

Indiana University

East

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 East in Richmond has played a fundamental role in its region since it was established in 1971. IU East provides the residents of east-central Indiana with affordable and convenient access to a range of continuing education, certificate and degree offerings at a premier university. As a result, IU East strengthens the economic competitiveness of the area and increases the earning power of its residents. IU East'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 East improves the lives of Hoosiers in east-central Indiana. This report presents policymakers, university officials and Indiana taxpayers with comprehensive yet conservative estimates of the university's impact. IU East 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 East 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 IU East. 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 East 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 East'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 East. 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 East Students**, presents profiles of the student population and its recent graduates. IU East's fall 2007 enrollment totaled 2,400 students—87 percent of whom were Indiana residents. Of the university's 1,000 degree recipients between 1998 and 2002, 80 percent were residing in Indiana as of 2008. The two leading counties of residence for this cohort are Indiana's Wayne and Fayette counties.
- The **Contribution to Human Capital** section examines IU East's degree output and the economic value of these degrees to recipients. IU East conferred 1,000 associate's and baccalaureate 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. Over this five-year period, the university also awarded 200 degrees related to life sciences to residents in its campus region.
- IU East 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 East graduate can expect to earn \$1.6 million over his lifetime and the typical female graduate can anticipate \$1.2 million in lifetime earnings. These figures are 28 percent and 26 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 East's **Civic Contribution**. Through service-learning programs and volunteerism, students and 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 East community also made \$174,900 in charitable contributions to organizations within the campus region
- IU East also enriches its region through community engagement programs, facilities and cultural offerings. Whether it is the Center for Entrepreneurship, the Center for Health Promotion or the campus library, IU East 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 East’s employment of 228 faculty and staff, university spending accounts for an additional 112 jobs in the region.

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

Civic Contribution	Estimate of Economic Benefit
Service-Learning	\$74,600
Student and Staff Volunteerism	\$204,300
Total	\$278,900

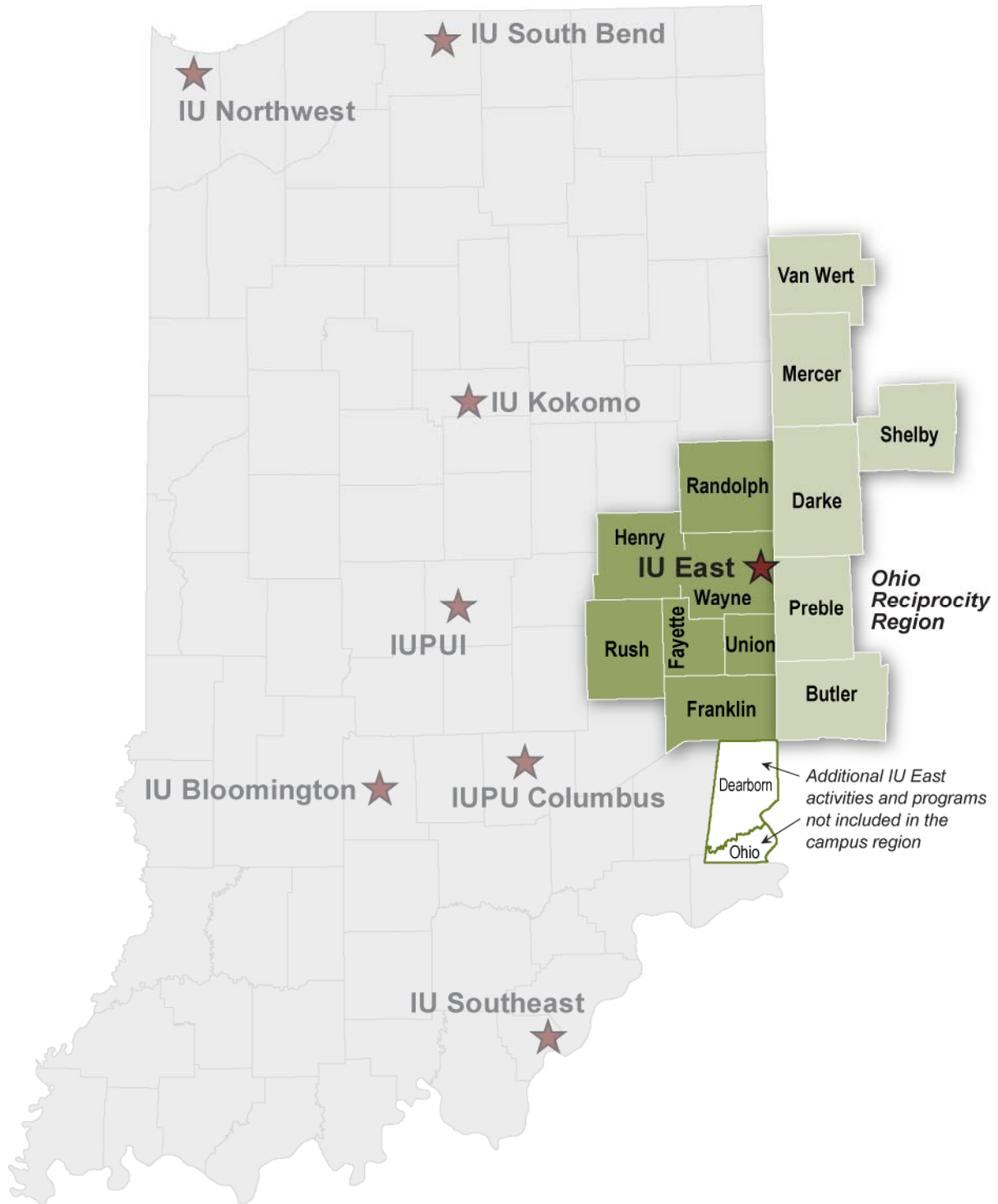
Source: Indiana Business Research Center (IBRC)

