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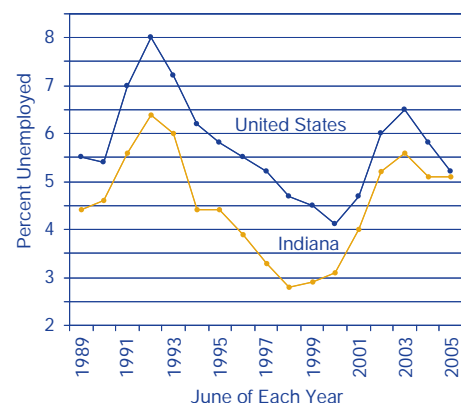
Fastest Growth in Housing Units

County	April 2000 through July 2004	
	Numeric Change	Percent Change
Hamilton	18,026	25.9
Hendricks	10,050	25.6
Hancock	3,670	16.9
Switzerland	586	13.9
Johnson	5,684	12.6
Boone	2,127	11.9
Tippecanoe	5,920	10.1
Jasper	1,088	9.7
Clark	3,891	9.4
Warrick	1,883	9.2

Source: U.S. Census Bureau

Unemployment for June 2005

Indiana's unemployment rate for June was 5.1 percent, slightly lower than the nation's 5.2 percent.* Compared to June of last year, Indiana's unemployment rate has remained steady, while U.S. unemployment has dropped from 5.8 percent. For a map of the latest rates by county, visit www.incontext.indiana.edu.



*Not seasonally adjusted

The Indiana Dichotomy: Economy Grows but Lags Nation

The economic expansion has picked up steam as every state in the nation experienced economic growth in 2004, according to new data released by the U.S. Bureau of Economic Analysis (BEA). Indiana's growth, however, lagged behind the national average.

These conclusions are based on preliminary estimates of gross state product (GSP), the most comprehensive measure of overall economic activity in each state. Using a prototype methodology designed to accelerate GSP estimates, the BEA data have been released a full year sooner than past GSP figures. This release estimates total state output in 2004, but estimates of output by industry for 2004 are still several months away.

Indiana's GSP in 2004 was \$208.4 billion, ranking the Hoosier state 15th in the nation for total output, a position Indiana has held steadily for several years (see **Table 1**). To overtake Washington and move into 14th place, Indiana's economy would have to grow by more than \$30 billion per year; and the gap to 13th place, Massachusetts,

is even greater at \$90 billion. Looking the other direction, Minnesota and Maryland are hot on Indiana's heels with economies less than one percent smaller than Indiana's.

Ranks: Use with Caution

Indiana's output growth of 3.6 percent over 2003 was slower than the U.S. average of 4.2 percent, ranking Indiana only 35th among the states for year-over-year economic growth (see **Figure 1**). A national organization focused on technology-based economic growth recently raised concerns among some Hoosier observers when it noted that Indiana ranked 43rd among the states in GSP growth. However, this ranking was based on the four-year GSP change from 2000 to 2004, which involves a very different base year for comparison than the figures cited above. In 2000, Indiana began a major decline in employment while much of the rest of the nation was still enjoying a growing economy (**Figure 2**). It is important to remember that rankings do not reveal the size of differences between states in

(continued on page 2)

TABLE 1: TOTAL REAL GSP (MILLIONS OF 2000 DOLLARS) IN THE MIDWEST, 2000 THROUGH 2004

State	2000	U.S. Rank	2001	U.S. Rank	2002	U.S. Rank	2003	U.S. Rank	2004	U.S. Rank
United States	9,749,104		9,836,571		10,009,433		10,289,220		10,720,296	
Illinois	464,257	5	465,299	5	465,826	5	470,101	5	485,231	5
Ohio	371,228	7	365,791	7	369,354	7	375,740	7	384,049	7
Michigan	337,185	9	328,228	9	333,714	9	340,972	9	345,980	9
Indiana	194,683	15	190,876	15	194,993	15	201,263	15	208,434	15
Wisconsin	176,244	19	177,842	18	181,153	19	186,350	19	194,093	19
Kentucky	112,737	28	113,530	27	116,269	27	120,508	26	124,079	27

Source: IBRC, using U.S. Bureau of Economic Analysis data

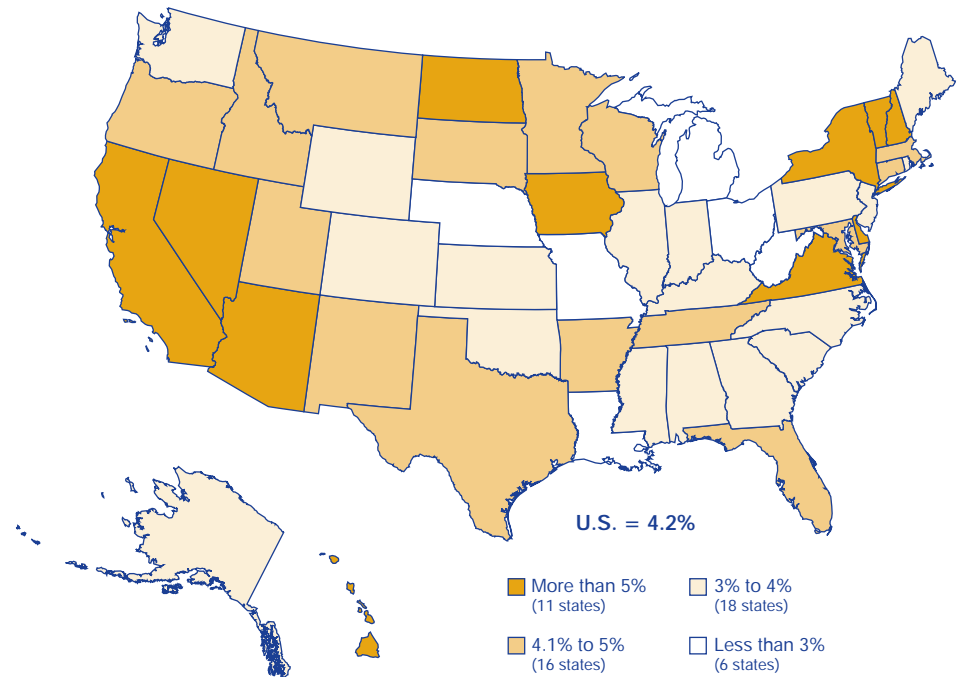
the underlying variable. For example, an increase of just one percentage point in Indiana's growth rate from 2003 to 2004 would have raised the state's growth rank from 35th to 19th.

Growth Contributors

Looking further into the GSP data, **Figure 3** shows which industries contributed to changes in GSP. For 2002 to 2003 (2004 industry data are not yet available), a period over which Indiana's GSP growth was notably stronger than the nation (ranked 19th in one-year growth). Indiana's manufacturing output (both durable and nondurable goods) as a percent of GSP led the national average by large margins, contributing more than a third of the total state growth in GSP that year. Even as we lost many manufacturing jobs during this period, our manufacturers became significantly more productive; their outputs increased as did their employee compensation.

