

Indiana University

Kokomo

Impact Study 2008



Produced by the Indiana Business Research Center at Indiana University's Kelley School of Business

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Executive Summary

Indiana University Kokomo has played a fundamental role in its region since it was established in 1945. IU Kokomo provides north-central Indiana residents with affordable and convenient access to a range of continuing education, certificate and degree offerings at a premier university. As a result, IU Kokomo strengthens the economic competitiveness of the area and increases the earning power of its residents. IU Kokomo's impact on its region extends beyond its academic mission. The university's budget, the civic engagement of students and staff, and the campus' cultural contributions also bestow many economic benefits to the region.

The present study was undertaken to measure how IU Kokomo improves the lives of Hoosiers in its campus region. This report presents policymakers, university officials and Indiana taxpayers with comprehensive yet conservative estimates of the university's impact. IU Kokomo receives a significant commitment of state resources, and it is useful for any public institution, including universities, to show the rewards of such commitment.

One way to present how Indiana benefits from IU Kokomo is to consider results related to the core mission of the university and to consider results that are collateral to the university achieving its core mission. The core mission is education and research. Collateral benefits would include the economic benefits of the university spending associated with its core mission or the economic benefits of, for example, the service-learning that mobilizes students to work for free in the community.

A variety of methods were used to measure the core and collateral benefits of IU Kokomo. The core benefits—meaning those benefits that relate to the university's core mission of education and research—are derived from university records or government data sources. These data highlight characteristics of the student body, the number and type of degrees conferred and the settlement patterns of recent graduates. Core benefits data help to answer many key questions including: Do alumni apply their skills in the state or find work elsewhere? Does IU Kokomo curriculum support Indiana's economic development priorities in the life sciences?

This analysis of core benefits focuses almost exclusively on tangible metrics within the state. However, many benefits associated with the university's educational and research mission are difficult to quantify and are much broader in reach. Moreover, some benefits that flow from IU Kokomo's core mission result in tangible economic benefits to the individuals who attend the university, namely, the expected increase in lifetime earnings resulting from higher educational attainment.

Following the presentation of the core benefits, attention turns to the collateral benefits of IU Kokomo. These benefits recognize the effects that university expenditures and the activities of students, staff and visitors have on the local community. For instance, traditional input-output analysis reveals the economic activity related to the university's operating budget and student spending. The monetary value of student service-learning and student volunteering is also added into the total of collateral benefits. Additionally, the value of faculty and staff civic engagement is also measured.

The following bullet points summarize the key findings of these analyses.

Core Mission Benefits

- The first section of this report, **Characteristics of IU Kokomo Students**, presents profiles of the student population and its recent graduates. IU Kokomo's fall 2007 enrollment totaled 3,000 students—99 percent of whom were Indiana residents. Of the university's 1,500 degree recipients between 1998 and 2002, 87 percent were residing in Indiana as of 2008. The two leading counties of residence for this cohort are Indiana's Howard and Cass counties.
- The **Contribution to Human Capital** section examines IU Kokomo's degree output and the economic value of these degrees to recipients. IU Kokomo conferred 2,000 associate's, baccalaureate and master's degrees between 2002 and 2007 to students originally from its campus region (see Figure 1), accounting for 11 percent of all degrees conferred by Indiana public universities to this cohort. The most common fields of study at the baccalaureate level were arts and humanities and education while business administration was the most frequent master's degree conferred. Over this five-year period, the university also awarded 700 degrees related to life sciences to residents in its campus region.
- IU Kokomo graduates earning baccalaureate degrees or higher can expect far greater lifetime earnings than people with a two-year associate's degree. The typical male IU Kokomo graduate can expect to earn \$1.8 million over his lifetime and the typical female graduate can anticipate \$1.3 million in lifetime earnings. These figures are 39 percent and 30 percent greater, respectively, than the expected lifetime earnings of male and female associate's degree recipients.

Collateral Benefits

- This report measures the economic benefits of IU Kokomo's **Civic Contribution**. Through service-learning programs and volunteerism, students as well as staff and faculty “give back” to their community and to the campus region. Table 1 presents the imputed dollar value of their contributions.
- In addition, this report notes that members of the IU Kokomo community also made \$220,500 in charitable contributions to organizations within their campus region.
- IU Kokomo also enriches its region through community engagement programs, facilities and cultural offerings. Whether it's the Havens Auditorium, the art gallery or the campus library, IU Kokomo gives the area residents something to be proud of.
- Finally, the **Economic Footprint** section reports the employment and economic significance of spending by the university, students and visitors. The estimates in Table 2 report the effects of direct expenditures (e.g., university purchases and compensation of faculty and staff) as well as the “ripple effects” of these expenditures within the community.

In addition to IU Kokomo's employment of 227 faculty and staff, university spending accounts for an additional 122 jobs in the region.

Table 1: Estimated Benefits of Student and Staff Civic Contributions, IU Kokomo, 2006-2007

Civic Contribution	Estimate of Economic Benefit
Service-Learning	\$27,200
Student, Faculty and Staff Volunteerism	\$96,100
Total	\$123,300

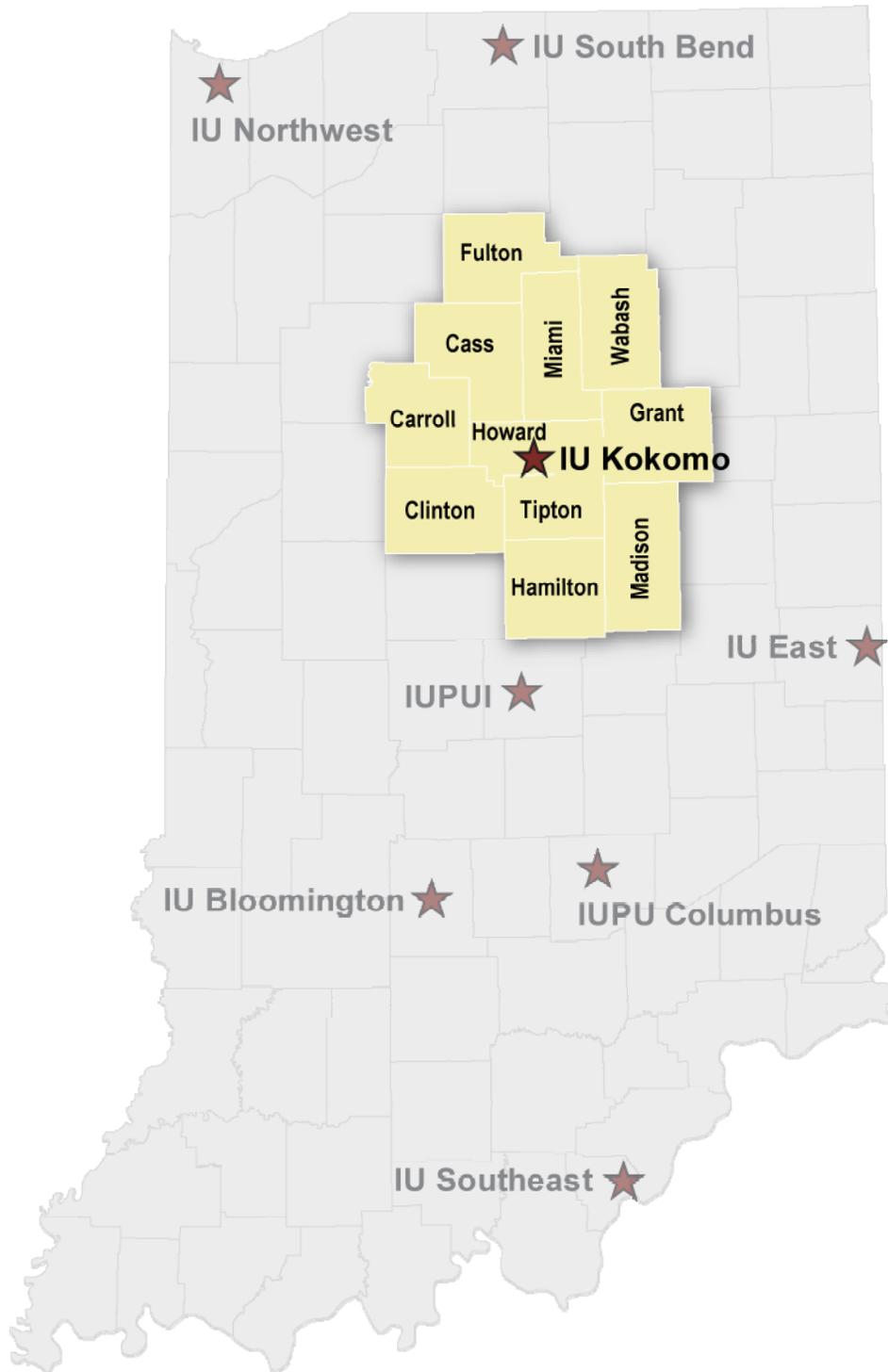
Source: Indiana Business Research Center (IBRC)

