor Market Information at the Indiana Department of Workforce Development. Published reports often use the word “employment” to refer to both categories of data, which may create some confusion.

Data for the number of people employed and unemployed, explained Mazza, are based on where people live. A Lake County resident who commutes to Porter County to work will show up in the employed statistics for Lake County. So unemployment rates always measure the level of unemployment among residents of a county.

Jobs are another measure of people at work. But jobs, also termed employment, are counted in the county where the work is located. That same Lake County commuter working in Porter County will be part of Porter County’s employment number.

Therefore, Indiana residents who hold jobs in Illinois, Michigan, Kentucky or Ohio are not part of Indiana’s jobs total.

“Unemployment rates are by place of residence,” said Mazza.

“Employment, or the jobs number, is by place of work.”

IN Context reports on employed and unemployed by county of residence in the section titled “IN Local Areas.” The section titled “IN the Workforce” reports on employment data, the jobs number by place of work.

<table>
<thead>
<tr>
<th>Table 1: Indiana Labor Force Comparing metro and non-metro counties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total Labor Force:</td>
</tr>
<tr>
<td>Employed:</td>
</tr>
<tr>
<td>Unemployed:</td>
</tr>
<tr>
<td>Unemployment Rate:</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Workforce Development
non-metro area counties taken together. For August, the rural counties averaged 3.7% unemployment, slightly higher than the statewide rate. Metro counties as a group had an average unemployment rate of just 3.2%.

Compared to the 4.1% U.S. unemployment rate in August, all but two Indiana metro areas exhibited lower rates. Terre Haute unemployment was estimated at 4.8% and Gary came in at 4.3%.

The Indiana metro area with the lowest August unemployment rate was Lafayette, with a rate of only 2.2%. This places Lafayette well below the Indiana state average unemployment rate of 3.3%. Of the 337 national metro areas whose unemployment rates are published by the U.S. Bureau of Labor Statistics, only 29 had a lower unemployment rate than Lafayette. Just under Lafayette, at 2.1%, was Iowa City, Iowa. Tied with Lafayette at 2.2% was State College, Pennsylvania.

The second lowest August unemployment rate in the state was 2.6%, shared by Bloomington and Indianapolis. Others around the country at 2.6% were Knoxville, Tennessee, and Orlando, Florida. Fort Collins-Loveland, Colorado, trailed slightly with a 2.9% rate.
When you think of coal mines and the miners who descend into the earth, the hills of West Virginia, Kentucky and Pennsylvania probably come to mind. It may be somewhat surprising, then, to learn that coal mining is a significant source of employment and wages across southwestern Indiana, and in one county in particular.

Statewide, the coal-mining industry employed 3,000 persons in the fourth quarter of 1999, according to the latest tabulation of data collected from employers covered under Indiana’s unemployment insurance system. This total accounted for about one-tenth of 1% of covered employment in the state. Figure 1 portrays the slow decline of Indiana’s coal-mining industry over the past 11 years. The statewide shares of covered employment and wages have declined by roughly half since the second quarter of 1988. On the positive side, it appears that mining wages are relatively high, with the share of wages usually accounting for double the employment share, as shown in Figure 1. In this study period, the share of covered wages attributed to the coal-mining industry peaked in 1990’s second quarter, and has subsequently dropped to less than half of that peak level.

Although coal mining is only a bit player on the statewide stage, the industry is an economic force in southwestern Indiana.
Although coal mining is only a bit player on the statewide stage, the industry is an economic force in southwestern Indiana. Across 15 counties in the southwest region, coal-mining employment in the most recent quarter accounted for 1% of the workforce, 10 times greater than the comparable state ratio. In Pike County, the disparity was even greater, with coal accounting for 16% of the county’s covered employment, a proportion 157 times greater than the state ratio and 16 times greater than the ratio for the entire 15-county area.

About one in six Pike County workers was employed in coal mining, but the industry accounted for an even larger proportion of wages paid by county employers. Approximately one of every four dollars in Pike County wages in the last quarter of 1999 came from coal mining. Ten years earlier, the Pike County shares stood even higher, at 22% of employment and 39% of wages. Figure 2 shows the change in the industry’s share of Pike County employment and wages.

