

Indiana University–Purdue University

# Columbus

Impact Study 2008



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

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# Executive Summary

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Indiana University–Purdue University Columbus has played a fundamental role in its region since it was established in 1970. IUPU Columbus provides south-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, IUPU Columbus strengthens the economic competitiveness of the area and increases the earning power of its residents. IUPU Columbus’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 IUPU Columbus improves the lives of Hoosiers in Columbus and the surrounding area. This report presents policymakers, university officials and Indiana taxpayers with comprehensive yet conservative estimates of the university’s impact. IUPU Columbus 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 IUPU Columbus is to consider results related to the core mission of the university as well as 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 IUPU Columbus. 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. Core benefits data highlight characteristics of the student body, the number and type of degrees conferred and the settlement patterns of recent graduates. These data help to answer many key questions including: Do alumni apply their skills in the state or find work elsewhere? Does IUPU Columbus curriculum meet the needs of area businesses?

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 IUPU Columbus’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 IUPU Columbus. 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 IUPU Columbus Students**, presents profiles of the student population and its recent graduates. IUPU Columbus's fall 2007 enrollment totaled 1,500 students—99 percent of whom were Indiana residents. Of the university's 234 degree recipients between 2005 and 2007, 92 percent were residing in Indiana as of 2008.
- The **Contribution to Human Capital** section examines IUPU Columbus's degree output and the economic value of these degrees to recipients. IUPU Columbus conferred 460 associate's, baccalaureate and master's degrees between 2002 and 2007 to students originally from its campus region (see Figure 1), accounting for 5 percent of all degrees conferred by Indiana public universities to this cohort. The most common field of study at both the baccalaureate and master's level was business administration.
- IUPU Columbus graduates earning baccalaureate degrees or higher can expect far greater lifetime earnings than people with a two-year associate's degree. The typical male IUPU Columbus graduate can expect to earn \$2.0 million over his lifetime and the typical female graduate can anticipate \$1.3 million in lifetime earnings. These figures are 55 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 IUPU Columbus'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 IUPU Columbus community also made \$82,200 in charitable contributions to organizations operating within the campus region.
- IUPU Columbus also enriches its region through community engagement programs, facilities and cultural offerings. Whether it's the Center for Executive Education, University Park or the campus library, IUPU Columbus gives 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 IUPU Columbus's employment of 73 faculty and staff, university spending accounts for an additional 38 jobs in the region.

**Table 1: Estimated Benefits of Student and Staff Civic Contributions, IUPU Columbus, 2006-2007**

<b>Civic Contribution</b>	<b>Estimate of Economic Benefit</b>
Service-Learning	\$35,300
Student, Faculty and Staff Volunteerism	\$53,500
<b>Total</b>	<b>\$88,800</b>

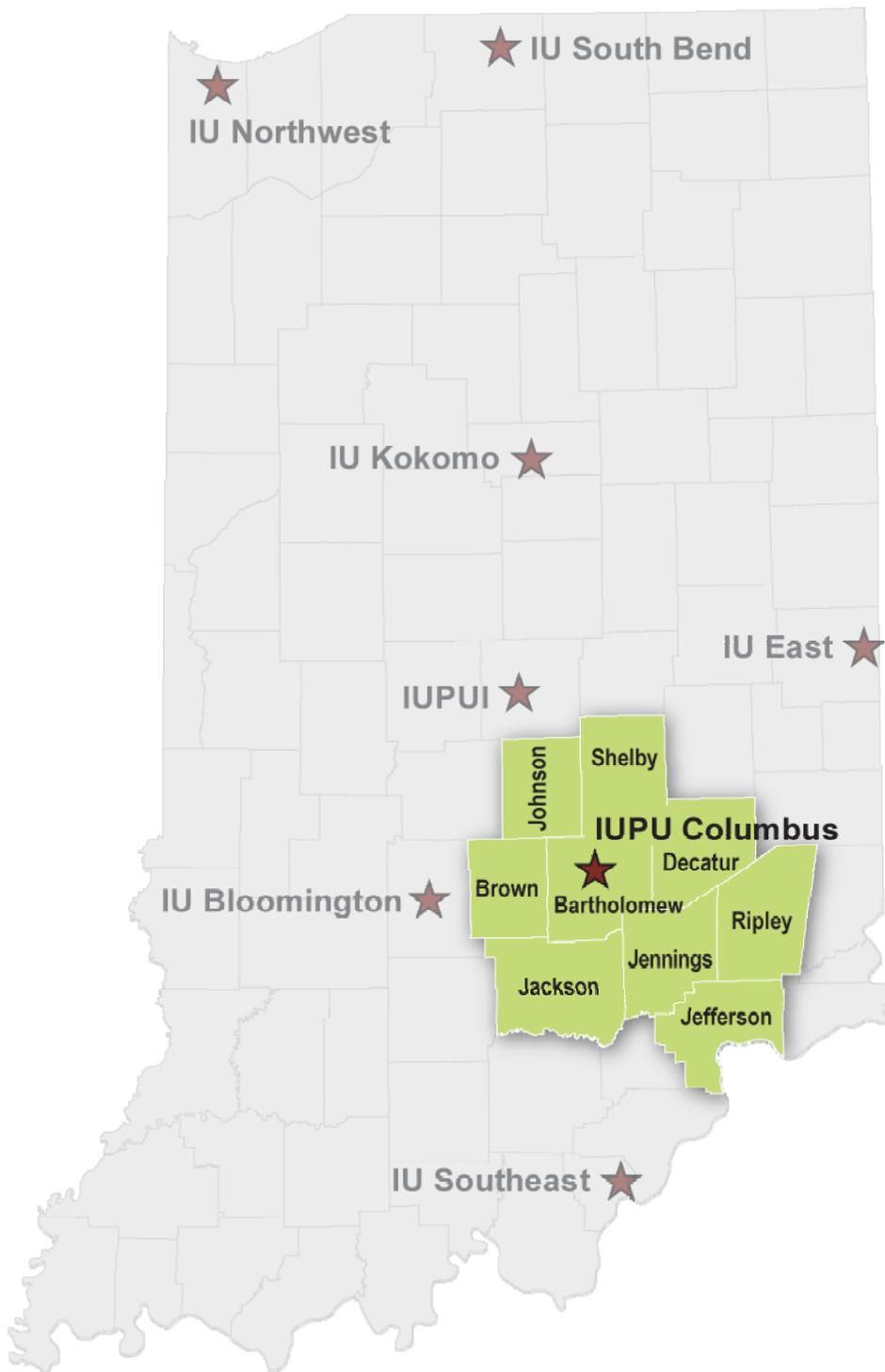
Source: Indiana Business Research Center (IBRC)