Table 2: Estimated Employment and Economic Footprint, IU Kokomo, 2006-2007

Type of Spending	Total Employment Effects (number of jobs)	Total Economic Output Effects (in millions)
Faculty and Staff Compensation	90	\$16.1
University Purchases and Construction Expenditures	32	\$6.3
Visitor Expenditures	2	\$0.1
Total	124	\$22.6

Source: IBRC, using IMPLAN model results

Figure 1: IU Kokomo Campus Region



Source: Indiana Business Research Center

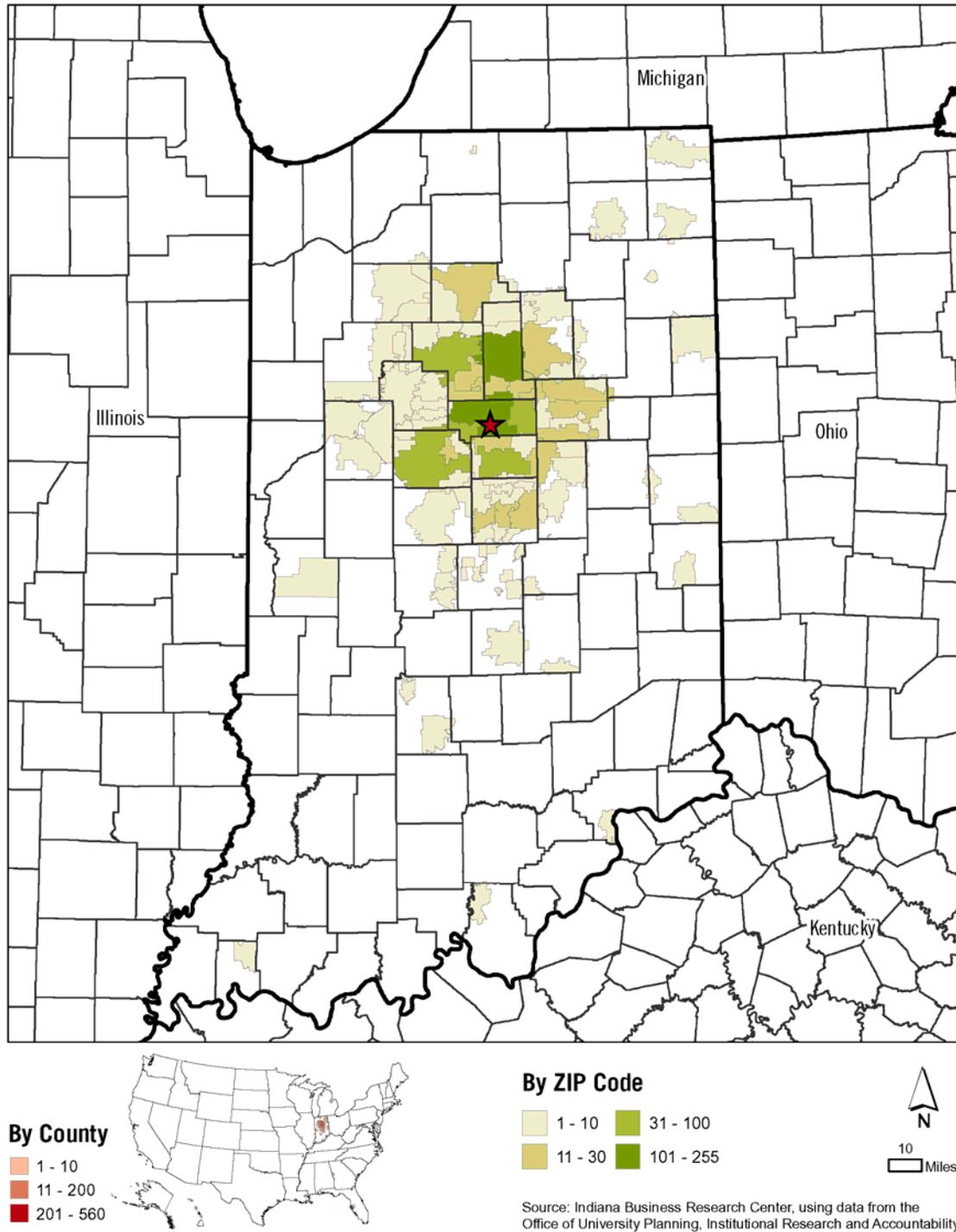
Characteristics of IU Kokomo Students

In the fall of 2007, IU Kokomo had an enrollment of 3,025 students. This campus is unique in that it is IU's only regional campus where part-time enrollment is greater than full-time enrollment.

Student Origin

Overall, 99 percent of IU Kokomo students are Indiana residents. Figure 2 shows the number of full-time students by ZIP code for Indiana and the surrounding areas.

Figure 2: Residence of Origin for Full-Time Students of IU Kokomo, Fall 2007

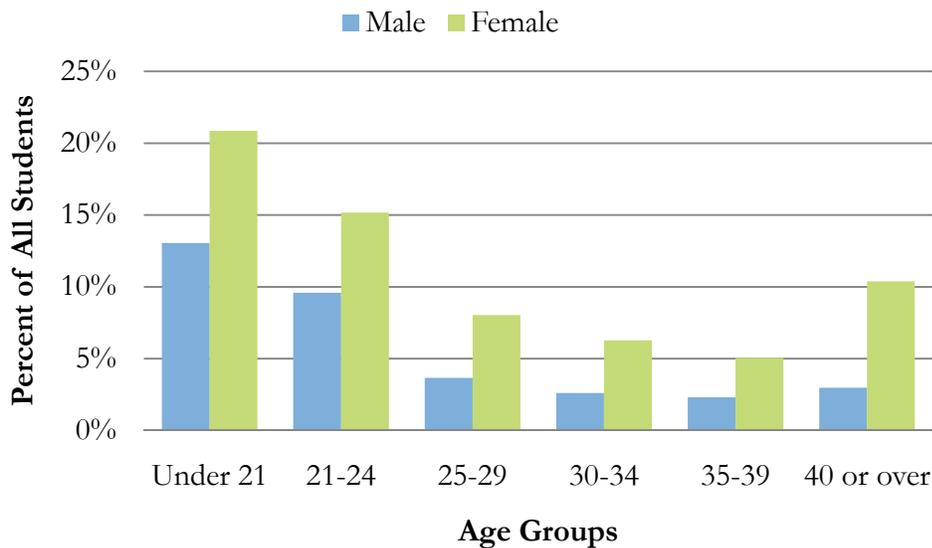


Student Characteristics

Age and Gender

Thirty-four percent of IU Kokomo students are under the age of 21. As shown in Figure 3, women outnumber men in every age group, comprising 66 percent of the student body overall. That gap is smallest in the 21-24 age group, where women account for 61 percent of the category; the gap is largest in the 40-or-over age group, where women account for 78 percent of the total.

Figure 3: IU Kokomo Students by Age and Gender, Fall 2007

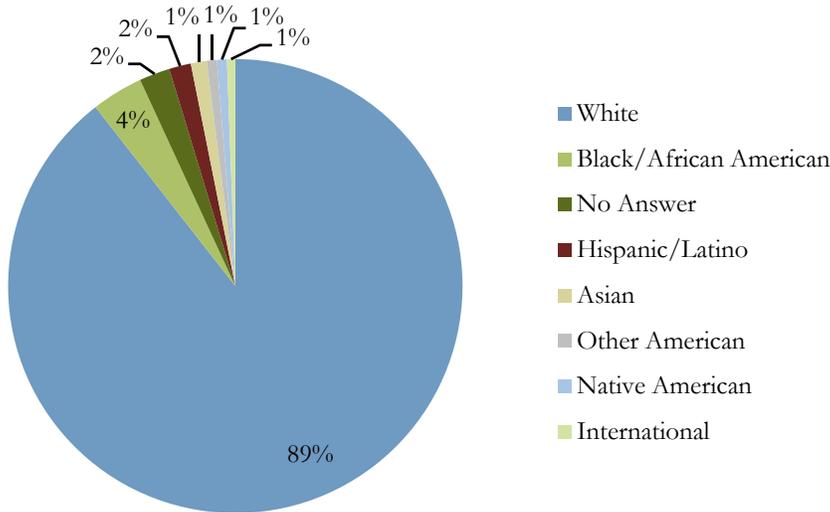


Source: IBRC, using data from the Office of University Planning, Institutional Research and Accountability

Ethnicity

Eighty-nine percent of the student body categorize themselves as white (see Figure 4). Under-represented minorities (blacks, Hispanics and Native Americans) account for 6 percent of all students. Blacks comprise 3.7 percent of the student body, followed by Hispanics at 1.6 percent and Native Americans at 0.7 percent.