Another significant contributor to Indiana's growth was trade, where we again outpaced the national average. During the 2002–2003 period, Indiana's GSP was also boosted

FIGURE 1: PERCENT CHANGE IN GSP, 2003 TO 2004



Source: IBRC, using U.S. Bureau of Economic Analysis data

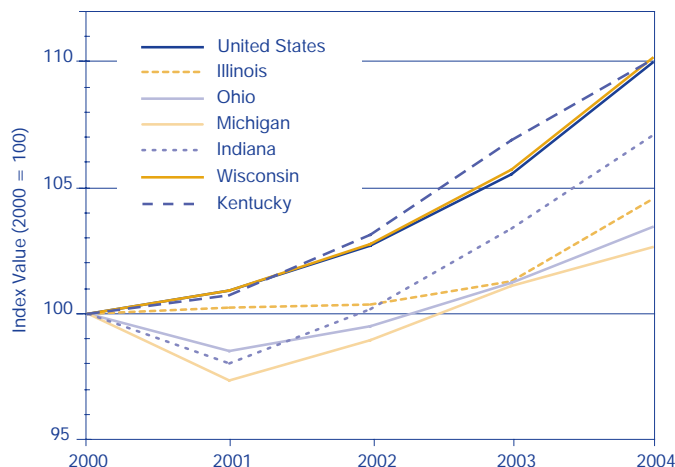
substantially by financial activities, but this sector trailed the national average (for the nation as a whole, finance was the biggest contributor to change in total GSP). Finally, another sector that helped Indiana grow, but not as much as the national average, was professional and business services.

Further discussion of the new GSP figures and detailed data for individual

states are available online at www.bea.gov/bea/regional/gsp.htm. More detailed rankings of Indiana compared to the nation are available on STATS Indiana's States in Profile at www.stats.indiana.edu.

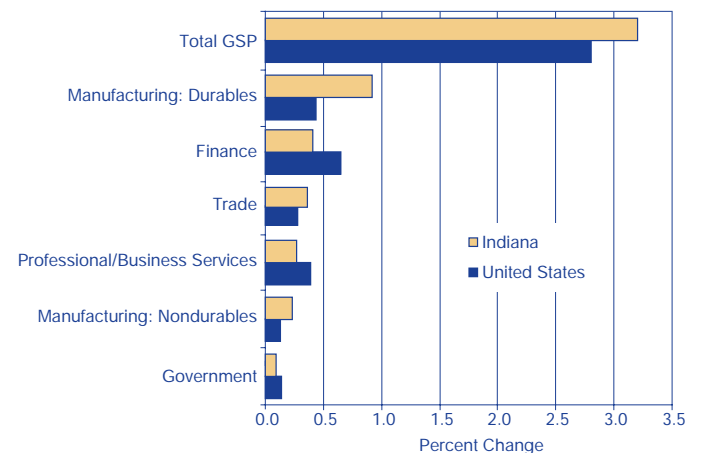
—Jerry Conover, Director, Indiana Business Research Center, Kelley School of Business, Indiana University

FIGURE 2: RELATIVE CHANGE IN TOTAL GSP, 2000 TO 2004



Source: IBRC, using U.S. Bureau of Economic Analysis data

FIGURE 3: CONTRIBUTION TO CHANGE IN STATE GSP, 2002 TO 2003



Source: IBRC, using U.S. Bureau of Economic Analysis data

The Hoosier Side of Louisville

The Area

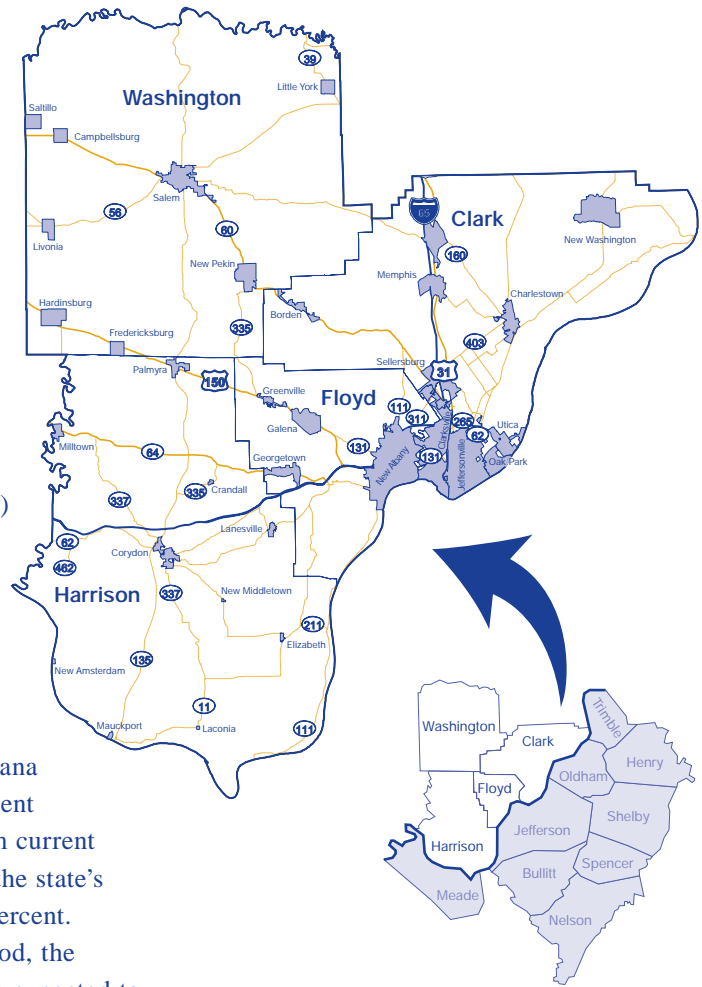
The Louisville Metropolitan Statistical Area (metro) includes nine Kentucky counties and extends north of the Ohio River to encompass Clark, Floyd, Harrison and Washington counties in Indiana. These four Indiana counties contribute over 236,500 people (roughly 20 percent) to the metro's total population, which exceeds 1.2 million. For purposes of this article, analysis will be focused on the Hoosier side of the Louisville region.

Indiana's Clark County, home to Jeffersonville and Clarksville, is the second largest of the 13 counties in the metro with a 2004 population of 100,706. Floyd County follows with a population of 71,543. Half of that county's population lives in New Albany, the largest city on the Indiana side of the metro.