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

Type of Spending	Total Employment Effects (number of jobs)	Total Economic Output Effects (in millions)
Faculty and Staff Compensation	80	\$15.1
University Purchases and Construction Expenditures	32	\$7.4
Visitor Expenditures	2	\$0.1
Total	114	\$22.6

Source: IBRC, using IMPLAN model results

Figure 1: IU East Campus Region



Source: Indiana Business Research Center

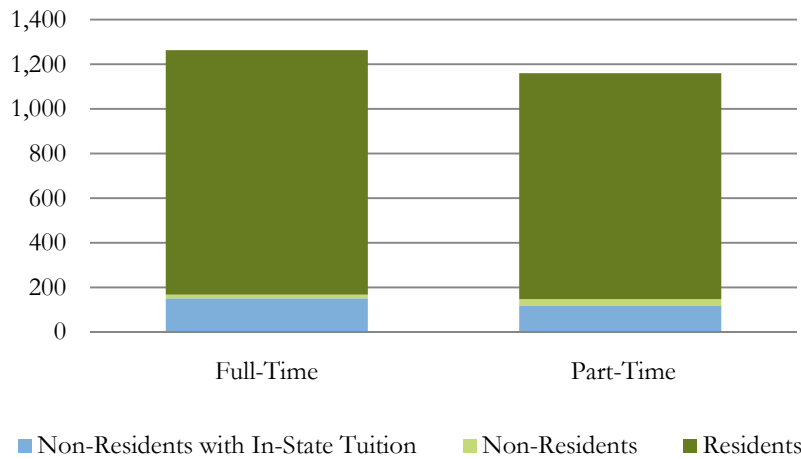
Characteristics of IU East Students

In the fall of 2007, IU East had an enrollment of 2,423 students. Fifty-two percent of these students attended full-time, while the remaining 48 percent attended part-time.