Figure 4: Ethnic Distribution of IU Kokomo Students, Fall 2007



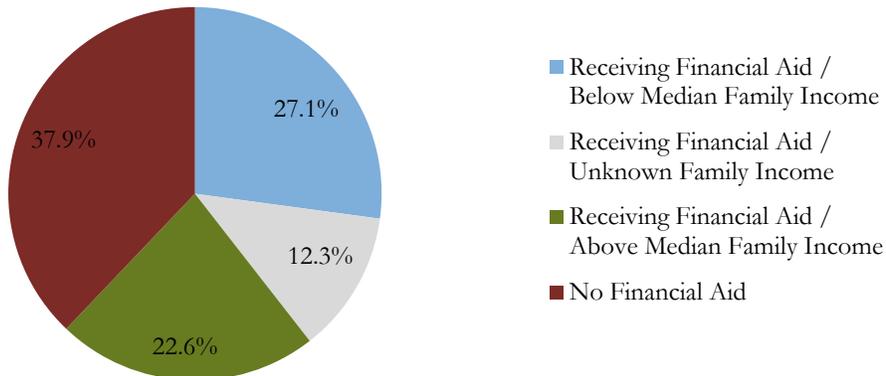
Note: Data on ethnicity were collected only for students applying from within the United States. The international category includes all those who applied from elsewhere in the world, because the concept of ethnic identification varies from country to country. The Native American grouping includes both the American Indian/Alaska Native and Native Hawaiian/Other Pacific Islander categories.

Source: IBRC, using data from the Office of University Planning, Institutional Research and Accountability

Access and Affordability

Figure 5 shows that over 60 percent of full-time IU Kokomo students receive financial aid. Additionally, about 27 percent of full-time students both receive financial aid and are from households with family incomes lower than the Indiana median of \$47,074.

Figure 5: Financial Aid and Family Income Status of Full-Time IU Kokomo Students, 2006-2007



Note: Where family income data for financial aid recipients is “unknown,” income data may have been suppressed due to confidentiality requirements or the aid recipient may not be an Indiana resident.

Source: IBRC, using data from the Indiana Commission for Higher Education

Settlement of Alumni

Where alumni settle after graduation plays a key role in analyzing the ultimate significance of a university campus. In contrast to those who leave, alumni who remain make ongoing contributions (e.g., increased productivity, income and cultural contributions) to their geographic region well after they complete their degree. Table 3 shows that 87 percent of recent IU Kokomo graduates—those who received their degrees between 1998 and 2002—resided in the state as of 2008. The next most popular states were Michigan and Florida.

Table 3: Top 10 States for IU Kokomo Graduates, Degrees Conferred 1998-2002

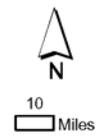
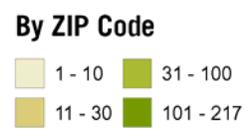
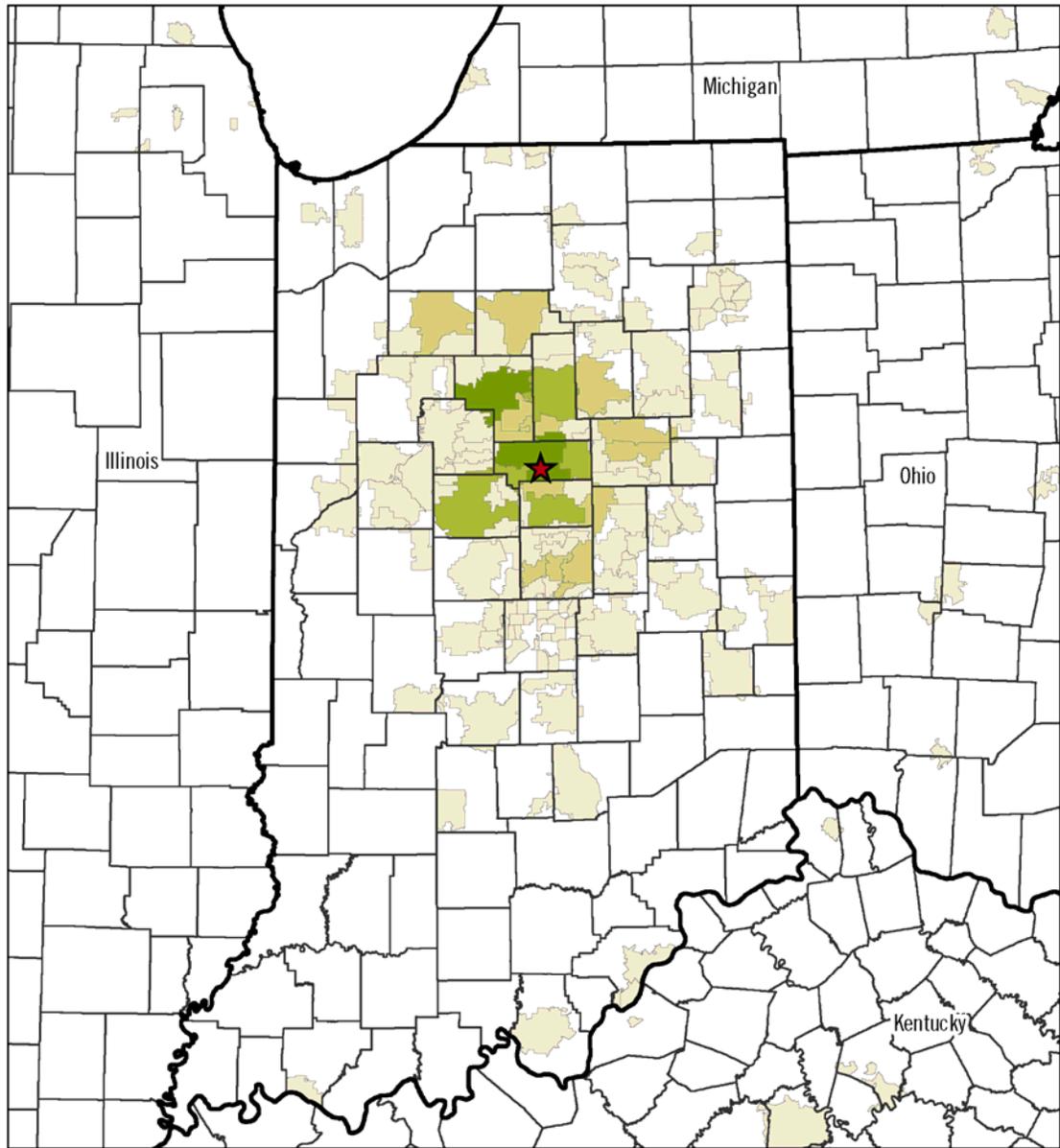
Residence	Percent
Indiana	87.2
Michigan	1.5
Florida	1.1
Ohio	0.9
Illinois	0.8
Kentucky	0.6
Texas	0.6
Missouri	0.6
Tennessee	0.5
Arizona	0.4
Top Ten	94.2

Note: The international/unknown category accounts for 1.7 percent of graduates.

Source: IBRC, using data from the IU Alumni Association as of February 2008

Figure 6 shows the settlement pattern for recent graduates by ZIP code for Indiana and the surrounding states. IU Kokomo graduates who earned their degrees between 1998 and 2002 have settled in 45 Indiana counties. The most common counties of residence of these recent graduates in 2008 are within the campus region, namely Howard (484), Cass (157) and Miami (122) counties. Overall, 76 percent of IU Kokomo's 1,512 degree recipients between 1998 and 2002 lived in the campus region in 2008.