Figure 3 portrays the 15 counties in southwestern Indiana where there is measurable activity in the coal-mining industry. In this map, the counties are aggregated into regions to comply with disclosure restrictions on employer data. Coal’s share of employment currently exceeds 5% in the region comprising Sullivan and Greene counties. In Pike County and Warrick County, combined, just under 5% of workers were employed in coal mining in the last quarter of 1999. In three of the four remaining regions, however, less than 1% of covered workers were employed in coal. Coal may not be king in Indiana, but the industry is a significant employer in the southwestern corner of the state, most notably in Pike County.
Indiana’s August Employment Growth Followed Regional Trend

Indiana’s employment growth for August mirrored the trend among most of its neighboring states. The Indiana Department of Workforce Development reported 2.98 million nonfarm jobs in the month, up 0.7% from August 1999.

This number represents the number of jobs located in Indiana — including jobs held by residents of other states who work in Indiana. It does not count Indiana residents who work outside Indiana.

Jobs growth in Illinois, Michigan and Ohio was almost identical to Indiana’s (see Figure 1). Kentucky led the region, though, with an increase of 2.4% over the year-earlier period.

Kentucky’s job growth has been consistently above 2% in every month this year.

The jobs numbers in Indiana, Illinois, Michigan and Ohio are starting to reflect the gradual easing of the growth rate in the general U.S. economy. Although employment continues to expand, the month-to-month increases were above 1% in the first three months of this year, but just under 1% in July and August.

When the U.S. Federal Reserve raises interest rates, often the first sectors of the economy to slow as a result are the sectors that manufacture items associated with major consumer purchases: automobiles, for example, or houses. Much of the manufacturing that takes place in Indiana, Illinois, Michigan and Ohio is associated with making cars or with making things that go into new homes.

The effect in Indiana can be seen in Figure 2. The blue line shows monthly nonfarm employment in Indiana, not seasonally adjusted, starting in January 1999. The gold line tracks total U.S. nonfarm employment, indexed to the Indiana figure. Throughout 1999, monthly employment gains in Indiana generally exceeded the rate of increase in the nation, but declines were sharper in Indiana, too. Starting in the second quarter of 2000, however, Indiana’s employment gains lagged those in the U.S. as a whole. Employment in Indiana experienced such strong growth in 1999 and early 2000 that August’s jobs total still is higher than the 1999 average. But the effects of higher interest rates are showing up clearly in the most recent figures.
Coal-Mining Employment Steady in Indiana

The coal-mining industry in Indiana employed 3,100 people in 1999, according to data recently released by the U.S. Bureau of Labor Statistics. Though this annual average is down slightly from 1998, coal jobs have held nearly steady in the state for five years. Indiana has about the same number of coal-mining jobs as Ohio (see Table 1). Kentucky, where coal ranks as one of the state’s major industries, has more than five times as many coal-mining jobs. Kentucky’s coal employment has sunk dramatically since the early 1990s, but the industry still accounts for nearly 18,000 jobs.


Compared to total state employment, coal mining comprises about one-tenth of 1% of all nonfarm employment in Indiana (see Figure 3), or about one in every 1,000 jobs. The percentage is similar in Ohio. In Kentucky, with many more jobs in coal mining but fewer total jobs, the proportion is far higher. Of all nonfarm jobs in Kentucky, about one in every 100 is found in coal mining.

Coal mining as a source of jobs across the nation has shrunk (see Figure 4). Coal’s share of U.S. employment was 0.07% in 1999, according to the most recent data. That’s only three-fourths of what its share was in 1995.

In Indiana, by contrast, coal industry employment in 1999 was 0.1% of state employment. Coal’s share has remained in the same range throughout the same five-year period: a small but stable segment of Indiana’s jobs picture.
Richmond. Rural electric cooperatives account for about 7% of the state’s generating capacity and include Hoosier Energy and the Wabash Valley Electric Cooperative.

*NAICS Note: The 1997 Economic Census marks the first published joining of NAICS, the North American Industry Classification System, with industry data. NAICS is the new business classification system that replaces the Standard Industrial Classification system begun 60 years ago. See “IN the Details” on page 3 for more details about the Economic Census.