**Table 2: Estimated Employment and Economic Footprint, IUPU Columbus, 2006-2007**

<b>Type of Spending</b>	<b>Total Employment Effects</b> (number of jobs)	<b>Total Economic Output Effects</b> (in millions)
Faculty and Staff Compensation	30	\$5.5
University Purchases and Construction Expenditures	8	\$1.4
<b>Total</b>	<b>38</b>	<b>\$6.9</b>

Source: IBRC, using IMPLAN model results

Figure 1: IUPU Columbus Campus Region



# Characteristics of IUPU Columbus Students

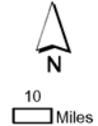
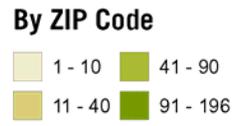
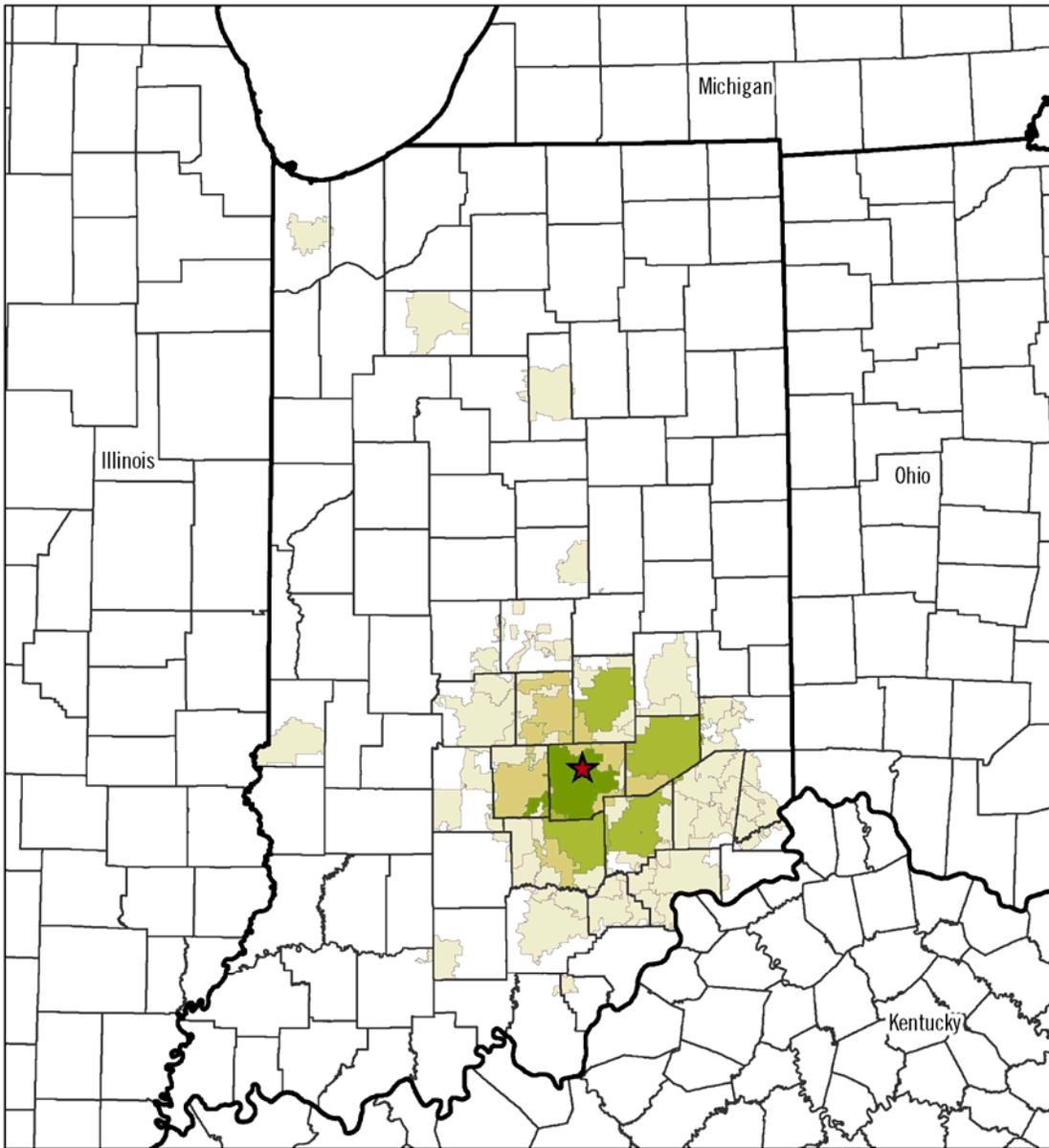
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In the fall of 2007, student enrollment at IUPU Columbus stood at 1,533 students. Sixty-two percent of these students attended full-time, while the remaining 38 percent attended part-time.