Figure 6: Settlement Pattern of IU Kokomo Graduates, Degrees Conferred 1998-2002



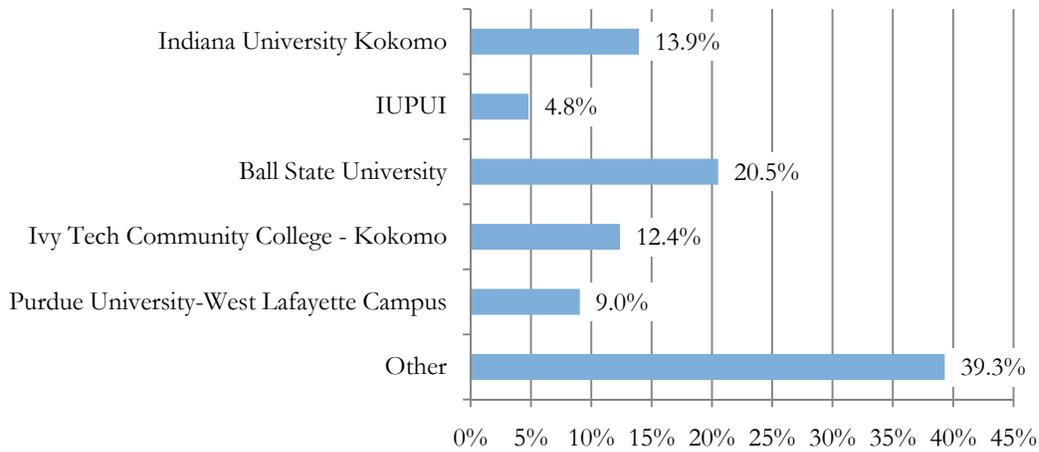
Source: Indiana Business Research Center, using data from the IU Alumni Association, February 2008

Contribution to Human Capital

Degrees Conferred

Associate's degree graduates originally from the IU Kokomo campus region¹ chose a variety of institutions to complete their degrees and IU Kokomo ranked second among them. Figure 7 shows that only Ball State University was more popular for these degree recipients, and IU Kokomo was more popular for associate's degree completers than the local Ivy Tech Community College campus.

Figure 7: Associate's Degrees Conferred by Indiana Public Universities for Graduates Originally from the IU Kokomo Campus Region, 2002-2007

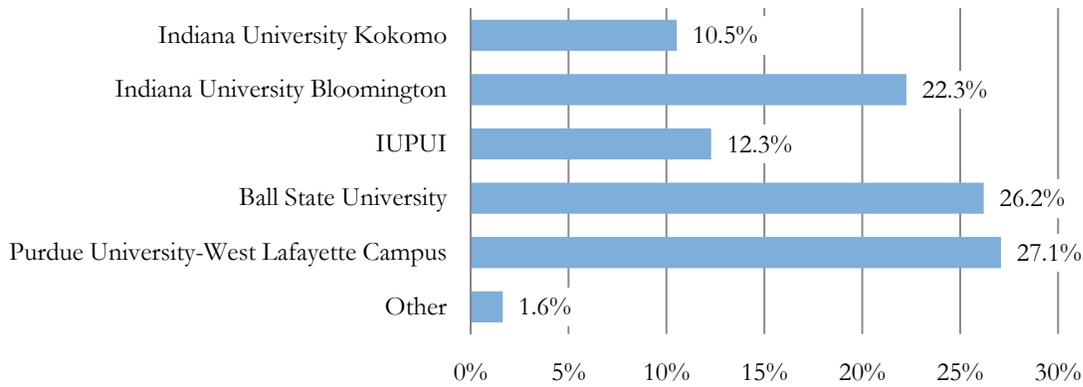


Source: IBRC, using data from the Indiana Commission for Higher Education

College students in the campus region are somewhat less likely to choose IU Kokomo to pursue a baccalaureate or master's degree. Three-quarters of this cohort attended Purdue, Ball State, or IU Bloomington to pursue a baccalaureate compared to 10.5 percent at IU Kokomo (see Figure 8). Figure 9 indicates that roughly 6 percent of the region's students that pursued a master's degree completed their studies at IU Kokomo. Ball State and IUPUI were the most common destinations.

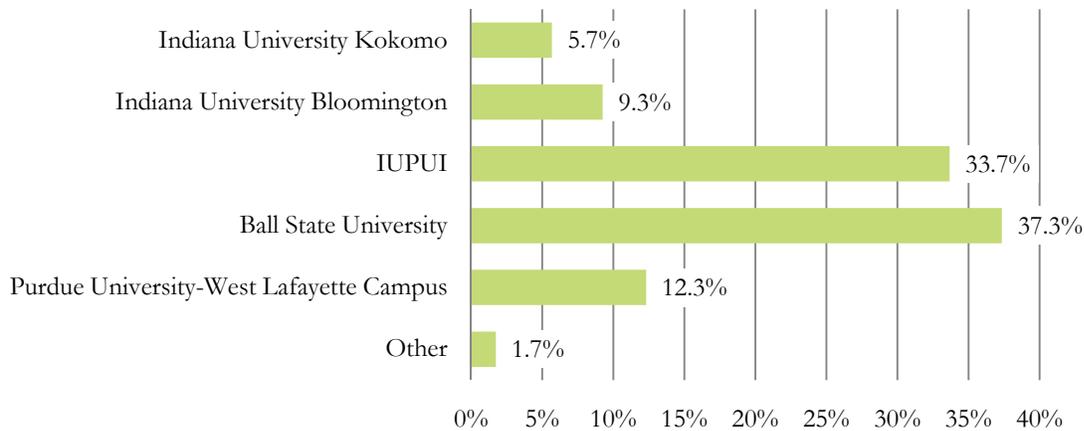
¹ This region includes the following eleven counties: Carroll, Cass, Clinton, Fulton, Grant, Hamilton, Howard, Madison, Miami, Tipton and Wabash.

Figure 8: Baccalaureate Degrees Conferred by Indiana Public Universities for Graduates Originally from the IU Kokomo Campus Region, 2002-2007



Source: IBRC, using data from the Indiana Commission for Higher Education

Figure 9: Master's Degrees Conferred by Indiana Public Universities for Graduates Originally from the IU Kokomo Campus Region, 2002-2007



Source: IBRC, using data from the Indiana Commission for Higher Education

Expected Lifetime Earnings

Indiana University provides an education that not only enriches its graduates intellectually, but also financially. By granting baccalaureate, master's, professional and doctoral degrees in diverse fields, IU allows Indiana residents the opportunity to greatly enhance their career options and wage-earning potential beyond what they may have earned with merely an associate's degree or less. Here we consider the increased lifetime earnings for female and male graduates completing the most popular degrees on the IU Kokomo campus. Lifetime earnings are estimated synthetically by summing the average wages for different age cohorts of full-time, year-round workers for each degree level and field.²

² For more detail, please read the methodology section of the main report.

Table 4 shows that a recent female IU Kokomo baccalaureate graduate is expected to earn \$1.2 million dollars from employment over the course of her lifetime. While the most popular degree field—education—is associated with lifetime earnings of under \$1 million, most graduates earn substantially more, even without completing an additional graduate degree. In particular, graduates of popular degrees in the arts and humanities, as well as nursing, business and allied health fields, are all projected to make lifetime earnings of over \$1.3 million.

Table 4: Estimated Lifetime Earnings for Female Baccalaureate Degree Graduates, IU Kokomo, 2002-2007

Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Education (except Administrative and Math & Science Education)	39	\$964
Arts and Humanities (except Music, Visual & Performing Arts)	36	1,303
Nursing	26	1,368
Business Administration and Management	24	1,347
Allied Health Fields (except Nursing)	21	1,370
Social Sciences (except Economics)	16	1,182
Criminal Justice/Protective Services	8	1,323
Communications	5	1,329
Computer and Information Science (not programming)	3	1,534
Mathematics and Physical Sciences	2	1,480
Other Fields	1	1,250
Overall	183	\$1,249

Note: Numbers may not sum due to rounding. Lifetime earnings are synthetic estimates based on average wages for graduates by age, degree level and field. Figures have been adjusted to 2006 dollars and future earnings have been discounted at 3 percent.

Source: IBRC, using data from the Indiana Commission for Higher Education and the National Survey of College Graduates

Female graduates who earn advanced degrees at IU Kokomo typically earn an estimated \$1.6 million from employment over their lifetimes (see Table 5). In particular, graduates in business administration and management are projected to earn over \$1.8 million in their lifetimes.

Table 5: Estimated Lifetime Earnings for Female Advanced Degree Graduates, IU Kokomo, 2002-2007

Degree Type	Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Master's	Business Administration and Management	9	\$1,848
Master's	Education (except Administrative and Math & Science Education)	3	1,242
Master's	Arts and Humanities (except Music, Visual & Performing Arts)	1	1,201
Overall		13	\$1,643

Note: Numbers may not sum due to rounding. Lifetime earnings are synthetic estimates based on average wages for graduates by age, degree level and field. Figures have been adjusted to 2006 dollars and future earnings have been discounted at 3 percent.