Combined, the four Indiana counties have added about 7,000 residents since 2000. Looking at the percentage

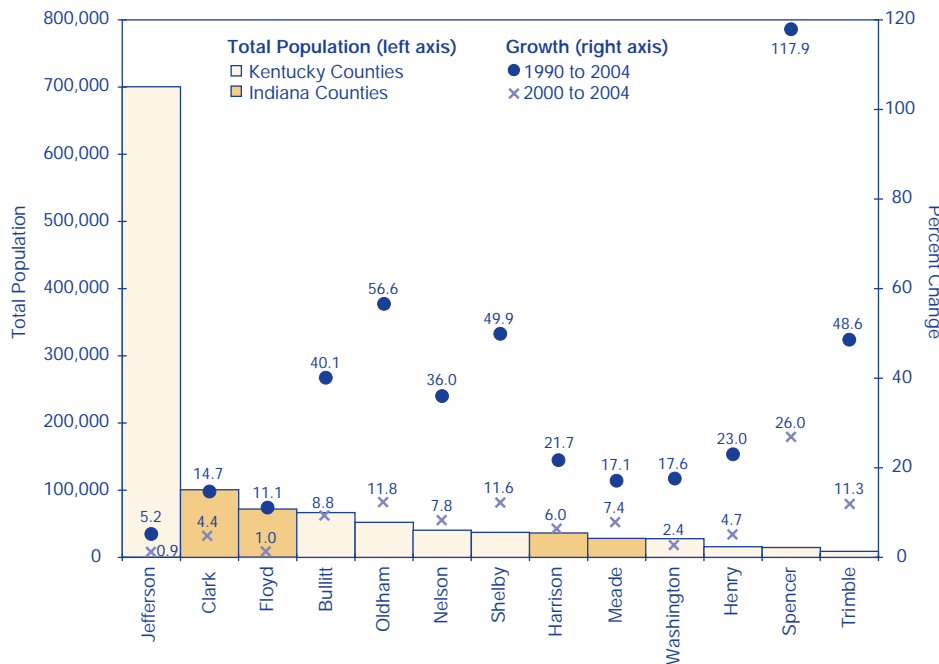
growth from 1990 and the growth from 2000, the Indiana counties have grown slower than many of their Kentucky counterparts (see **Figure 1**). The relatively low growth rates in the metro's three largest counties (Jefferson, Clark and Floyd) are indicative of the strong suburbanization trends in less populated areas.

Population projections from the Indiana Business Research Center indicate that, by 2020, the four Indiana counties will grow 5.8 percent (nearly 13,800 people) from current levels. This is slower than the state's anticipated growth of 8.1 percent. During this same time period, the number of senior citizens is expected to increase about 55 percent from Census 2000 levels; that is significantly faster than the state's overall rate of almost



41 percent. Meanwhile, the region is anticipated to have noteworthy declines in the number of school-age children and young adults.

FIGURE 1: LOUISVILLE'S 2004 TOTAL POPULATION AND GROWTH



Source: IBRC, using U.S. Census Bureau data

Major Industry News

Table 1 shows the region's largest employers. Although the largest single employer in the region is Caesar's Indiana, the four-county region mirrors the state's industrial mix, with manufacturing (19.7 percent), retail trade (13.3 percent) and health care (12.1 percent) being the three biggest industries.

Manufacturing: Major manufacturers include Beach Mold and Tool, JeffBoat, Discount Labels, Pillsbury, FKI Security Group, Gohmann Asphalt and Construction, and Colgate Palmolive.

The June closing of the bankrupt Tower Automotive plant in Corydon and the resulting loss of 600

manufacturing jobs has been a recent shock to the local economy; it was Harrison County's second-largest employer, and over half of its employees resided in the county.¹

On the upside, Canadian-based Martinrea (fluid systems and metal-forming) purchased Corydon's bankrupt Oxford Automotive plant earlier this year, keeping about 300 jobs in the county. In Clark County, MedVenture Technology Corp., a Louisville firm that designs and manufactures medical devices, announced it is relocating to Jeffersonville in the North Port Business Center (one of the state's certified technology parks). About 70 percent of its 156 employees are Indiana residents, and MedVenture plans to expand to over 500 employees in the next five years.² Currently, the average hourly wage at the firm is near \$24.

Retail Trade: Set to open just in time for the holiday season, the River Falls Mall in Clarksville will boast

TABLE 1: MAJOR SOUTHERN INDIANA EMPLOYERS

Company Name	Products or Services	Employment
Caesars Indiana	Resort Hotel and Casino	2,560
New Albany/Floyd County School Corp.	School System	1,700
U.S. Census Bureau	National Processing Center	1,550
Clark Memorial Hospital	Hospital	1,500
Greater Clark County School System	School System	1,250
Floyd Memorial Hospital & Health Services	Hospital	1,200
Beach Mold and Tool	Plastics, Tooling, Moldings and Assembled Parts	986
JeffBoat	Barge Construction	886
Indiana University Southeast	College/University	691
Discount Labels	Labels Manufacturing	665
Pillsbury	Refrigerated Baked Goods	571
FKI Security Group	Fireproof Files, Safes and Security	550
Gohmann Asphalt and Construction	Asphalt Manufacturing	500
Colgate Palmolive	Dental Cream and Other Products	450
Hitachi Cable Indiana	Brake Hose Assembly Manufacturing	430
Koetter Woodworking	Wood Products	400
The Medical Center of Southern Indiana	Hospital	350
American Commercial Lines	Marine Transportation/Communication	284
Green Valley Care Center	Nursing/Retirement Home	258
Kitchen Kompact	Kitchen Cabinets	250
AirGuard of Indiana	Air Filter Manufacturing	235
Adplex Rhodes	Promotional Print Services	235
Wyandot	Snack Foods	230
Silvercrest Children's Development	School/Residential Facility	220
Clarksville Community Schools	School System	217
ESSROC Materials	Cement Manufacturing	207

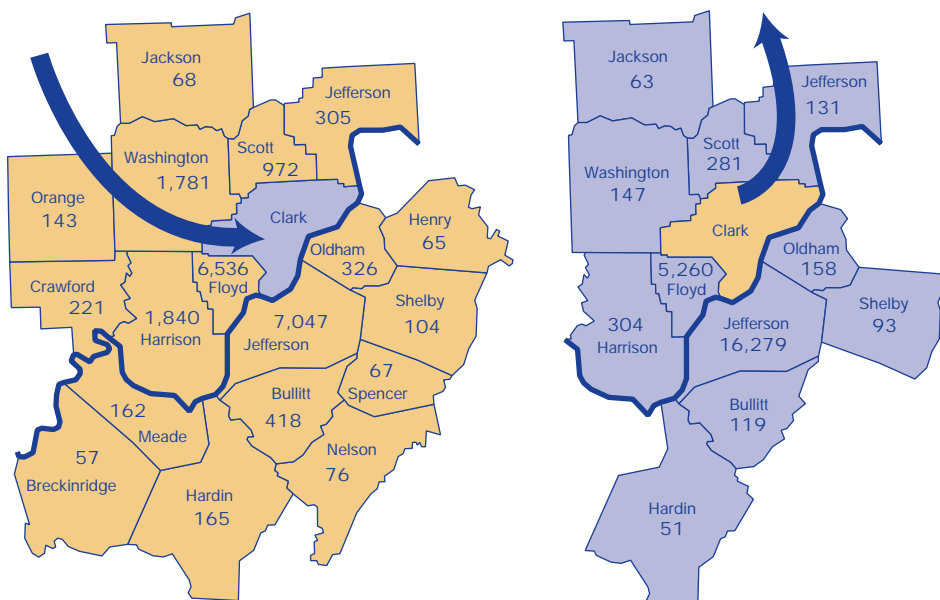
Source: Southern Indiana Chamber of Commerce

a new \$30 million Bass Pro store, complete with its own restaurant, an indoor archery range, an outfitting shop for boats and a 60-foot-tall, 50,000-gallon aquarium.³ The 280,000

square-foot mega-store will be the second-largest Bass Pro store in the nation (behind the flagship store in Springfield, MO). It is expected to be a boon to the tourism market in the area, as its seasonal seminars at other locations have drawn as many as 30,000 to 40,000 people, and it attracts an average of 2.8 million visitors annually.