## Student Origin

Overall, 99.5 percent of IUPU Columbus 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 IUPU Columbus, Fall 2007



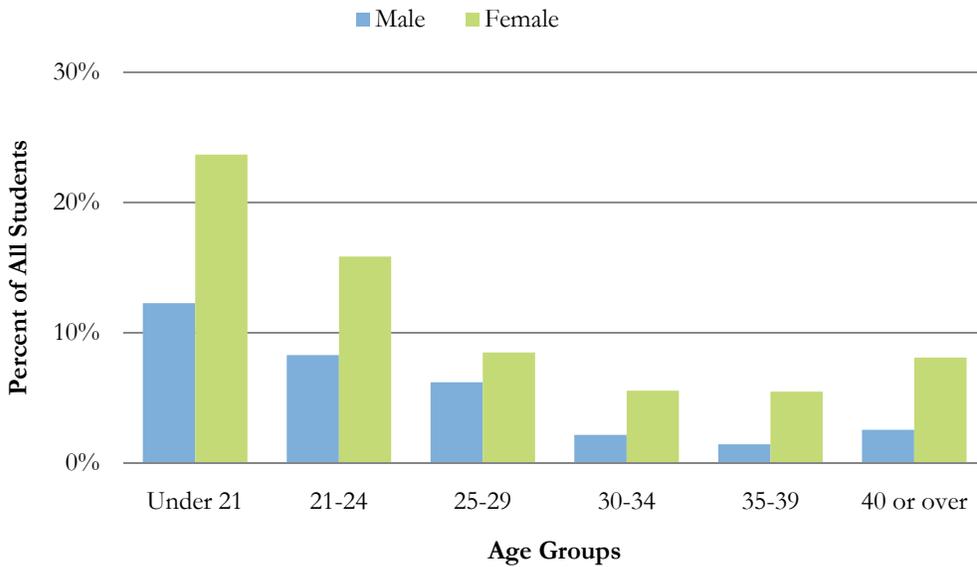
Source: Indiana Business Research Center, using data from the Office of University Planning, Institutional Research and Accountability

## Student Characteristics

### Age and Gender

Thirty-six percent of IUPU Columbus students are under the age of 21. Women comprise 67 percent of the student body. As shown in Figure 3, women outnumber men in every age group, particularly among those 30 or older.

**Figure 3: IUPU Columbus Students by Age and Gender, Fall 2007**

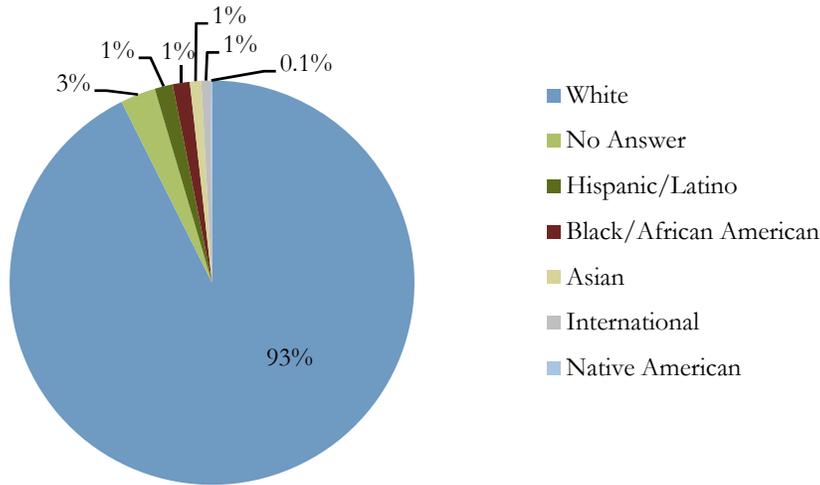


Source: IBRC, using data from the Office of University Planning, Institutional Research and Accountability

### Ethnicity

Ninety-three percent of the student body categorize themselves as white (see Figure 4). Under-represented minorities (blacks, Hispanics and Native Americans) account for just 3 percent of all students. Hispanics and blacks each comprise 1 percent of the student body, while Native Americans come in at only 0.1 percent.

**Figure 4: Ethnic Distribution of IUPU Columbus Students, Fall 2007**



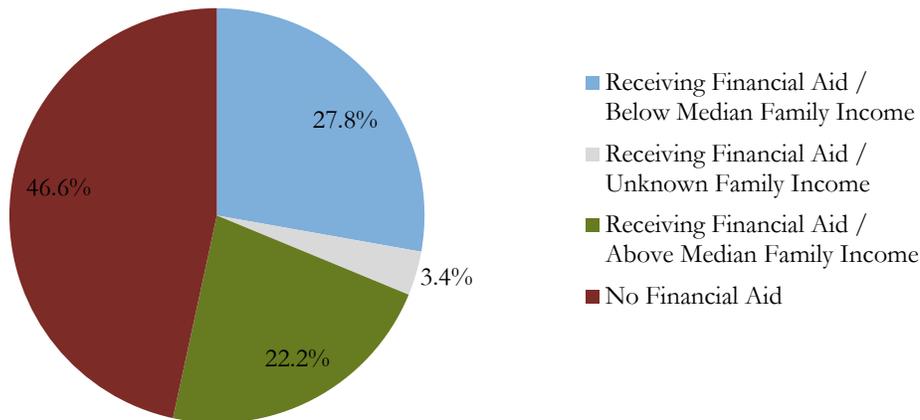
Note: Data on ethnicity were collected only for students applying from within the United States. The international category includes all those who applied from elsewhere in the world because the concept of ethnic identification varies from country to country. The Native American grouping includes both 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 half of full-time IUPU Columbus students receive financial aid. Additionally, almost 28 percent of 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 IUPU Columbus 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