Student Origin

Overall, 87 percent of IU East students are Indiana residents. Due to a reciprocity agreement, students from six Ohio counties receive in-state tuition. These Ohio counties account for the vast majority of out-of-state students (see Figure 2). IU East has a very limited number of graduate students (42 individuals) and all of them are from Indiana.

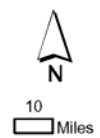
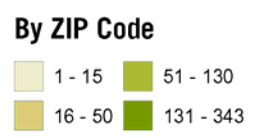
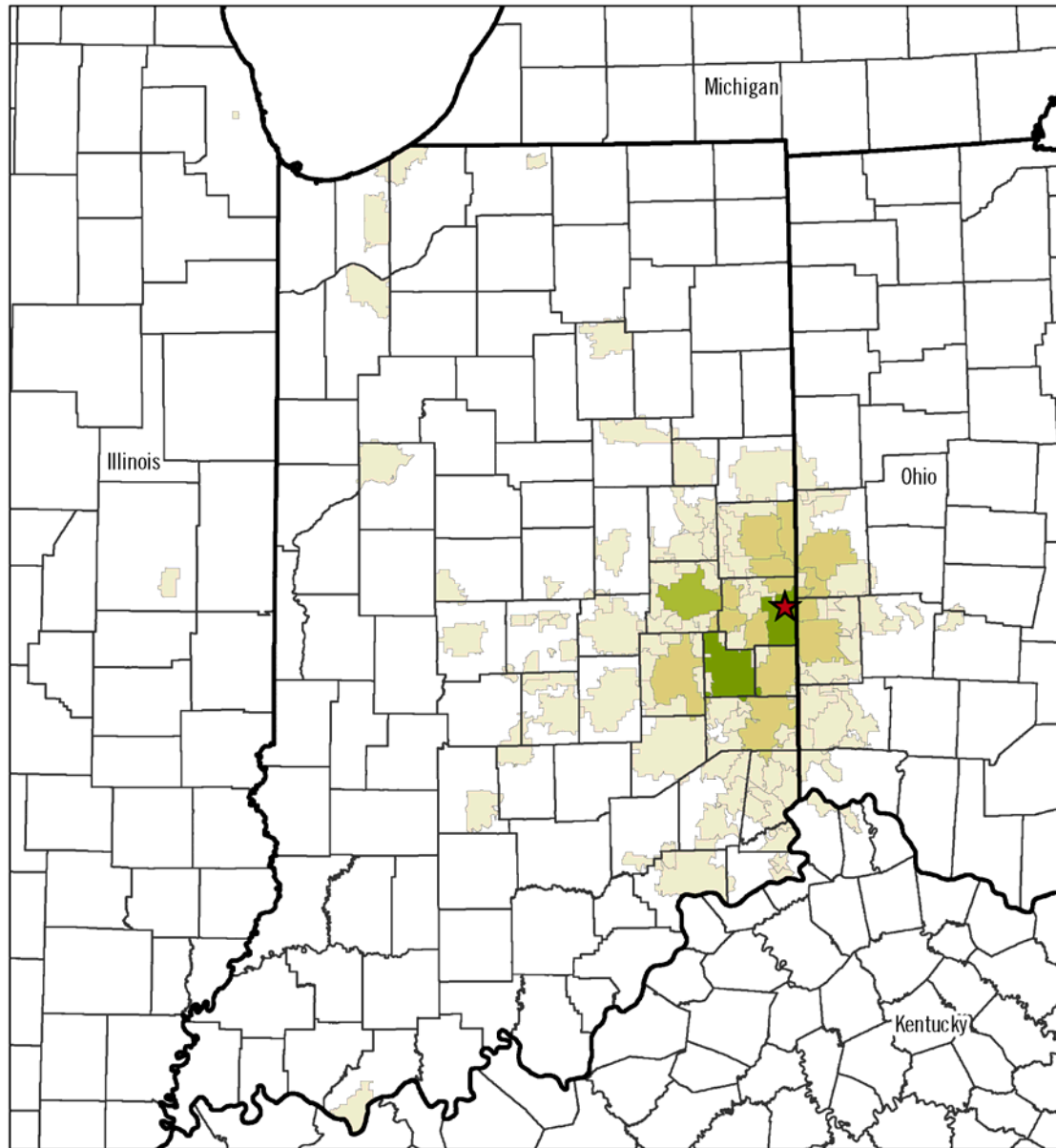
Figure 2: IU East Students by Tuition Residency Status, Fall 2007