Source: IBRC, using data from the Indiana Commission for Higher Education and the National Survey of College Graduates

Men who recently completed baccalaureate degrees are expected to earn just under \$1.7 million dollars in lifetime earnings from employment (see Table 6). The most popular degree fields—arts and humanities and business administration and management—are associated with lifetime earnings of over \$1.5 million and \$1.9 million, respectively, even if these graduates do not complete an additional advanced graduate degree.

Table 6: Estimated Lifetime Earnings for Male Baccalaureate Degree Graduates, IU Kokomo, 2002-2007

Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Arts and Humanities (except Music, Visual & Performing Arts)	20	\$1,553
Business Administration and Management	15	1,902
Computer and Information Science (not programming)	6	1,965
Social Sciences (except Economics)	5	1,757
Criminal Justice/Protective Services	5	1,435
Education (except Administrative and Math & Science Education)	4	1,250
Allied Health Fields (except Nursing)	2	1,768
Communications	2	1,539
Mathematics and Physical Sciences	1	1,805

Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Biological, Agricultural & Food Sciences	1	1,549
Other Fields	1	1,541
Overall	61	\$1,676

Note: Numbers may not sum due to rounding. Lifetime earnings are synthetic estimates based on average wages for graduates by age, degree level and field. Figures have been adjusted to 2006 dollars and future earnings have been discounted at 3 percent.

Source: IBRC, using data from the Indiana Commission for Higher Education and the National Survey of College Graduates

Male graduates who earn advanced degrees at IU Kokomo typically earn an estimated \$2.3 million from employment over their lifetimes (see Table 7). This is because almost all men who earn master's degrees do so in the business administration and management field with high projected earnings of \$2.4 million.

Table 7: Estimated Lifetime Earnings for Male Advanced Degree Graduates, IU Kokomo, 2002-2007

Degree Type	Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Master's	Business Administration and Management	10	\$2,420
Master's	Education (except Administrative and Math & Science Education)	1	1,367
Overall		11	\$2,322

Note: Numbers may not sum due to rounding. Table does not include one graduate with an arts and humanities degree during this five-year period. Lifetime earnings are synthetic estimates based on average wages for graduates by age, degree level and field. Figures have been adjusted to 2006 dollars and future earnings have been discounted at 3 percent.

Source: IBRC, using data from the Indiana Commission for Higher Education and the National Survey of College Graduates

The value of obtaining a four-year college degree or higher is underscored when one compares the difference between the estimated lifetime earnings of IU Kokomo's baccalaureate and advanced degree graduates with the earnings of associate's degree graduates nationwide (see Table 8). Over the life course, IU Kokomo's female graduates are expected to make \$293,000 (or 30 percent) more than associate's degree graduates. Male graduates are expected to make almost half a million dollars (or 39 percent) more than associate's degree graduates.

Table 8: Difference in Lifetime Earnings between IU Kokomo Graduates (Baccalaureate Degree or Higher) and U.S. Associate’s Degree Graduates

Category	Women (\$1000s)	Men (\$1000s)
Average Lifetime Earnings for IU Kokomo Alumni (2002-2007) with Baccalaureate Degrees or Higher	\$1,276	\$1,774
Average Lifetime Earnings for U.S. Associate’s Degree Graduates	\$983	\$1,278
Additional Lifetime Earnings Attributable to Higher Degree	\$293	\$496

Note: Numbers may not sum due to rounding. Lifetime earnings are synthetic estimates based on average wages for graduates by age, degree level and field. Figures have been adjusted to 2006 dollars and future earnings have been discounted at 3 percent.

Source: IBRC, using data from the Indiana Commission for Higher Education, National Survey of College Graduates and the U.S. Census Bureau

Combining the additional earnings of baccalaureate and advanced degree graduates of IU Kokomo (compared to holders of associate’s degrees) leads to an estimated \$93 million increase in lifetime earnings related to degrees conferred annually. Of course, not all of this remains in Indiana, and it can’t properly be considered an economic impact of the campus in the traditional sense.

Nonetheless, the figure does convey a sense of the incremental value placed on the education received by graduates of IU Kokomo.

Adding to Indiana’s Talent Pool

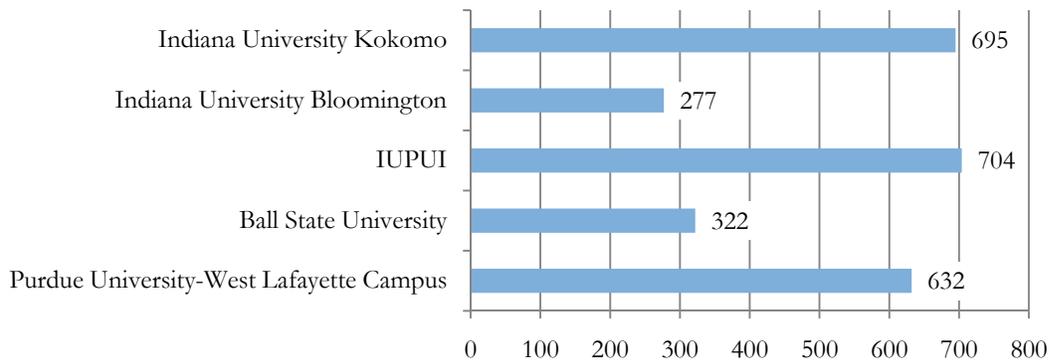
Indiana University plays a vital role to the state’s economic development efforts by training future leaders and practitioners with skills that are closely aligned with major industries. This report focuses on the high-paying life sciences industry—key among Indiana’s industrial initiatives—since the state is among the “nation’s top four life sciences leaders” due to its high number and concentration of life sciences–related jobs.³

Life Sciences

IU Kokomo is almost as popular as IUPUI among life sciences degree graduates who originated from the campus region. Among Indiana four-year public universities attended by these graduates between 2002 and 2007, we see that 695 attended IU Kokomo, only 10 fewer than IUPUI and more than the 632 who attended Purdue University–West Lafayette (see Figure 10).

³ This information comes from the Indiana Economic Development Corporation: www.in.gov/iedc/industry.htm

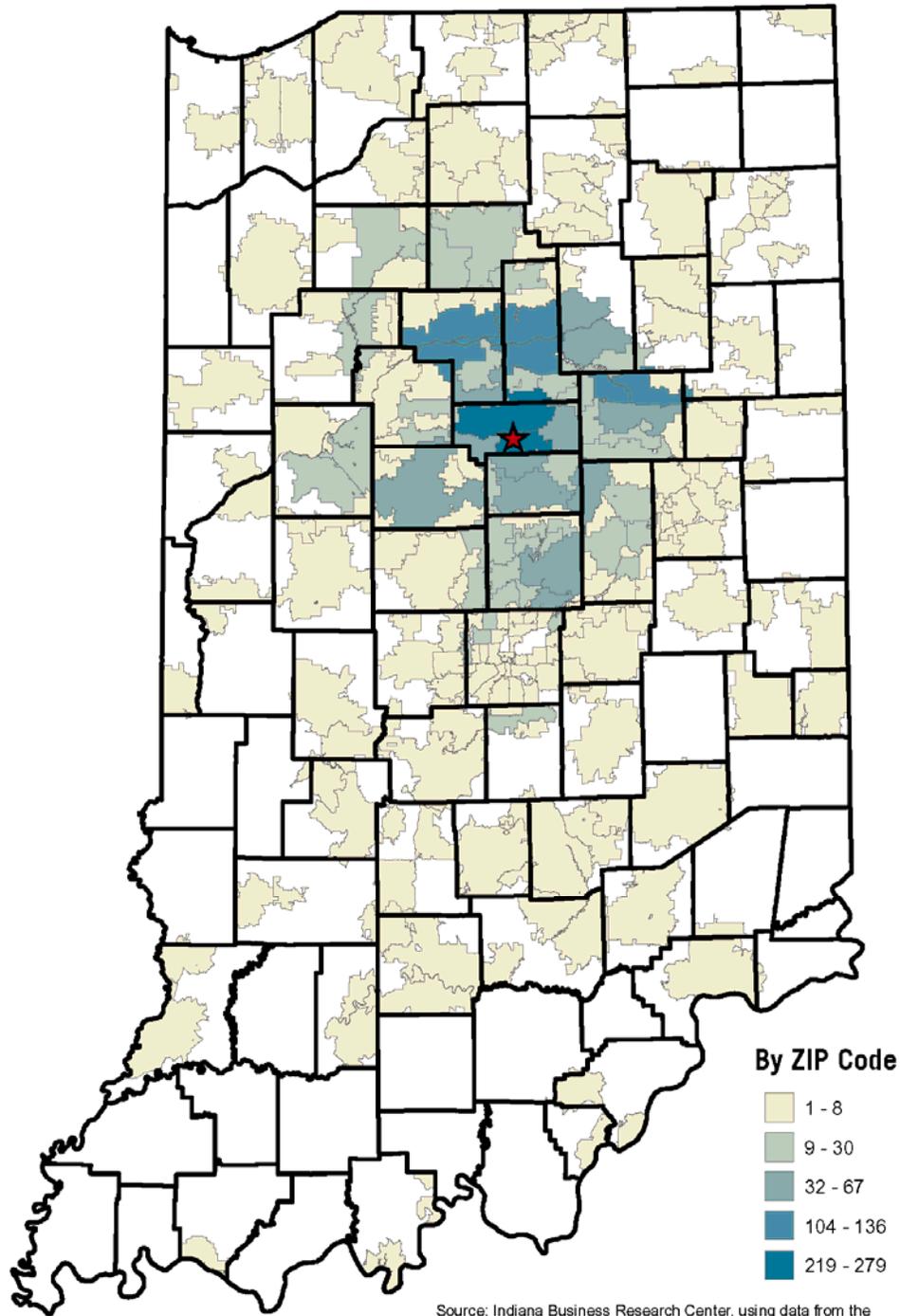
Figure 10: Life Sciences Degrees Conferred by Indiana Public Universities for Graduates Originally from the IU Kokomo Campus Region, 2002-2007