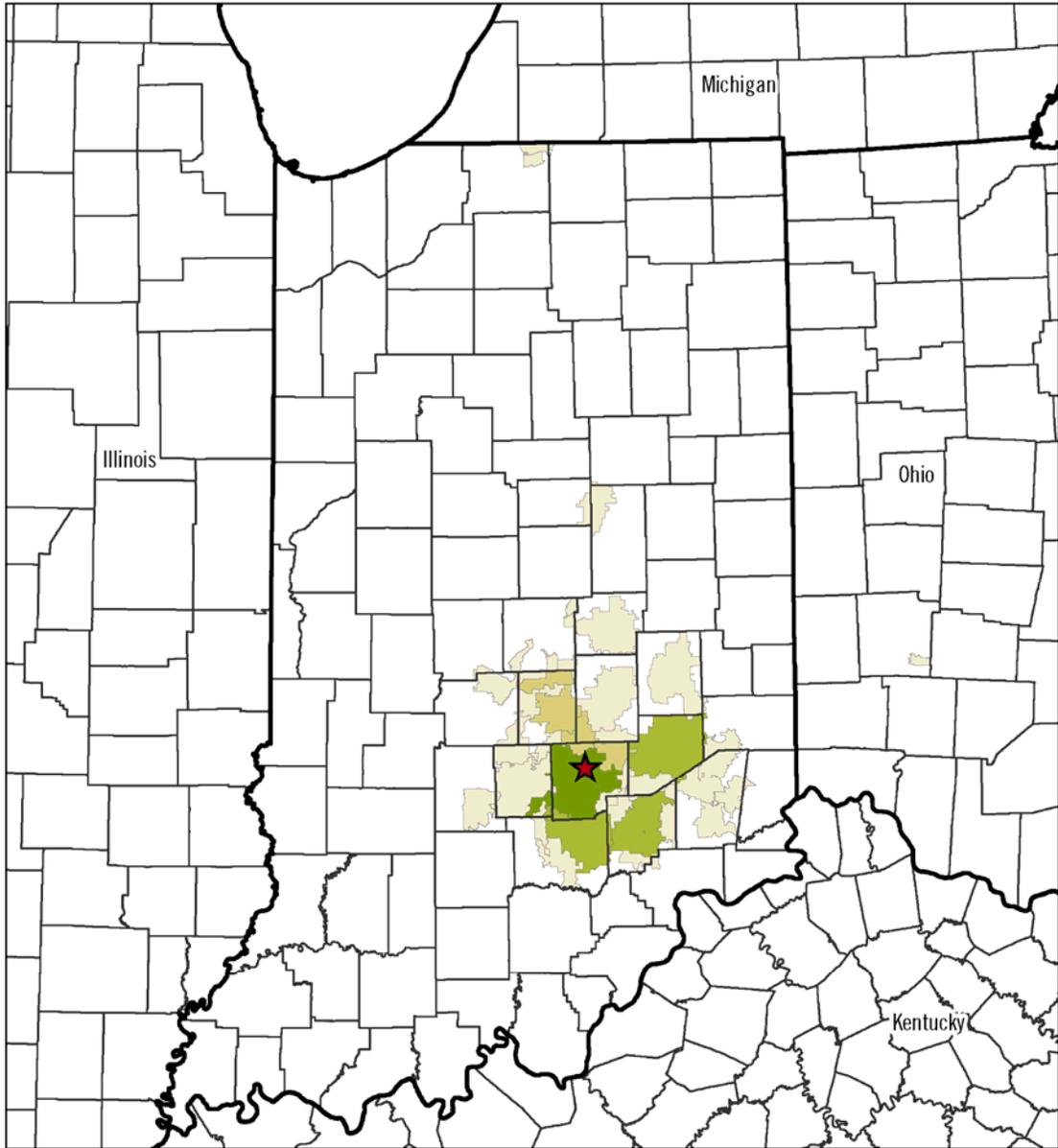
Where alumni settle after graduation plays a key role in analyzing the ultimate significance of a university campus. In contrast to those who leave, alumni who remain make ongoing contributions (e.g., increased productivity, income and cultural contributions) to their geographic region well after they complete their degrees. Ninety-two percent of recent IUPU Columbus graduates—those who received their degrees between 2005 and 2007—resided in the state as of 2008.<sup>1</sup>

Figure 6 shows the settlement pattern for recent graduates by ZIP code for Indiana and the surrounding states. Of IUPU Columbus's 234 degree recipients between 2005 and 2007, 87 percent still lived in the campus region in 2008.

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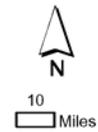
<sup>1</sup> Prior to 2005, most Columbus graduates were combined with IUPUI graduates in Alumni Association records.

Figure 6: Settlement of IUPU Columbus Graduates with Degrees Conferred 2005-2007



**By ZIP Code**

- 1 - 5
- 6 - 10
- 11 - 20
- 21 - 54



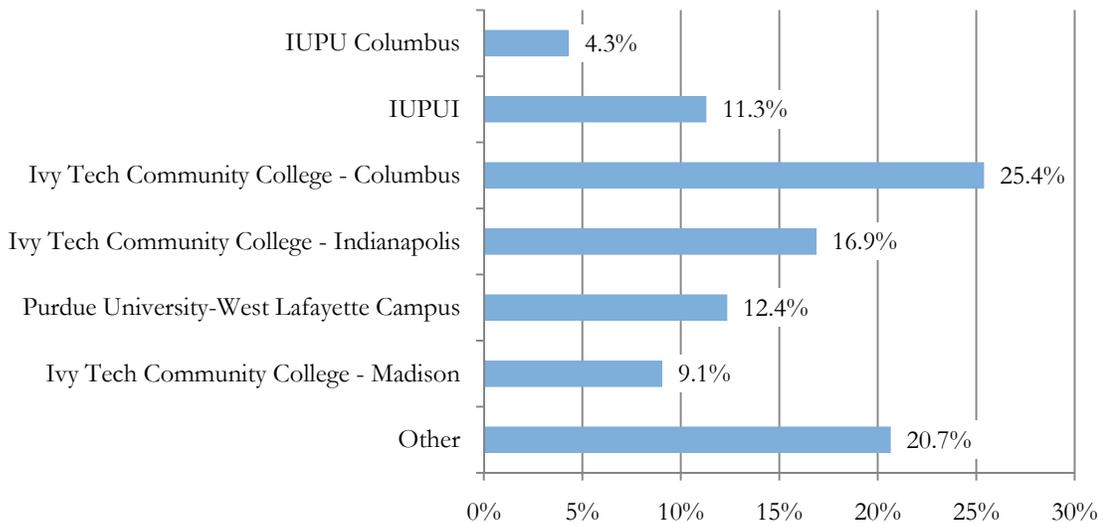
Source: Indiana Business Research Center, using data from the IU Alumni Association, February 2008

# Contribution to Human Capital

## Degrees Conferred

Associate's degree graduates originally from the IUPU Columbus campus region<sup>2</sup> chose a variety of institutions to complete their degrees and IUPU Columbus ranked third among them. Figure 7 shows that the only two other public universities in this region—Ivy Tech Community College's Columbus and Madison campuses—accounted for 25 percent and 9 percent of natives' associate's degrees, respectively. This means that the majority of residents of this nine-county division of south-central Indiana went to institutions in other parts of the state to earn their associate's degrees.