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

As of the 2007 fall semester, students came to IU East from seven states. Figure 3 shows the number of full-time students by ZIP code for Indiana and the surrounding areas.

Figure 3: Residence of Origin for Full-Time Students of IU East, Fall 2007



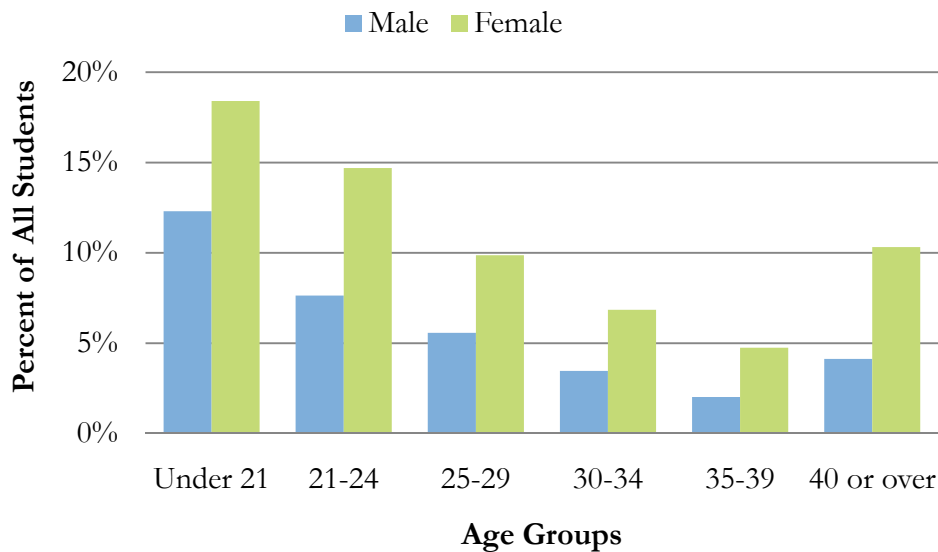
Source: Indiana Business Research Center, using data from the Office of University Planning, Institutional Research and Accountability

Student Characteristics

Age and Gender

Thirty-one percent of IU East students are under the age of 21. As shown in Figure 4, female students dramatically outnumber male students across all age groups, comprising 65 percent of the student body overall. Whereas women account for 60 percent of the under-21 age group, that number increases to 71 percent for the 40-or-over category.

Figure 4: IU East Students by Age and Gender, Fall 2007

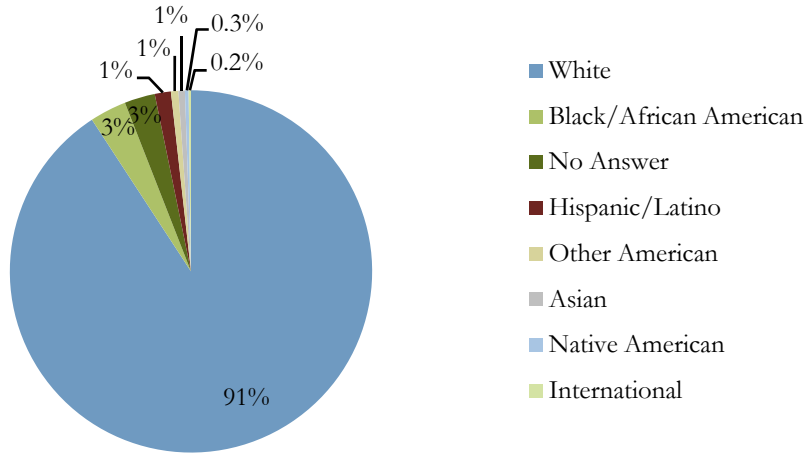


Source: IBRC, using data from the Office of University Planning, Institutional Research and Accountability