Health Care: As seen from Table 1, two of the largest employers in the region are the county-owned hospitals in Clark and Floyd counties. A growing concern in the health care field is that private medical facilities will siphon the profitable procedures away from county hospitals, along with patients able to pay their bills, leaving the county hospitals to treat the indigent. In an effort to prevent this, Clark, Floyd and Harrison counties are three of four counties in the state to pass moratoriums on new health care facility construction (with Morgan County being the fourth). Currently, those moratoriums, except for the one in

FIGURE 2: COMMUTERS TO AND FROM CLARK COUNTY, 2000*



*Contiguous Counties
Source: IBRC, using Census 2000 Commuting Flows

Harrison County, are being challenged in federal court.⁴

Commuting

Clark County has the largest commuting flows on the Hoosier side of the border, according to the Census 2000 figures. Eighteen counties had at least 50 people commuting into Clark County, drawing almost 8,500 workers from Kentucky. Meanwhile, over 16,000 Clark County residents worked in Jefferson County, the heart of the Louisville metro (see **Figure 2**).

Wages and Compensation

Overall, the average weekly wage for the four-county region was \$574 for the third quarter of 2004—about \$80 less than the state rate. Compared to Indiana’s other metros, the average wages were higher than those found in the Indiana portion of Cincinnati–Middletown, Bloomington, Terre Haute and Michigan City–La Porte, but lower than the remaining 11 metros in the state.

At the industry level, all were below the statewide level, except for transportation and warehousing, where southern Indiana workers had a \$1 advantage (see **Figure 3**). Three industries accounting for about 3 percent of the total workforce had average weekly wages that were more than \$200 below the Indiana average for that industry: information, professional, scientific and technical services, and mining. Comparing these numbers to those from three years ago (2001:3), shows that all wages have increased, except those in professional, scientific and technical services, which declined by \$28 (a 4.3 percent drop).

When looking at the three industries employing the most workers (manufacturing, retail trade and health care), each saw significant average wage increases. In particular, manufacturing wages rose \$122 (19.2 percent), and health care wages saw a \$90 weekly increase (16.5 percent). Overall, management of companies and enterprises saw the largest increase in

wages, both numerically (\$290) and on a percentage basis (37.1 percent).

Notes

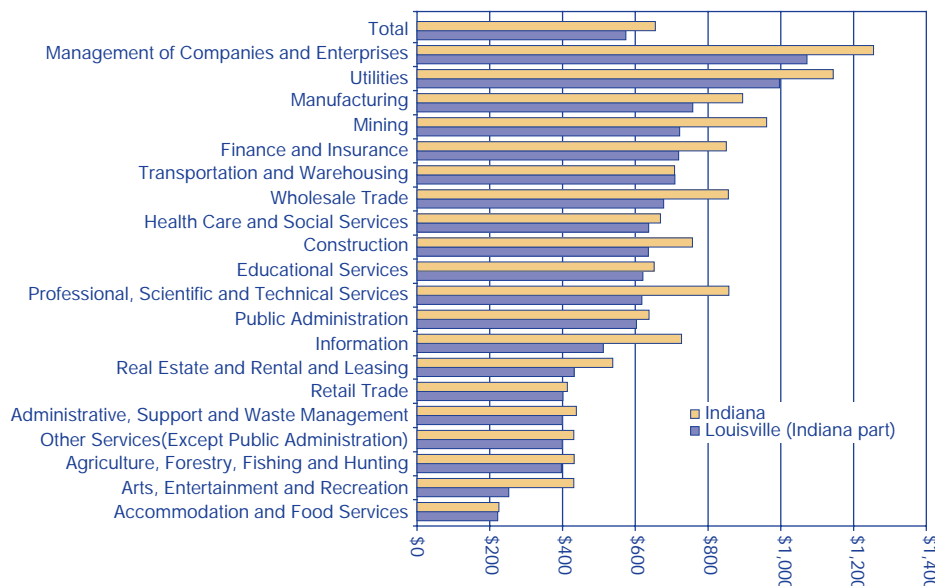
1. Charles Ewry, “What the loss of 600 Tower Automotive jobs will mean for Corydon,” *The Corydon Democrat* 10 June 2005.
2. Larry Thomas, “Jeffersonville woos MedVenture with \$5.5 million bond issue,” *The Evening News* 21 June 2005.
3. John L. Gilkey, “Bass Pro Shops set to open \$30 million store Nov. 14 in Clarksville,” *The Evening News* 2 June 2005.
4. Tom Murphy, “Debate over health care development takes legal twist” *Indianapolis Business Journal* 23 June 2005.

—Rachel Justis, Managing Editor, Indiana Business Research Center, Kelley School of Business, Indiana University

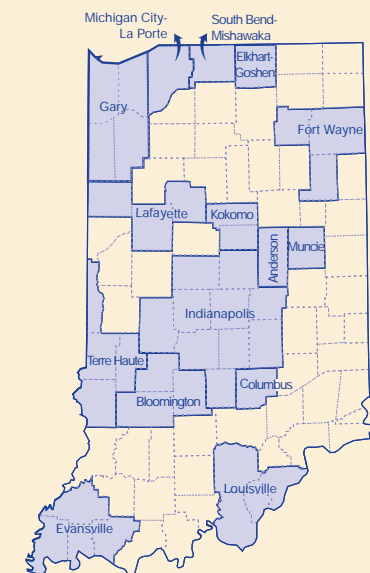
This article is part of an ongoing series covering Indiana’s metropolitan statistical areas. Gain access to this and the 10 previously published metros—Anderson through Lafayette—on the newly redesigned InContext website at www.incontext.edu. As you will see from the schedule below, the four remaining metro areas will all be available by the end of the year:

Month	Featured Metro
September	Michigan City–La Porte
October	Muncie
November	South Bend–Mishawaka
December	Terre Haute

FIGURE 3: WEEKLY WAGES AND COMPENSATION, 2004:3



Source: IBRC, using IDWD Census of Employment and Wage data



Indiana's Information Sector Primarily in Telecom and Publishing

Information sector data from the 2002 economic census has been released for the nation and the state. The information sector is comprised of seven subsectors, all primarily engaged in producing, processing and distributing information. Indiana had 2,267 establishments, with the bulk of its employment in telecommunications and publishing. The Hoosier information sector made up only 1.6 percent of the nation's establishments in this sector.