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

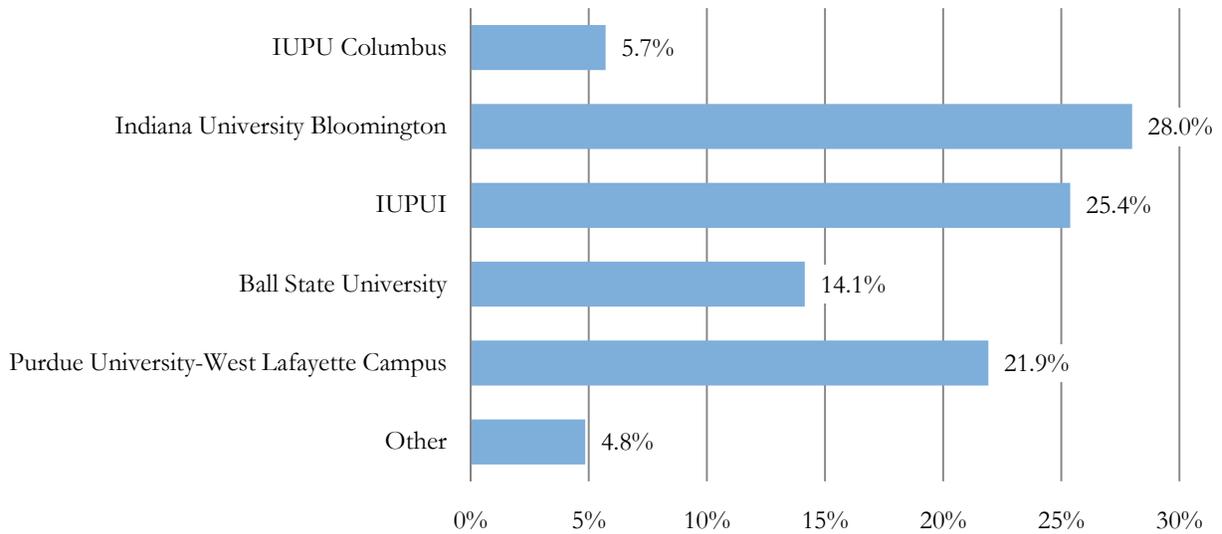


Source: IBRC, using data from the Indiana Commission for Higher Education

Almost 6 percent of campus region residents who earned a baccalaureate degree from one of Indiana's public universities between 2002 and 2007 did so at IUPU Columbus. All other four-year degree recipients obtained their degrees outside the region—mostly at IU's Bloomington and IUPUI campuses (28 and 25 percent, respectively), followed by Purdue University–West Lafayette (22 percent) and Ball State University (14 percent).

<sup>2</sup> The IUPU Columbus campus region includes the following nine counties: Bartholomew, Brown, Decatur, Jackson, Jefferson, Jennings, Johnson, Ripley and Shelby.

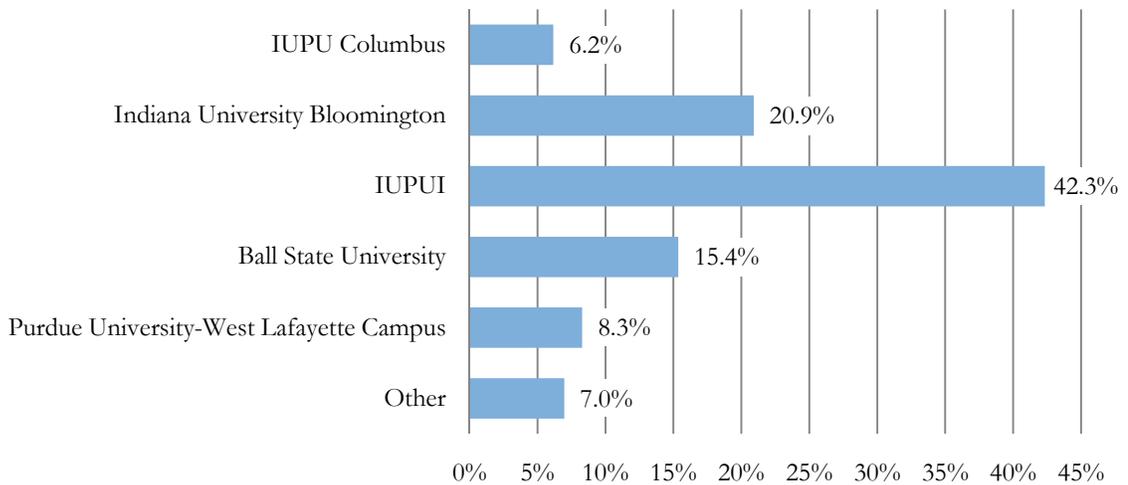
**Figure 8: Baccalaureate Degrees Conferred by Indiana Public Universities for Graduates Originally from the IUPU Columbus Campus Region, 2002-2007**



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

While over 62 percent of these south-central Indiana residents attended IU Bloomington and IUPUI to obtain their master's degrees between 2002 and 2007, 6 percent obtained their graduate degrees locally at IUPU Columbus, only marginally less than Purdue University–West Lafayette graduates.