Ethnicity

Ninety-one percent of the student body categorize themselves as white (see Figure 5). Under-represented minorities (blacks, Hispanics and Native Americans) account for 5 percent of all students. This is the lowest percentage among IU’s campuses. Blacks comprise 3.3 percent of the student body, followed by Hispanics at 1.4 percent and Native Americans at 0.3 percent.

Figure 5: Ethnic Distribution of IU East Students, Fall 2007



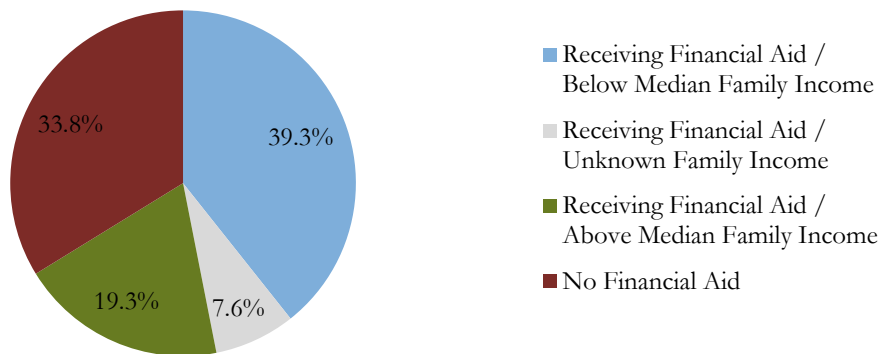
Note: Data on ethnicity were collected only for students applying from within the United States. The international category includes all those who applied from elsewhere in the world, because the concept of ethnic identification varies from country to country. The Native American grouping includes both 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 6 shows that almost two-thirds of full-time IU East students receive financial aid. Additionally, about 39 percent of full-time students both receive financial aid and are from households with family incomes lower than the Indiana median of \$47,074. IU East has the highest proportion of low income financial-aid recipients among IU campuses, largely due to the fact that most students come from the surrounding relatively low-income region.¹

Figure 6: Financial Aid and Family Income Status of Full-Time IU East 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

¹ IU East is located in Wayne County, which is part of Indiana Economic Growth Region (EGR) 6 which ranked 10th among Indiana’s 11 EGRs in per capita personal income (Source: STATS Indiana, www.stats.indiana.edu/profiles/pregr6.html).

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 make ongoing contributions (e.g., increased productivity, income and cultural contributions) to their geographic region well after they complete their degrees. Table 3 shows that 80 percent of recent IU East graduates—those who received their degrees between 1998 and 2002—resided in the state as of 2008. The next most popular states were Ohio and Florida.