Figure 1 shows the make-up of the information sector in Indiana and the nation. Indiana's distribution of establishments is more concentrated than the nation's, with the telecommunication subsector outstripping the nation by 7 percentage points. Indiana's growth rate over the past five years in this sector has been almost half that of the nation's.

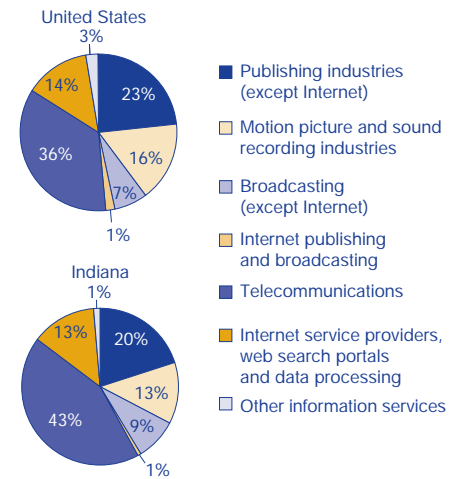
Figure 2 compares Indiana's information sector to the rest of the nation. At \$39,969, Indiana ranked 32nd in average earnings per employee.¹ Nine states came within 5 percent of Indiana's earnings: Oklahoma, Nevada, Arkansas and Wisconsin were above Indiana, while Utah, Rhode Island, Nebraska, Tennessee and Alabama fell just short of it.

Publishing Industry Highlights

Figure 3 looks at Indiana's second largest subsector: the publishing industry (except internet). Note that revenue data were not available for Indiana's largest subsector—telecommunications. In the publishing industry, the state generated approximately \$3.85 million per establishment, ranking 31st among the

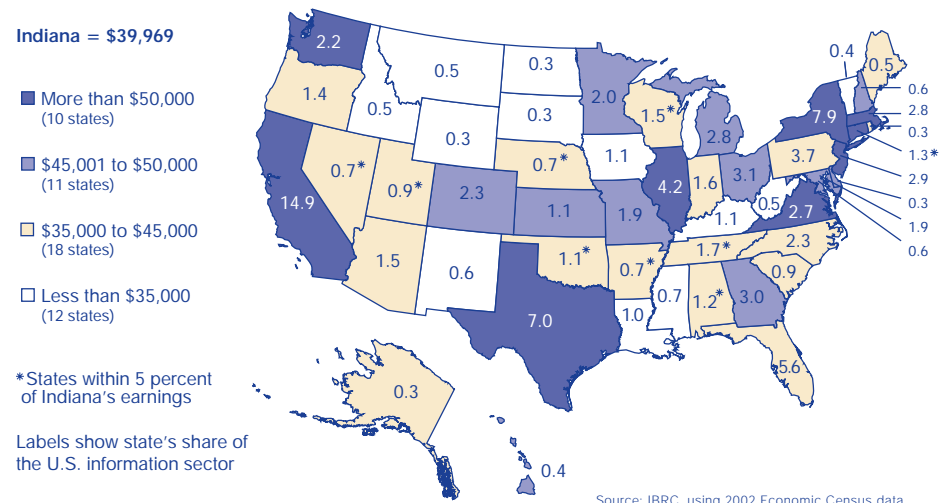
states and the District of Columbia. Indiana had approximately 31 employees per establishment engaged in publishing activities. Indiana's immediate Midwestern neighbors were yielding greater revenues than the state in the publishing industry but were utilizing more people to do so. The exception was Kentucky, which was generating substantial revenues but utilizing fewer employees than other states. Newspaper publishers in Indiana can claim the greatest number of businesses and employment in the

FIGURE 1: INFO SECTOR ESTABLISHMENTS



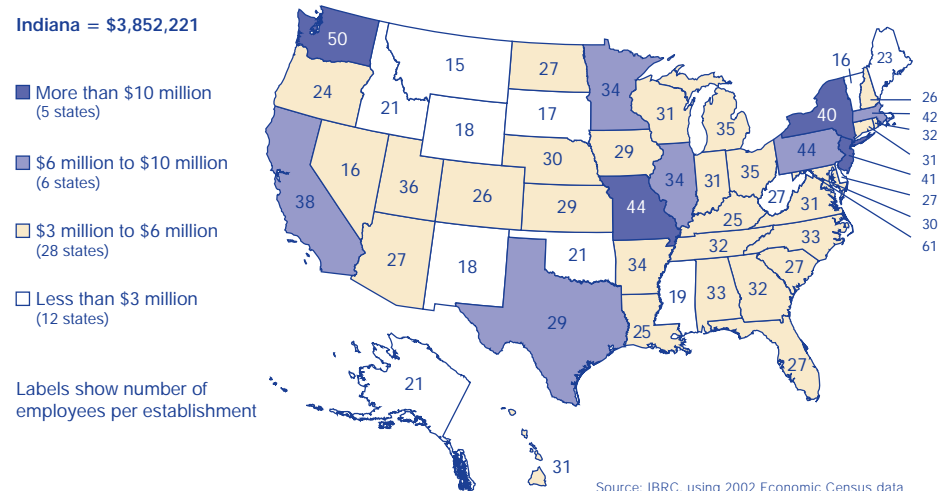
Source: IBRC, using 2002 Economic Census data

FIGURE 2: INFORMATION SECTOR AVERAGE EARNINGS PER JOB, 2002



Source: IBRC, using 2002 Economic Census data

FIGURE 3: PUBLISHING SECTOR REVENUES, 2002



Source: IBRC, using 2002 Economic Census data

industry and had 45 percent of the total revenue (see **Table 1**).

One might think more employees mean greater revenues, which seems to be the case (especially with the state of Washington, which had an average of 50 employees and generated \$29,324,230 per establishment).

Texas's publishing firms are getting a lot of mileage out of their employees. It ranked in the top 10 for revenue generation per establishment, but like Kentucky, did not utilize many employees (see **Table 2**).

Quite a bit of the county and place economic census data for Indiana is either not available or nondisclosable for confidentiality reasons, but **Table 3** looks at the counties and places for which we have data for the publishing industry. Marion County had by far the greatest number of publishing outfits in the state and generated the most revenue per establishment, even though it had fewer employees per location than Monroe and Madison counties. Hamilton County, which only had about 20 employees per establishment, ranks fifth in revenue. Almost half of Hamilton County's publishing businesses are in Carmel, and they contributed 62 percent of the revenue.

Notes

1. Average earnings per employee is annual payroll divided by the number of employees. Payroll includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation allowances, sick-leave pay and employee contributions to qualified pension plans. Also included are tips and gratuities received by employees from patrons and reported to employers.