Source: IBRC, using data from the Indiana Commission for Higher Education

Figure 11 illustrates that a large share of IU Kokomo alumni with life sciences degrees continue to reside in north-central Indiana. In terms of Indiana as a whole, 85 percent of these alumni live within the state.

Figure 11: Residence of IU Kokomo Alumni with Life Sciences Degrees, 2008



Civic Contribution

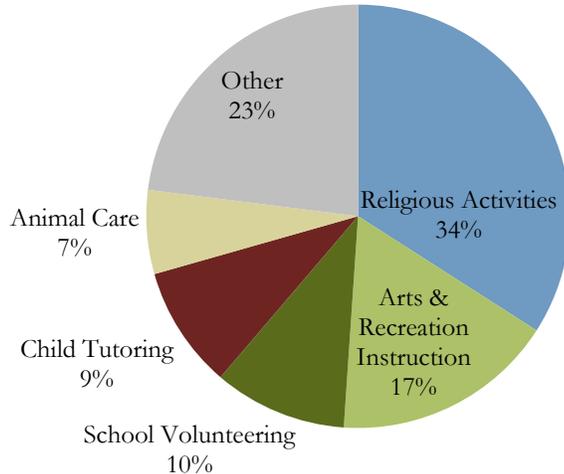
Service-Learning⁴

IU Kokomo instructors are encouraged to incorporate service-learning components in their courses. The “Take Back the Night” event (opposing violence against women) is a noteworthy example of these initiatives. While specific hours are not recorded in each course, 210 students participated in course-related service-learning projects in fall 2006 and another 280 students in spring 2007. Through these programs, students contributed an average of eight hours of service per semester, totaling 3,920 hours during the 2006-2007 academic year. This translates to equivalent employment costs of \$37,318 for an estimated benefit in the region of \$27,242 over the year.⁵

Volunteering

IU Kokomo students volunteered an average of 88 hours over the 2006-2007 academic year according to the IU Student Survey of full-time students.⁶ Figure 12 presents the most popular volunteer activities. While religious activities accounted for more than a third of volunteering, arts and recreation instruction, school volunteering, child tutoring, and animal care were also popular activities.

Figure 12: Volunteer Time Spent by Activity for IU Kokomo Students, 2006-2007



Source: IBRC, using volunteer data from the IU Student Survey 2008

⁴ Information on hours of service was compiled by Indiana University Kokomo, Kathryn Widman (Coordinator of Programming and Applied Learning at Indiana University Kokomo).

⁵ This study assumes an equivalent wage of \$9.52 per volunteer hour, but also accounts for the possibility that not all services provided by volunteers would be funded if the organization, or the organization’s clients, had to pay fair market value. The literature on volunteering suggests using a 0.73 factor of proportionality between market price of service and client value. Please see the methodology section in the full IU Impact Study for more information.

⁶ Full-time students were analyzed and reported because they more likely reflect volunteering that would not have occurred “but for” the presence of the university. In addition, this also implies that the economic benefit figures for volunteering are conservative.

After extrapolating the student survey results to the entire full-time student body, IU Kokomo student service totaled over 125,000 volunteer hours. This service was conducted overwhelmingly within the campus region. This service amounts to a gross economic benefit of \$1.1 million, as measured in terms of equivalent occupational compensation as shown in Table 9. That may overstate the net benefit, however, given that the vast majority of students are from the region and might have conducted these activities whether or not they were IU Kokomo students. More conservatively, accounting for the service of only the 6.4 percent of students that are from outside the region, the net economic benefit would still be over \$54,000.

Table 9: Economic Benefit of Student Volunteering Activities, IU Kokomo, 2006-2007

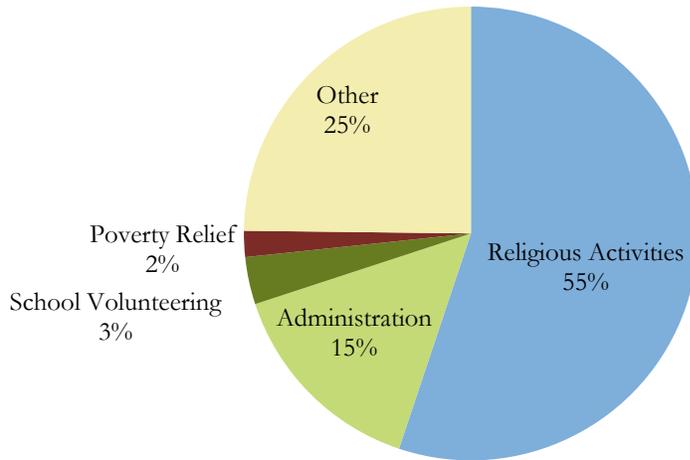
Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Religious Activities	42,720	88.6	\$11.97	\$453,109
Arts & Recreation Instruction	21,337	90.6	9.74	188,106
All Other Activity	20,350	88.5	9.52	171,495
School Volunteering	12,758	91.3	10.43	121,411
Child Tutoring	11,707	95.3	10.43	116,408
Animal Care	8,030	96.8	9.22	71,621
Camp Volunteering	6,560	54.1	9.74	34,577
Poverty Relief	1,926	87.0	9.22	15,439
Total	125,388			\$1,172,165
Percent of Students Not from Campus Region				6.39%
Price-to-Client Value Ratio				73%
Overall Economic Benefit of Student Volunteering				\$54,678

Note: Numbers may not sum due to rounding. Equivalent hourly compensation is based on wages and benefits of similar occupations. The overall economic impact accounts only for students who did not previously reside in the campus region and assumes a 0.73 market price-to-client value ratio. Table reports full-time students. The number of full-time students in the fall of 2007 was 1,424. Please see the methodology section for details.

Source: IBRC, using volunteer data from the IU Student Survey 2008, student origin data from the Indiana University Office of University Planning, Institutional Research and Accountability and wage data from the U.S. Bureau of Labor Statistics

The IU Faculty and Staff Survey conducted in early 2008 revealed that the survey participants volunteered an average of 59 hours over the 2006-2007 academic year. Figure 13 shows that over half of this service by IU Kokomo employees was through religious activities. Faculty and staff also frequently served in administration capacities in local organizations (including board membership).

Figure 13: Volunteer Time Spent by Activity for IU Kokomo Faculty and Staff, 2006-2007



Source: IBRC, using volunteer data from the IU Faculty and Staff Survey 2008

After extrapolating the faculty and staff survey results to all full-time employees, IU Kokomo employee volunteer service totaled over 12,000 hours. Almost all of these hours occurred within the campus region. Table 10 summarizes the hours of volunteer service estimated for IU Kokomo employees. Taking a conservative approach, IBRC analysis assumed that “but for” the presence of the university, the faculty would not live and work in the Kokomo campus region and as a result, would not volunteer around IU Kokomo. While this is likely true of professional staff as well, the university employee data did not allow breaking out professional staff—“but for” the university—and other staff for whom the “but for” argument would not hold. (The survey revealed that a majority of staff were not as economically tied to the university as were the faculty.) As a result, the conservative estimate of net economic benefits counts only full-time faculty and those benefits total over \$41,000 for the IU Kokomo region. The upper-bound of the estimate, on the other hand, includes all full-time employees and totals \$129,181.