**Figure 9: Master's Degrees Conferred by Indiana Public Universities for Graduates Originally from the IUPU Columbus 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 IUPU Columbus 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.<sup>3</sup>

Table 3 shows that a recent female IUPU Columbus baccalaureate graduate is expected to earn \$1.2 million dollars from employment over the course of her lifetime. In particular, two of the most popular degree fields—business and arts and humanities—are associated with lifetime earnings of over \$1.3 million, even without completing an additional graduate degree.

**Table 3: Estimated Lifetime Earnings for Female Baccalaureate Degree Graduates, IUPU Columbus, 2002-2007**

Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Business Administration and Management	13	\$1,347
Social Sciences (except Economics)	12	1,182
Arts and Humanities (except Music, Visual & Performing Arts)	11	1,303
Education (except Administrative and Math & Science Education)	8	964
Other Fields	1	1,329
<b>Overall</b>	<b>45</b>	<b>\$1,223</b>

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 IUPU Columbus typically earn an estimated \$1.8 million from employment over their lifetimes (see Table 4). This is due to the fact that these graduates complete master's degrees in business administration and management.

<sup>3</sup> For more detail, please read the methodology section of the main report.

**Table 4: Estimated Lifetime Earnings for Female Advanced Degree Graduates, IUPU Columbus, 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	4	\$1,848
<b>Overall</b>		<b>4</b>	<b>\$1,848</b>

Note: Numbers may not sum due to rounding. Table does not include one graduate with education 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

Meanwhile, men who recently completed baccalaureate degrees are expected to earn \$1.7 million dollars in lifetime earnings from employment (see Table 5). The most popular degree field—business administration and management—is associated with lifetime earnings of \$1.9 million, even if these graduates do not complete an additional advanced graduate degree.

**Table 5: Estimated Lifetime Earnings for Male Baccalaureate Degree Graduates, IUPU Columbus, 2002-2007**

Field of Study	Average Annual Number of Graduates (2002-2007)	Lifetime Earnings per Person (in thousands)
Business Administration and Management	9	\$1,902
Arts and Humanities (except Music, Visual & Performing Arts)	6	1,553
Social Sciences (except Economics)	2	1,757
Education (except Administrative and Math & Science Education)	1	1,250
Other Fields	1	1,724
<b>Overall</b>	<b>19</b>	<b>\$1,726</b>

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 IUPU Columbus do so in business administration and management with an estimated lifetime earning potential of \$2.4 million (see Table 6).

**Table 6: Estimated Lifetime Earnings for Male Advanced Degree Graduates, IUPU Columbus, 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	11	\$2,420
<b>Overall</b>		<b>11</b>	<b>\$2,420</b>

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

The value of obtaining a four-year college degree or higher is highlighted when one compares the difference between the estimated lifetime earnings of IUPU Columbus' baccalaureate and advanced degree graduates with the earnings of associate's degree graduates nationwide (see Table 7). Over the life course, IUPU Columbus' female graduates are expected to make \$294,000 (or 30 percent) more than associate's degree graduates. Male graduates are expected to make over \$704,000 (or 55 percent) more than associate's degree graduates.

**Table 7: Difference in Lifetime Earnings between IUPU Columbus Graduates (Baccalaureate Degree or Higher) and U.S. Associate's Degree Graduates**

Category	Women (\$1000s)	Men (\$1000s)
Average Lifetime Earnings for Alumni (2002-2007) with Baccalaureate Degrees or Higher	\$1,276	\$1,982
Average Lifetime Earnings for U.S. Associate's Degree Graduates	\$983	\$1,278
<b>Additional Lifetime Earnings Attributable to Higher Degree</b>	<b>\$294</b>	<b>\$704</b>

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 IUPU Columbus (compared to holders of associate's degrees) leads to an estimated \$35 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 IUPU Columbus.

# Civic Contribution

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## Service-Learning<sup>4</sup>

IUPU Columbus students are highly engaged in service-learning in and around Bartholomew County. Table 8 estimates the equivalent compensation for occupations of similar roles. In total, equivalent costs amounts to \$48,326 per year for an economic impact of nearly \$35,280 during the 2006 and 2007 academic year.<sup>5</sup>

Students from several divisions—particularly nursing and education—contribute many service hours as part of their degree requirements. Nursing students generally serve eight hours per week at Columbus Regional Hospital and several other area hospitals and clinics as part of the clinical component of the training for both the associate’s and bachelor’s degree programs. They also coordinate a major health fair in Columbus every year so that, in sum, nursing students contribute an estimated 1,925 hours of service-learning every year. Education students assist teachers and students at local elementary schools, serve as English as a Second Language (ESL) instructors and after-school and summer tutors in reading, math and science for an estimated annual total of 1,900 hours of service. University College students, first-year students who have not declared their major, also participate in a special course with a required community service component so that they contribute an estimated 140 hours per year.

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<sup>4</sup> This section uses service descriptions from the IUPU Columbus Civic Engagement Directory (May 18, 2007 draft) and hourly estimates compiled by Laura Lee Wetzel (Associate Director, Center for Executive Education at IUPU Columbus). Details on requirements of the nursing program were provided by Deborah Harmon (Director, School of Nursing).

<sup>5</sup> This study 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 in the full IU Impact Study for more information.

**Table 8: Economic Benefit of Service-Learning, IUPU Columbus, 2006-2007**

Division (Volunteer Role)	Estimated Hours	Equivalent Hourly Compensation	Equivalent Annual Compensation
Nursing (public health and hospital assistants)	1,925	\$11.22	\$21,598
Education (child tutoring)	1,900	10.43	19,816
Business (nonprofit project management)	375	14.31	5,365
University College	140	9.52	1,333
Liberal Arts	23	9.52	214
<b>Total</b>	<b>4,363</b>		<b>\$48,326</b>
Price-to-Client Value Ratio			73%
<b>Economic Benefit of Service-Learning</b>			<b>\$35,278</b>

Note: Numbers may not sum due to rounding. Equivalent hourly compensation is based on wages and benefits of similar occupations and the overall economic impact assumes a 0.73 market price-to-client value ratio. Please see the methodology section for details.