—Amber Kostelac, Data Manager, Indiana Business Research Center, Kelley School of Business, Indiana University

TABLE 1: INDIANA'S PUBLISHING SUBSECTOR, 2002

Industries	Establishments	Rank	Revenue	Rank	Employees	Rank
Newspaper Publishers	186	1	\$782,236	1	8,838	1
Periodical Publishers	88	2	\$177,365	4	1,228	4
Software Publishers	77	3	\$250,904	3	1,498	2
Book Publishers	45	4	\$286,795	2	1,320	3
Directory and Mailing List Publishers	40	5	\$156,277	5	607	5
Greeting Card Publishers & Other Publishers*	20	6	\$103,036	6	598	6

*Not an actual NAICS industry; combined data to display results
Source: IBRC, using 2002 Economic Census data

TABLE 2: SELECTED STATES BY REVENUE PER ESTABLISHMENT IN THE PUBLISHING INDUSTRY, 2002

State	Revenue per Establishment	Rank	Employees per Establishment	Rank
Top Ten States				
Washington	\$29,324,230	1	50	2
District of Columbia	\$16,138,433	2	61	1
New York	\$12,778,310	3	40	7
Missouri	\$11,905,822	4	44	4
New Jersey	\$10,347,824	5	41	6
Pennsylvania	\$9,601,976	6	44	3
Massachusetts	\$9,276,787	7	42	5
California	\$8,842,783	8	38	8
Texas	\$7,577,459	9	29	28
Illinois	\$6,851,443	10	34	13
Indiana's Peer States				
Florida	\$4,480,832	26	27	32
Arizona	\$4,325,992	27	27	31
Tennessee	\$4,094,163	28	32	17
Wisconsin	\$4,053,992	29	31	22
Rhode Island	\$3,879,289	30	32	18
Indiana	\$3,852,221	31	31	23
New Hampshire	\$3,746,634	32	26	36
Nebraska	\$3,541,196	33	30	26
Oregon	\$3,503,865	34	24	40
South Carolina	\$3,278,773	35	27	34
Hawaii	\$3,216,292	36	31	20

Source: IBRC, using 2002 Economic Census data

TABLE 3: PUBLISHING INDUSTRY HIGHLIGHTS,* 2002

County	Establishments	Revenue per Establishment	Rank	Employees per Establishment	Rank
Marion	95	\$8,236,547	1	43	3
Monroe	17	\$6,273,647	2	52	1
Lake	15	\$4,113,667	3	31	5
Madison	5	\$3,605,800	4	49	2
Hamilton	24	\$3,330,292	5	20	9
Delaware	6	\$3,279,333	6	32	4
Wayne	6	\$2,350,667	7	31	6
Elkhart	18	\$2,300,944	8	27	7
Boone	7	\$2,089,143	9	9	10
La Porte	10	\$1,264,000	10	20	8
City or Town					
Indianapolis	91	\$8,511,132	1	44	3
Fort Wane	13	\$5,239,615	2	48	2
Lafayette	5	\$5,185,200	3	51	1
Carmel	13	\$3,792,231	4	17	4

*Counties and cities for which publishing industry revenue was available. Others were either not available or not disclosable
Source: IBRC, using 2002 Economic Census data

A New Approach to City-Level Unemployment Estimates

Beginning with the revised labor force estimates released in August, a change will be introduced in the computation of unemployment estimates for cities with over 25,000 residents. Previously, unemployment estimates for cities were based in large part on a city's share of the county's unemployment, as enumerated during the decennial census. Monthly unemployment estimates were computed at the county level, and the pro-rata share based on the census data was then applied to that unemployment estimate to arrive at a city-level estimate, like so:

$$\text{County unemployment estimate} * \text{census share for city} = \text{unemployment estimate for city}$$

However, there are problems with this approach. If a city's share of the unemployment was disproportionately high during the census for some reason (a recent closing of a significant employer, for example) the city will be "stuck" with that share of the county's total unemployment until the next census, regardless of how the actual distribution of unemployment between the city and the balance of the county might change during that decade. An additional issue involves the time lag between the actual census and the introduction of census-share ratios for the cities into the modeling software, which might take three to five years.

To respond to this shortcoming, the Bureau of Labor Statistics (BLS), which funds and oversees the production of Local Area Unemployment Statistics estimates, developed an alternate methodology, and Indiana is adopting it with these revised estimates. A residency assignment system maintained by

BLS geocodes Unemployment Insurance (UI) claims records based on the claimant address (i.e. assigns longitude and latitude) and assigns place codes based on that "rooftop" mapping of the address. If the address falls within a designated city based on that geocoding, the city's place code is appended to the record; if the address falls outside the city's defined limits, no city code is added—although both sets of records will be included in the county's UI claims for the period. In considering the city's unemployment claims for the period in question, only the records coded for the city will be included. For example, county claims for Floyd County would include all claims records coded for that county, but claims for New Albany would have an additional place code, allowing us to identify those records and arrive at a separate claims count for New Albany. In the case of a county with multiple large cities for which estimates are produced (e.g., Lake County), each city's claims are coded separately.

This new approach has the obvious advantage of reflecting month-to-month changes to the distribution of unemployment claims activity between the city (or cities) and the balance of the county. In the case of Lake County, the distribution of unemployment has shifted somewhat since the 2000 census. The new approach captures the fact that Gary and East Chicago now have a smaller proportion of the county's total unemployment than they

TABLE 1: LAKE COUNTY CITY ESTIMATES COMPARISON, JANUARY 2005

City	New Method: Disaggregated Claims		Old Method: Census Share	
	Unemployed	Rate	Unemployed	Rate
East Chicago	1,010	9.5	1,630	14.0
Gary	3,210	8.8	5,420	13.5
Hammond	2,710	7.8	2,840	7.8
Hobart	930	7.0	570	4.6
Merrillville	930	5.9	580	3.8
Schererville	640	4.5	330	2.5

Source: Indiana Department of Workforce Development

did in 2000, while unemployment in some other cities within the county has increased (see **Table 1**).

It should be noted that the claims counts for cities and counties, while a significant factor, constitute only one of several model inputs used in arriving at unemployment estimates. Some cities will see shifts in their unemployment rates with the 2005 estimates compared to the 2000–2004 benchmarked estimates, which employed the old methodology, and may experience more month-to-month volatility in their unemployment estimates. For example, some cities may see higher unemployment estimates in January than the county as a whole, since retail establishments tend to be concentrated in urban areas, and post-holiday layoffs may be more frequent among city residents based on proximity to those workplaces. In general, the new methodology will provide more accurate, current estimates for cities' labor force components utilizing current UI claims activity, rather than a static snapshot of unemployment ratios from half a decade ago.

—Vicki Seegert, Manager, Advanced Economic and Market Analysis Group, Indiana Department of Workforce Development

Inside the Data Center

The Economic Census

The 2002 Economic Census began collecting data on the nation's businesses in late 2002, and it is in the process of being released by the Census Bureau. Currently, state level data is being released (see **Table 1**) and is available through the American FactFinder website (<http://factfinder.census.gov>).