Table 10: Economic Benefit of Employee Volunteering Activities, IU Kokomo, 2006-2007

Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Administration	1,860	90.0	\$14.31	\$23,946
Religious Activities	6,912	87.5	11.97	72,374
School Volunteering	423	100.0	10.43	4,411
Poverty Relief	232	100.0	9.22	2,137
All Other Activity	3,111	88.9	9.52	26,314
Total	12,537			\$129,181
Percent of Employees Who Are Faculty				43.93%
Price-to-Client Value Ratio				73%
Overall Economic Benefit of Employee Volunteering				\$41,422

Note: Numbers may not sum due to rounding. Equivalent hourly compensation is based on wages and benefits of similar occupations. The overall economic impact accounts only for faculty and assumes a 0.73 market price-to-client value ratio. Table reports full-time employees. In the fall of 2007, the number of full-time faculty and staff was 214. Please see the methodology section for details.

Source: IBRC, using volunteer data from the Indiana IU Faculty and Staff Survey 2008, student origin data from the Indiana University Office of University Planning, Institutional Research and Accountability and wage data from the U.S. Bureau of Labor Statistics

Charitable Contributions

IU Kokomo also “gives back” to the region through student and employee donations to charities. Table 11 shows that full-time IU Kokomo students donated an average of \$116 per student over the 2006-2007 academic year. Extrapolating the survey average to the entire full-time student body, students at IU Kokomo gave \$165,463. More than two-thirds of these funds were received by organizations within the 11-county campus region.

Table 11: Economic Benefit of Student Charitable Contributions, IU Kokomo, 2006-2007

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	68.9%	\$80
Other Parts of Indiana	19.8%	\$23
Outside of Indiana	11.3%	\$13
Total Contribution per Person		\$116
Total Contribution of All Students		\$165,463
Contribution within Campus Region		\$114,054

Note: Table reports full-time students. In the fall of 2007, the number of full-time students was 1,424. Source: IBRC, using charitable contribution data from the IU Student Survey 2008

Full-time employees have more resources than the average student and can be even more generous. Based on the IU Faculty and Staff Survey, full-time employees contributed an average of \$751 during the 2006-2007 academic year. Multiplying this average by the number of full-time faculty and staff, IU Kokomo employees gave \$160,676. Table 12 shows that the majority of these funds were donated to charities operating in the region.

Table 12: Economic Benefit of Employee Charitable Contributions, IU Kokomo, 2006-2007

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	66.2%	\$497
Other Parts of Indiana	22.9%	\$172
Outside of Indiana	10.9%	\$82
Total Contribution per Person		\$751
Total Contribution of All Employees		\$160,676
Contribution within Campus Region		\$106,416

Note: Table reports full-time employees. In the fall of 2007, the number of full-time faculty and staff was 214. Source: IBRC, using charitable contribution data from the IU Faculty and Staff Survey 2008

Resources for the Community

Members of the public are welcome to use numerous facilities and resources on the IU Kokomo campus.

Arts and Culture

IU Kokomo Art Gallery works in both academic and community settings to promote greater appreciation and engagement with art. In addition, the following resources are available to the community:

- Havens Auditorium
- Kelley Center
- Kresge Auditorium
- Small Theater

Library Services

Besides students, faculty and staff, 726 members of the public used the IU Kokomo Library during the 2006-2007 academic year. Community members borrowed 1,787 books for a benefit valued at \$13,259. IBRC analysts used the estimated value of \$7.42 per loaned book based on the methodology used in the report, *The Economic Impact of Libraries in Indiana*.⁷ In addition, members of the public are free to use the library's audiovisual resources and computer services by requesting a free network ID.

⁷ Indiana Business Research Center. 2007. "The Economic Impact of Libraries in Indiana." Available online at: www.ibrc.indiana.edu/studies/EconomicImpactOfLibraries_2007.pdf

Other Resources

Table 13 catalogs four types of resources available to members of the public.

Table 13: Community Resources Offered by IU Kokomo

Community Resource	Adult/ Continuing Education	K-12 Education Resources	Economic Development/ Business Leadership	Event Hosting/ Shopping Facilities
Bookstore				X
Career Resource Center			X	
Center for Early Childhood Education		X		
Division of Continuing Studies	X			
Education Curriculum Lab		X		
Havens Auditorium				X
Inventrek Technology Park			X	
Kelley Center				X
Kresge Auditorium				X
Little Learners Child Care Center		X		
Observatory	X	X		

Note: This list does not include the arts and cultural resources discussed earlier in the report.

Source: Indiana Business Research Center, with input from campus administrators

The Economic Footprint of the University

Methodology

The Indiana Business Research Center analyzed the significance of IU Kokomo on the university's campus region. The analysis measures the economic effect of IU compensation and purchasing expenditures, together with the spending of students and visitors that the institution attracts. The IBRC used the IMPLAN economic analysis tool, developed by University of Minnesota researchers over 20 years ago, and in use by over 1,500 clients today. It is a standard input-output model that calculates the economic ripple effects created by the purchases of the university, the compensation of its faculty and staff, and the collateral expenditures of students and the visitors attending IU-related events.⁸ Users of the model's results should be aware that the figures are estimates, not a precise accounting of the effects of IU Kokomo on the regional economy.

⁸ For a discussion on the conceptual difference between economic impact and economic footprint, please see the methodology section of the full IU impact report.

Principal Findings

- The total economic footprint of IU Kokomo on the university campus region amounts to \$22.6 million annually.
- This economic activity generates approximately \$627,000 in state and local taxes.
- IU Kokomo faculty and staff spending, together with university direct purchases and construction projects, results in ripple effects of approximately \$3.0 million in additional economic activity and accounts for approximately 30 jobs in the university campus region.

Table 14 presents the relative economic effects of four major spending categories and their ripple effects on the IU Kokomo region. The ratio of the ripple effect to the direct effect depends on several factors, but two important factors are the size of the model region—the larger, the greater the ripple effects—and the degree to which the region is able to supply the goods and services demanded by the consumers and businesses of the region.

Table 14: Estimated Economic Footprint of IU Kokomo, 2006-2007

Economic Output Effects of University	Direct Effects (in millions)	Ripple Effects (in millions)	Total Footprint (in millions)
Faculty and Staff Compensation	\$13.9	\$2.2	\$16.1
University Purchases of Goods and Services	5.2	0.7	5.8
University Construction	0.4	0.1	0.5
Visitor Expenditures Attributed to IU Events	0.1	0.0	0.1
TOTAL Effect on Economic Output	\$19.6	\$3.0	\$22.6

Source: IBRC, using IMPLAN results based on IPEDS financial data reported by universities to the National Center for Education Statistics, Office of Financial Aid, IU Student Survey 2008, Office of Planning, Institutional Research and Accountability

Table 15 presents the employment impact of IU Kokomo. In addition to the 227 persons employed by IU Kokomo,⁹ the spending by university faculty, staff and students, together with university purchasing, account for another 124 jobs in the region. The reader should be aware that the types of jobs, and their associated wages and salaries, do not all have the same ripple effects. While the model estimates that IU Kokomo creates demand for higher-paying jobs like physicians to serve faculty and staff, a majority of jobs are in the lower-paying service sector.

Table 15: Estimated Employment Footprint of IU Kokomo, 2006-2007

Employment Effects of University	Direct Effects	Ripple Effects	Total Footprint
Faculty and Staff Compensation	70	20	90
University Purchases of Goods and Services	20	10	30
University Construction	2	-	2

⁹ Based on IBRC's full-time equivalent calculations using payroll data received from the Office of Planning, Institutional Research and Accountability.

Employment Effects of University	Direct Effects	Ripple Effects	Total Footprint
Visitor Expenditures Attributed to IU Events	2	-	2
TOTAL Effect on Employment	92	30	124

Source: IBRC, using IMPLAN model results

Economic Injections and Leakages

In many ways, measuring the economic impact of a business or institution is an exercise in keeping track of good money (monetary flows into a region), bad money (monetary flows out of a region) and neutral money (transactions that re-circulate money within a region). Another way to view good money is as an injection into a region's economy. Tourism is the classic example. Another way to view bad money is a leakage from a regional economy. Purchasing oil from overseas may be a good example of this concept. The presence of a business or institution that helps to stop leakages, or retain economic activity, is said to have an import substitution effect.