Source: IBRC, using estimated hours of service provided by Indiana University-Purdue University Columbus (IUPU Columbus), Center for Executive Education and wage data from the U.S. Bureau of Labor Statistics

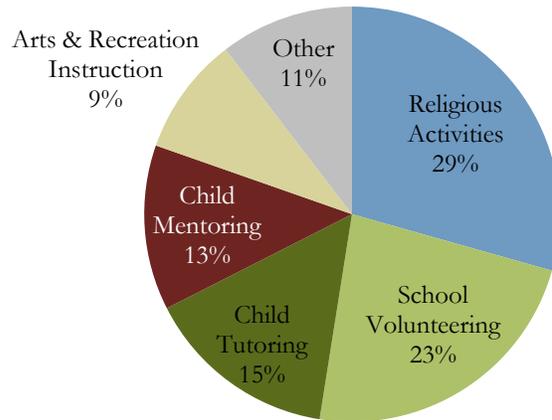
## Volunteering

IUPU Columbus students, faculty and staff are active in the local community, particularly through experts' presentations and public seminars and, in conjunction with the Alumni Association, the Excellence in Leadership Series and Possum Trot Bicycle Boogie (fundraiser for scholarships). Division of Business faculty work extensively with the Columbus Area Chamber of Commerce and students engage in strategic consulting projects with nonprofit organizations. In addition, faculty members are active in local education initiatives, serve on school boards, and lead public health and wellness events.

IUPU Columbus students volunteered an average of 65 hours over the 2006-2007 academic year according to the IU Student Survey of full-time students. Figure 10 reveals the most popular volunteer activities for these full-time students.<sup>6</sup> Compared to other campuses, students at IUPU Columbus participate in a wide range of volunteer activities devoted to children with over half of all volunteer service attributed to school volunteering, child tutoring and child mentoring.

<sup>6</sup> 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.

**Figure 10: Volunteer Time Spent by Activity for IUPU Columbus Students, 2006-2007**



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

Despite the small size of the campus, after extrapolating the student survey results to the entire full-time student body, IUPU Columbus student service amounted to more than 61,000 volunteer hours. This service was conducted overwhelmingly in the campus region. Table 9 summarizes the volunteer services of IUPU Columbus students and estimates that these services amount to a net economic benefit of \$49,500 to the campus region even only counting service of the 10 percent of students who originate from outside the region.

**Table 9: Economic Benefit of Student Volunteering Activities, IUPU Columbus, 2006-2007**

Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Religious Activities	17,936	96.8	\$11.97	\$207,710
School Volunteering	14,102	96.6	10.43	142,002
Child Mentoring	7,841	100.0	12.63	99,014
Child Tutoring	9,170	95.7	10.43	91,479
All Other Activity	6,358	97.3	9.52	58,900
Arts & Recreation Instruction	5,625	100.0	9.74	54,771
<b>Total</b>	<b>61,032</b>			<b>\$653,875</b>
Percent of Students Not from Campus Region				10.37%
Price-to-Client Value Ratio				73%
<b>Overall Economic Benefit of Student Volunteering</b>				<b>\$49,499</b>

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 fall of 2007 was 945. 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 20 hours over the 2006-2007 academic year. After extrapolating the faculty and staff survey results to all full-time employees, IUPU Columbus employee volunteer service totaled nearly 1,400 hours (see Table 10). Taking a conservative approach, IBRC analysis assumed that “but for” the presence of IUPU Columbus, the full-time faculty would not live and work in the region and as a result, would not volunteer in south-central Indiana. While this is likely true of professional staff as well, the university employee data did not allow breaking out professional staff from 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 full-time faculty.) As a result, the conservative estimate of economic benefits counts only full-time faculty volunteering and is worth more than \$4,000 to the region.

Table 10: Economic Benefit of Employee Volunteering Activities, IUPU Columbus, 2006-2007

Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Total*	1,388	100.0%	\$9.52	\$13,216
Percent of Employees Who Are Faculty				42.44%
Price-to-Client Value Ratio				73%
<b>Overall Economic Benefit of Employee Volunteering</b>				<b>\$4,094</b>

\*The small sample size of the IUPU Columbus Faculty and Staff Survey made it impossible to statistically determine the breakdown of different types of volunteer service.

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 68. Please see the methodology section for details.

Source: IBRC, using volunteer data from the 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

IUPU Columbus also “gives back” to the region through student and employee donations to charities. Table 11 shows that full-time IUPU Columbus students donated an average of \$106 over the 2006-2007 academic year. Extrapolating the survey average to the entire full-time student body, students at IUPU Columbus gave nearly \$100,000—with almost half of these funds given to organizations within the nine-county campus region.

**Table 11: Economic Benefit of Student Charitable Contributions, IUPU Columbus, 2006-2007**

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	47.3%	\$50
Other Parts of Indiana	45.6%	\$48
Outside of Indiana	7.1%	\$8
Total Contribution per Person		\$106
Total Contribution of All Students		\$99,607
<b>Contribution within Campus Region</b>		<b>\$47,154</b>

Note: Table reports full-time students. In the fall of 2007, the number of full-time students was 944.  
 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 Faculty and Staff Survey, full-time employees contributed an average of \$802 during the 2006-2007 academic year. Multiplying this average by the number of full-time faculty and staff, IUPU Columbus employees gave more than \$54,500. Table 12 shows that the majority of these funds were donated to local organizations. The impact in the campus region was over \$35,000.

**Table 12: Economic Benefit of Employee Charitable Contributions, IUPU Columbus, 2006-2007**

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	64.3%	\$516
Other Parts of Indiana	22.1%	\$177
Outside of Indiana	13.6%	\$109
Total Contribution per Person		\$802
Total Contribution of All Employees		\$54,555
<b>Contribution within Campus Region</b>		<b>\$35,084</b>

Note: Table reports full-time employees. In the fall of 2007, the number of full-time faculty and staff was 68.  
 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 IUPU Columbus campus.