To help users better understand and gain access to the 2002 Economic Census and how it relates to past economic censuses, the Census Bureau is offering two hands-on seminars to be held in Indianapolis at the Indiana State Library on September 23rd at 9:00 a.m. and 1:30 p.m. Both seminars are free to the public and each will last three hours. The required registration can be done online at www.census.gov/econ/census02/guide/ec02conf.htm.

Racial and Ethnic Composition Since 1790

Since the first census in 1790, when U.S. marshals counted 3.9

million residents, the decennial census has collected data on the nation's population, including data on racial composition. For the first time, the U.S. Census Bureau has released a historical summary by city, titled *Historical Census Statistics on Population Totals by Race, 1790 to 1990, and by Hispanic Origin, 1970 to 1990, for Large Cities and Other Urban Places in the United States*. It is available online at www.census.gov/population/www/techpap.html.

This working paper illustrates how the composition by race and Hispanic origin has changed over the years in 306 cities. Data are provided for 224 places that have had a census population of 100,000 or more at some point from 1790 to 1990, as well as another 82 places that historically were among the largest in their state. As shown in **Figure 1**, Indiana cities and towns included in the working paper are Evansville, Fort Wayne, Gary, Hammond, Indianapolis, New Albany and South Bend.

The racial categories used in the report are those used in the 1990 census. Data from Census 2000 are not included because they are not directly comparable with race data from previous censuses.

Handbook for State and Local Officials

The Data Center has received a few phone calls from concerned citizens

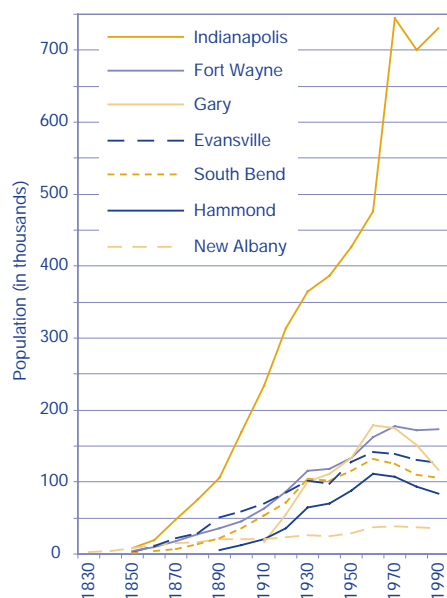
about the legitimacy of a new survey they have received in the mail. A local police department also called after an individual in the community contacted them about someone coming to their door with a laptop computer claiming to be from the Census Bureau. The fact is, starting in January of 2005, the U.S. Census Bureau started mailing the American Community Survey to 300,000 addresses every month in every county of the United States, including every county in Indiana. The Census Bureau has published an informative and helpful document entitled *American Community Survey—A Handbook for State and Local Officials*. This document, along with a sample of the survey questionnaire and many other publications, can be found at www.census.gov/acs.

—Frank Wilmot, State Data Center Coordinator, Indiana State Library

TABLE 1: RELEASE DATES FOR INDIANA SECTOR DATA

May	Mining
June	Information
	Educational Services
July	Manufacturing
	Wholesale Trade
	Retail Trade
	Real Estate and Rental and Leasing
	Professional, Scientific and Technical Services
	Administrative, Support and Waste Management
	Health Care and Social Assistance
	Arts, Entertainment and Recreation
	Accommodation and Food Services
	Other Services
Sept	Utilities
	Construction
	Transportation and Warehousing
	Finance and Insurance

FIGURE 1: TOTAL POPULATION, 1830–1990



Source: IBRC, using U.S. Census Bureau data

Getting Indiana Off the Ground

Indiana has a chance to be at the forefront of a major change in air transportation. Cities and towns of all sizes will have more options to use the airways and companies will have larger market areas; many new and existing firms will have opportunities to participate in a growing market. This is the potential offered by the Small Aircraft Transportation System (SATS).

The Vision

A little more than 100 years ago, a revolutionary event in history occurred with little media attention or public fanfare. Two Ohio bicycle makers, one of whom was born in Indiana, first achieved power flight.

Recently at Danville Virginia, with modest media fanfare, SATS was presented to the public. This presentation exhibited years of innovative aviation research supported jointly by the Federal Aviation Administration (FAA) and the National Aeronautics and Space Administration (NASA).

One goal of SATS is to provide the nation with an economic development tool for communities of all sizes, enabled by local air accessibility, bypassing hub-and-spoke air transportation constraints and delays. Another goal is to relieve the over-burdened air-traffic control network.

SATS is a revolutionary departure from previous economic transportation models. Historically, transportation and economic development has been along paths or lines. Community prosperity required being on a line (no matter how circuitous): a river, seaport, path or road. Next came canals and railroads followed by paved highways and then interstate highways. Airlines put cracks in this model with point-to-point transportation. But the industry was

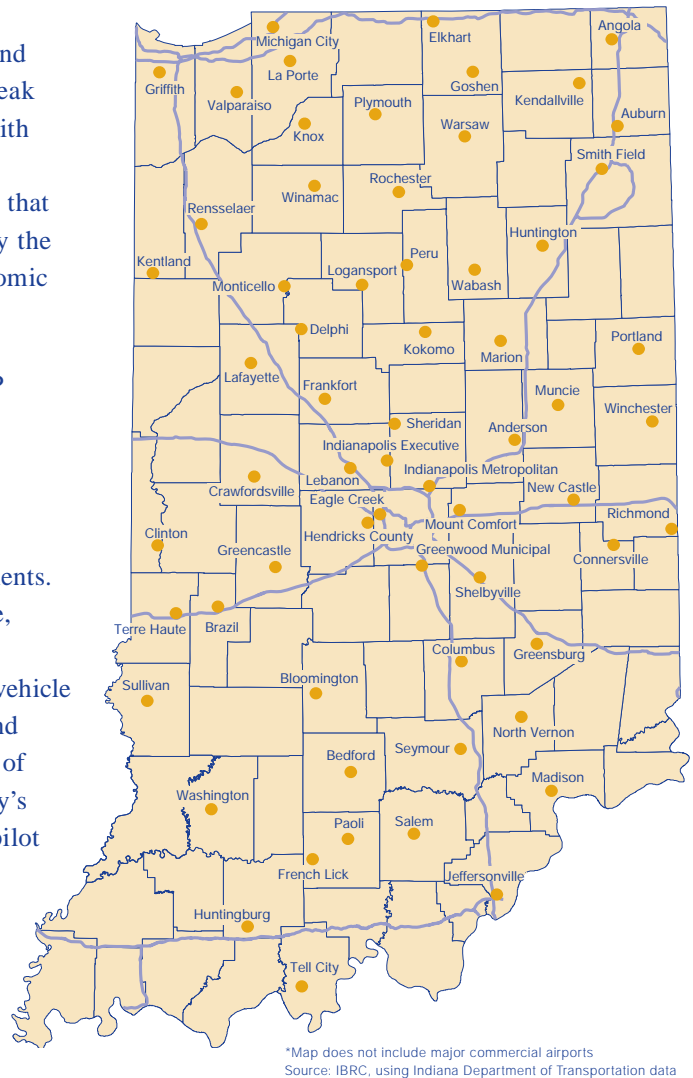
dominated by economies of scale that left out smaller communities and airports. SATS will break the old linear model with a new, highly flexible transportation network that makes each community the center of its own economic radius.