Adopting the counter-factual, or “but for,” approach to economic impact analysis in order to raise the analytical rigor of impact studies presents the analyst with thorny issues: what counts as impact and what doesn't?¹⁰ The main thrust of the “but for” approach is the question: if the institution that is under study disappeared, would the money disappear too? Economic injections like spending from out-of-state students in a regional or state economy—the tourism effect—would clearly qualify as an impact. Stemming the leakages that would result from college students going out of state to pursue their degree—the import substitution effect that keeps neutral money from becoming bad money—would also qualify. A flagship state university like IU Bloomington would arguably qualify as having “impact” for the above two reasons.

Regional campuses are not so clear cut. The argument that regional campuses bring in out-of-state (or out-of-region) students, or stem the flow of students leaving the state (or region) to attend a university elsewhere, is more tenuous. Moreover, the regional campuses do not attract as much out-of-state research funding. State appropriations also make up a much larger share of the operating budget. The state funds wouldn't be lost to the state or region if IU Kokomo did not exist. The state funds would either be returned to Indiana taxpayers or redirected to other regional programs and projects. In short, regional campus expenditures are more akin to the re-circulation of funds than an injection of funds.

Because many institutions cannot claim that they have impact in the strictest sense of the term, that is, either generating injections or plugging leakages, other terms have been proposed to describe their economic role. Some researchers and analysts have proposed the term “contribution” to describe the size of the economic interaction these institutions have in the local, regional or state economy. Whatever the term used to measure the size of an institution's presence, the most conservative and honest approach would explain the conceptual and economic differences between impact, contribution and footprint. For this reason, the IBRC uses the term economic footprint to include all categories of monetary flows—injections, retention and recirculation—rather than economic impact.

¹⁰ John A. Siegfried, Allen R. Sanderson, Peter McHenry. “The economic impact of colleges and universities,” *Economics of Education Review* 26 (2007): 546–558.

In recent years, state universities—in their desire to advance their case for support to state legislatures—have highlighted the fact that universities and students attract visitors and those visitors bring money, good money, to their region. In this way, institutions have augmented their reported economic footprint. While there is nothing analytically wrong with counting the economic injections, if one adds these injections, one must also subtract the leakages to be analytically consistent. Most university impact reports do not subtract leakages.

In an attempt to conduct a balanced and consistent analysis of injections and leakages, the IBRC included questions in the 2008 Student Survey to measure the frequency and spending associated with students' visitors from out of the campus region and IU student travel to destinations outside the region. According to the survey results, IU Kokomo students travel out of the region longer and spend more in the process than those who come to the area to visit IU students in Kokomo. In other words, this is not an advantageous calculation with respect to IU Kokomo's impact.

On the other hand, visitors from out of the region who attend IU cultural events or attend conferences do provide injections to the regional economy. These visitors, and their economic injections, are enumerated in the "visitor expenditures attributed to IU events" category. Because these visitors are not tied to students, their spending is assumed to be net injections. That said, the percentage of those visitors coming from out of the campus region is small.

Following the lead of the economic impact study conducted for the Jacob's School of Music in 2007, the research team assumed that 17 percent of visitors who attend all types of events—cultural, sporting or otherwise—were from outside the campus region. The 17 percent figure was used for all campus regions for the sake of consistency. (The assumption is probably the most heroic for the Bloomington campus because the state of Indiana is the campus region.) Each out-of-region visitor is assumed to spend on average of \$44 per visitor day (in 2008 dollars) on hotels, meals and shopping. Event tickets and refreshment sales, as well as payments for conference meals and lodging, are included in the university "auxiliary enterprise" expenditures; as a result, including them in the visitor-day spending total would be double counting.

As one can see in Table 14 and Table 15, the portion of the economic footprint associated with university events is relatively small compared to the university's operating budget and student spending on housing, foods and incidentals. Just the same, this is an important expenditure category and future university impact studies would be well served to have more accurate and detailed data on how many event attendees originate from outside the region as well as how much an event attendee spends locally on lodging, meals and shopping.

Explaining the Data and the Results

In this report, the term "ripple effects" is used to describe the cascading effects of a purchase by either institutions (such as a university or business) or consumers in a regional or state economy. Direct expenditures, or direct effects, are re-circulated in the economy when recipients of the first round of spending "re-spend" a portion of their income with other businesses and individuals within a region. A purchase at a retail store by a consumer, for example, is the end of a chain of economic transactions and relationships. Working backward, a purchase of a gallon of milk at the local grocery store provides some income to the grocery worker and some profit to the store owner. If the milk was produced locally, it also provides income to the dairy farmer, the local large-animal veterinarian and a local agricultural supply store, to name a few. Those incomes are re-circulated in the local

economy as those people spend their income on auto repair, groceries or home repair. Hence, that \$5 for the gallon of milk can be multiplied to \$7.50 or \$8.00 depending on how much of the money is retained and re-spent locally.

The IU Kokomo campus region for the analysis is comprised of Carroll, Cass, Clinton, Fulton, Grant, Hamilton, Howard, Madison, Miami, Tipton, and Wabash counties. Thus, the economic effects were measured for the campus region within Indiana, in contrast to measuring the economic benefit of IU Kokomo on Howard County alone. As stated in the full IU Impact Report, IBRC researchers attempted to rigorously apply the “but for” principle as expounded by Siegfried, Sanderson and McHenry.¹¹ The research team assumed, because of IU Kokomo’s mission and student composition (over half of the students are part-time), that most, if not all, students were economically and relationally tied to the campus region. As a result, opportunities to pursue a four-year university degree were limited. If IU Kokomo didn’t exist, most of the individuals who comprise the student body would still be living there.

The IBRC researchers assumed that IU Kokomo students would not leave the campus region and their spending would remain in the region even if IU Kokomo did not exist. As a result, the regional effect of student spending on housing, groceries, entertainment and the like was not included in the economic benefits of IU Kokomo. On the other hand, “but for” the existence of IU Kokomo, an argument can be made that these students would not have an opportunity to earn a four-year degree. As a result, IU Kokomo is credited with augmenting the region’s stock of human capital and increasing the lifetime earnings of IU Kokomo alumni. (The full report contains a more complete discussion of the assumptions and methodology underlying the analyses.) Another way to look at it, “but for” IU Kokomo’s existence, the region would lose additions to the region’s stock of human capital and those enhanced earnings, but would not lose a significant volume of economic activity because of non-university related student spending.

The sum of all the direct effects will not add up to the IU Kokomo total operating budget as reported by the Integrated Postsecondary Education Data System (IPEDS). There are several reasons for this:

1. To assess the effects of spending by faculty and staff, the analyst must reduce total compensation to reflect the leakages associated with income taxes, payroll taxes and savings.
2. Scholarships and student financial assistance represents reduction in revenues, even though they are treated as expenses in the university books.
3. The IMPLAN model calculates the effects of current spending, not the consumption of fixed capital, i.e., depreciation.
4. Construction expenditures can vary greatly over time. As a result, a five-year average of construction expenditures was used.

¹¹ *Ibid.*

Conclusion

IU Kokomo makes a vital contribution to north-central Indiana. This study presents a comprehensive, innovative and conservative assessment of the economic impact that IU Kokomo has on its region. IBRC researchers used many of the standard tools and methods to measure IU Kokomo's impact. The economic effects are clear. Through the spending of 227 full-time employees and purchases of goods and services, IU Kokomo creates economic ripples through the region. The IBRC estimated that the direct and ripple effects of university expenditures accounts for \$22.6 million of the economic activity in north-central Indiana.

Students, faculty and staff also “give back” to the community by volunteering and contributing to local charities. This study is one of few that chronicles and measures the economic benefits of the community and civic engagement. Information related to IU Kokomo's civic engagement was gathered through an extensive student and staff survey that collected data on a range of topics including spending patterns, volunteer activities and charitable contributions. The civic engagement dollar figure, which totals approximately \$123,300, was estimated by applying to total service-learning and volunteer hours the equivalent wages of occupations performing similar roles.

Assigning a dollar value to a university is a challenging task. Many university impact studies have overestimated the economic impact and overlooked, or underestimated, the other types of economic and cultural contributions that the institution makes to the region it serves. Clearly, the total dollar-and-cents contribution of IU Kokomo as reported in this study is but one dimension of IU Kokomo's total impact. This study attempted to provide a balanced view by expanding the scope and understanding of the contributions—tangible economic contributions as well as intangible contributions—that a university makes.