### Arts and Culture

In addition to being affiliated with the many events that occur at the Columbus Learning Center, IUPU Columbus maintains public displays at its University Park and hosts the Human Experience Film Series.

## Library Services

Besides students, faculty and staff, 1,510 members of the public used the IUPU Columbus Library, which is housed in the Columbus Learning Center, during the 2006-2007 academic year. Community members borrowed 312 books for a benefit valued at \$2,315. 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*.<sup>7</sup> In addition, members of the public are free to use the library's audiovisual resources and computer services by requesting a free network ID.

## Other Resources

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

**Table 13: Community Resources Offered by IUPU Columbus**

Community Resource	Adult/ Continuing Education	K-12 Education Resources	Economic Development/ Business Leadership	Event Hosting/ Shopping Facilities
Bookstore				X
Center for Executive Education	X		X	
Center for Teaching & Learning	X	X		
Economic Outlook Breakfast*			X	
IUPUC Downtown: Connecting for Lunch*	X		X	
Speed Networking*			X	

\*in conjunction with the IUPU Columbus Alumni Association

Note: This list does not include civic engagement or 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 IUPU Columbus 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

<sup>7</sup> Indiana Business Research Center. 2007. "The Economic Impact of Libraries in Indiana." Available online at: [www.ibrc.indiana.edu/studies/EconomicImpactOfLibraries\\_2007.pdf](http://www.ibrc.indiana.edu/studies/EconomicImpactOfLibraries_2007.pdf)

the visitors attending IU-related events.<sup>8</sup> Users of the model’s results should be aware that the figures are estimates, not a precise accounting of the effects of IUPU Columbus on the regional economy.

## Principal Findings

- The total economic footprint of IUPU Columbus on the university campus region amounts to \$6.9 million annually.
- This economic activity generates approximately \$208,000 in state and local taxes.
- IUPU Columbus faculty and staff spending, together with university direct purchases and construction projects, results in ripple effects of approximately \$1.3 million in additional economic activity and accounts for approximately 11 jobs in the university campus region.

Table 14 presents the relative economic effects of four major spending categories and their ripple effects on the IUPU Columbus 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 IUPU Columbus, 2006-2007**

Economic Output Effects of University	Direct Effects (in millions)	Ripple Effects (in millions)	Total Footprint (in millions)
Faculty and Staff Compensation	\$4.5	\$1.0	\$5.5
University Purchases of Goods and Services	0.9	0.2	1.1
University Construction	0.2	0.1	0.3
Visitor Expenditures Attributed to IU Events	0.0	0.0	0.0
<b>TOTAL Effect on Economic Output</b>	<b>\$5.6</b>	<b>\$1.3</b>	<b>\$6.9</b>

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 IUPU Columbus. In addition to the 73 persons employed by IUPU Columbus,<sup>9</sup> the spending by university faculty, staff and students, together with university purchasing, account for another 38 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 IUPU Columbus creates demand for higher-paying jobs like physicians to serve faculty and staff, a majority of jobs are in the lower-paying service sector.

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

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

**Table 15: Estimated Employment Footprint of IUPU Columbus, 2006-2007**

Employment Effects of University	Direct Effects	Ripple Effects	Total Footprint
Faculty and Staff Compensation	22	8	30
University Purchases of Goods and Services	3	2	5
University Construction	2	1	3
Visitor Expenditures Attributed to IU Events	-	-	-
<b>TOTAL Effect on Employment</b>	<b>27</b>	<b>11</b>	<b>38</b>

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?<sup>10</sup> 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 IUPU Columbus 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

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

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.

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, IUPU Columbus 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 Columbus. In other words, this is not an advantageous calculation with respect to IUPU Columbus'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 \$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.

For IUPU Columbus, the portion of the economic footprint associated with university events is very small and was not of sufficient size to register in a table denominated in millions of dollars. 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 IUPU Columbus campus region for the economic impact analysis is comprised of Bartholomew, Brown, Decatur, Jackson, Jefferson, Jennings, Johnson, Ripley, and Shelby counties. Thus, the economic effects were measured for the entire campus region, in contrast to measuring the economic benefits of IUPU Columbus on Bartholomew 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.<sup>11</sup> The research team assumed, because of IUPU Columbus’s mission and student composition (38 percent of the students are part-time), that most students were economically and relationally tied to the campus region. As a result, opportunities to pursue a four-year university degree were limited. If IUPU Columbus didn’t exist, most of the individuals who comprise the student body would still be living there.

The IBRC researchers assumed that IUPU Columbus students would not leave the campus region and their spending would remain in the region even if IUPU Columbus did not exist. As a result, the regional impact of student spending on housing, groceries, entertainment and the like was not included in the economic benefits of IUPU Columbus. On the other hand, “but for” the existence of IUPU Columbus, an argument can be made that these students would not have an opportunity to earn a four-year degree. As a result, IUPU Columbus is credited with augmenting the region’s stock of human capital and increasing the lifetime earnings of IUPU Columbus 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” IUPU Columbus’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 IUPU Columbus total operating budget as reported by the Integrated Postsecondary Education Data System (IPEDS) for several reasons:

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.

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<sup>11</sup> *Ibid.*

# Conclusion

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IUPU Columbus makes a vital contribution to south-central Indiana. This study presents a comprehensive, innovative and conservative assessment of the economic impact that IUPU Columbus has on its region. IBRC researchers used many of the standard tools and methods to measure IUPU Columbus's impact. The economic effects are clear. Through the spending of 73 full-time employees and purchases of goods and services, IUPU Columbus creates economic ripples through the region. The IBRC estimated that the direct and ripple effects of university expenditures accounts for \$6.9 million of the economic activity in south-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 IUPU Columbus'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 \$88,200, 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 IUPU Columbus as reported in this study is but one dimension of IUPU Columbus'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.