What is SATS?

The Small Aircraft Transportation System is just that—a system with technological and organizational components. On the technology side, SATS is a dramatic upgrade—both in the vehicle and on the ground—and would eliminate much of the complexity in today's aviation. Instead of a pilot facing an intimidating array of dials, all necessary information is available on a single screen. On-board computers monitor systems and relate information as needed to the screen so the pilot can concentrate on essential functions. Via an airborne Internet system, planes are able to communicate with each other, sequencing landings and preventing mid-air collisions. In most cases, SATS eliminates the need for two pilots in the cockpit.

On the ground, a Geographic Positioning System (GPS) with computer communications to air-borne traffic provides information that allows landings at much lower visibility levels than are possible today. There is little, if any, need for SATS-equipped aircraft

FIGURE 1: AIRPORTS WITH RUNWAYS LONG ENOUGH FOR SATS*



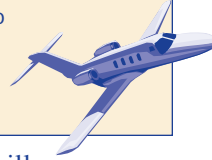
to use the already over-burdened air traffic control system.

There are more than 60 airports in Indiana with runways long enough for SATS aircraft (see **Figure 1**). They require, however, installation of a GPS-based communication system (estimated to cost as little as \$50,000) for use by SATS-equipped airplanes.

As NASA and the FAA refine the SATS technology, the aviation industry is undergoing a major transformation. A new generation of low-cost jets is being built using the latest advanced manufacturing techniques. Thus, new air-taxi or on-demand services will be

Indiana SATS Consortium (INSATS)

INSATS fosters economic growth and the development of the aeronautics industry. It aspires to have Indiana lead the nation in the operational deployment of the Small Aircraft Transportation System (SATS) technologies and to help individual communities unleash untapped economic growth by developing their small airports into prosperous on-ramps to the national air transportation system. For more details about activities and conferences, see www.insats.org.



available at airports that currently have enormous excess capacity. As aircraft ownership costs decrease dramatically, there will also be a rise in the availability of air-taxi services using sophisticated scheduling programs to improve service and drive costs even lower. These new SATS-equipped aircraft will be in the air in the coming year.

Economic Implications

SATS will create jobs for those who manufacture the planes and complementary equipment. Indiana needs to explore this opportunity as a replacement for declining employment in the automotive sector.

SATS will create jobs at airports to service airplanes arriving and departing, as well as jobs for those who fly the planes. It will lower the costs of existing travel, increasing the earnings of firms. It will also create jobs because firms will be able to generate more business by traveling more often.

If you live in Logansport, Richmond, Frankfort, Connersville or any other Indiana city with a small airport, SATS gives you new choices. But, you do not necessarily have to live in a small town. You could be living on the eastside of Indianapolis, near the Mount Comfort Airport, or in Lake County, not far from the Gary or Griffith airports. SATS opens up new opportunities to avoid the costs and discomforts of major airports.

Some existing travel will be diverted from autos to air-taxis. Instead of driving from Kokomo to Tell City, a traveler could fly. Instead of a five-hour drive in each direction, the flight would be under an hour each way. Eight hours of travel saved, to say nothing of the fatigue.

SATS will also substitute for some combined auto-air travel. Today a traveler from Muncie going to Anniston (AL) drives to the Indianapolis airport (about an hour and a half), flies to a hub city (Chicago, Memphis, Atlanta or Detroit), transfers to a flight to Birmingham (best elapsed time: three hours and 20 minutes) and then drives to Anniston (about an hour). Total time for the trip: close to six hours excluding parking, security and the usual airport hassle. But a direct flight from Muncie to Anniston would be less than two hours. Again, the total time savings of SATS would be eight hours for the round-trip.

Hence, SATS will get some travelers to change their mode of transport. But it will also *induce* those who are currently not travelers to make trips they are not now taking. These *induced* trips became the focus of a study by the Indiana SATS Consortium.

Induced Business Activity Model

This model is built on the idea that firms will expand their markets if less-time-consuming modes of

transportation are available. It ignores in-bound business activity that can benefit a community and non-business flights. It contains several variables or assumptions that can be changed at will. Given the absence of existing empirical data for such a revolutionary service, this approach, using very conservative assumptions, offers a minimalist estimate of the economic value of SATS to existing businesses in a county.

1. To estimate induced activity, the number of establishments for each U.S. county was drawn from County Business Patterns produced by the U.S. Census Bureau. The data were reduced to five sectors: manufacturing, information, finance and insurance, professional and technical services, and a residual sector. For each sector, a minimum number of flights per year per establishment was assumed. For example, manufacturing firms were assumed to take one flight per year per establishment. Other sectors were assumed to take fewer flights per establishment. This produced the number of flights for each sector and each county.
2. Each flight taken was assumed to have a fare of \$1,800 (based on calculations by Virginia Tech) and to have two executives onboard. The value of executive time was assumed to be 150 percent of the average earnings per worker in that sector in that county as calculated from data generated by the U.S. Bureau of Economic Analysis (BEA). This time cost was added to the fare to give a total cost for the trip.
3. The value of the trip to the firm was assumed to be equal to the cost of the trip times the ratio of the value of output to employee compensation

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for each sector. Those data are not available at the county level, so state level gross state product estimates from the BEA were used. The thought here is that a firm would not undertake a trip without a return equal to the value it would obtain from a like investment in employee compensation.

4. A business trip may be expected to generate additional orders that can be realized without additional trips. Relationships established by the initial trip can be strengthened by telephone and e-mail so that repeat orders may be created. A repeat business coefficient was applied for each sector.
5. From these basic sources and assumptions, the model generates the increases of output, earnings and employment in each county within the 48 continental states. This is how it worked out for Adams County in Indiana (dollars are expressed in 2002 values with no adjustment for inflation):

- Value of added output in the community = \$3.2 million
- Amount of added earnings by workers and business proprietors in the community = \$2.0 million
- Increased number of jobs in the community = 72

Full results for all counties are available by e-mailing info@insats.org. No multipliers for indirect or income-induced values are applied. These estimates are for a single year. Further increases would be built on them, but not without limit. The magnitude of the results increase as the number of establishments in a community rises (particularly manufacturing firms) and as the existing average wage rises.

What would a community spend as incentives today to get 72 jobs tomorrow? If SATS costs \$50,000, it would be the bargain of the century.

The ultimate economic development issue, it appears to us, is to get the planes flying, which does involve some minimal investment at airports, and to get business passengers in the seats (a marketing effort by air-taxi operators). The normal functioning of markets will do the rest.

—Morton Marcus, Director Emeritus, Indiana Business Research Center, Kelley School of Business, Indiana University; and Ted Jockel, Independent Economic Consultant

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