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

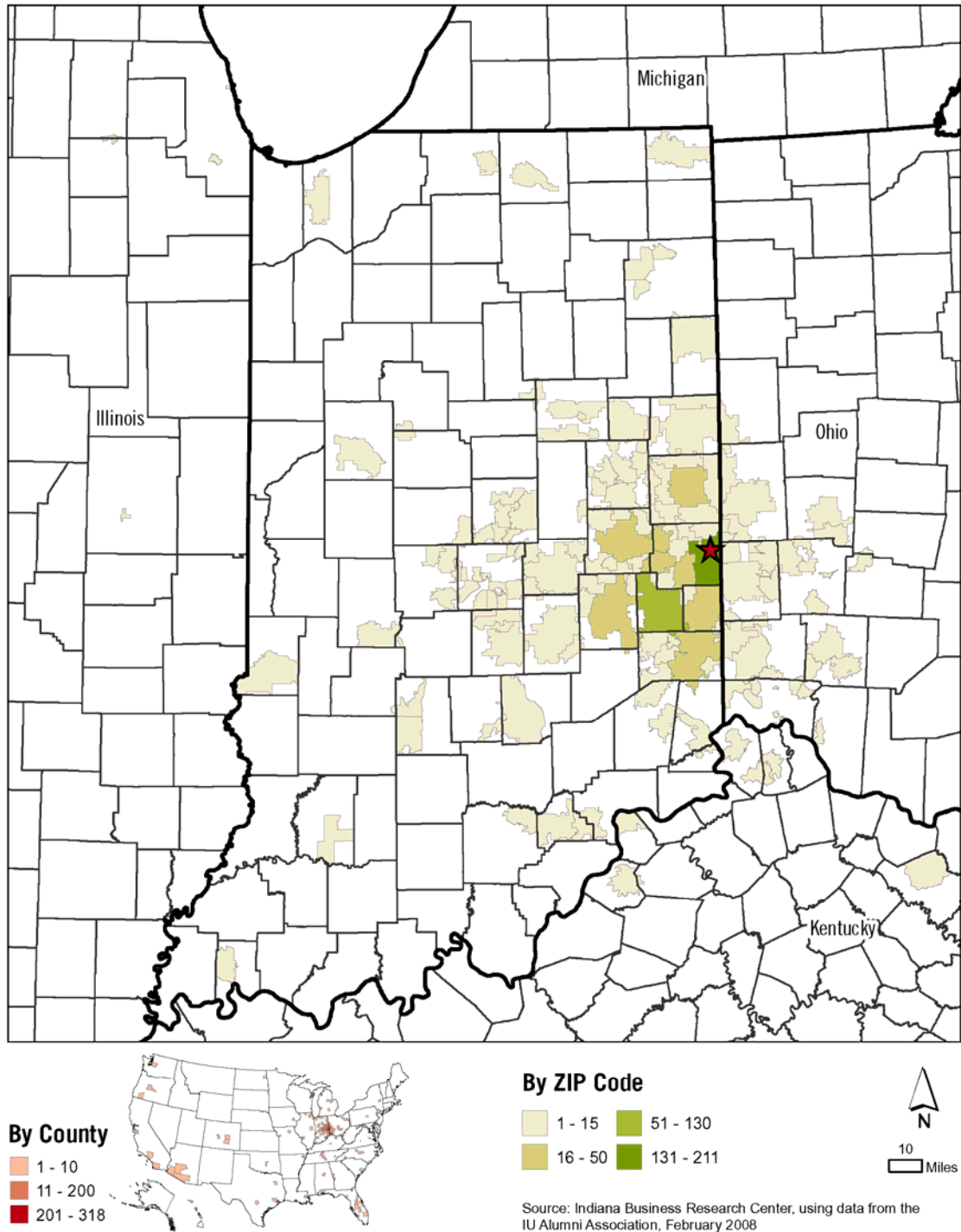
Residence	Percent
Indiana	79.6
Ohio	8.7
Florida	1.7
Illinois	0.7
Kentucky	0.7
Arizona	0.6
California	0.5
North Carolina	0.5
Tennessee	0.5
Texas	0.3
Top Ten	93.9

Note: The international/unknown category accounts for 3.2 percent of graduates.

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

Figure 7 shows the settlement pattern for recent graduates by ZIP code for Indiana and the surrounding states. IU East graduates who earned their degrees between 1998 and 2002 have settled in 37 Indiana counties. The most common counties of residence in 2008 are within the campus region, namely Wayne (318 recent graduates), Fayette (90 recent graduates) and Henry (74 recent graduates). Overall, 66 percent of IU East's 982 degree recipients between 1998 and 2002 lived in the campus region in 2008. If the region is expanded to include the Ohio reciprocity region, the figure jumps to 72 percent.

Figure 7: Settlement Pattern of IU East Graduates, Degrees Conferred 1998-2002

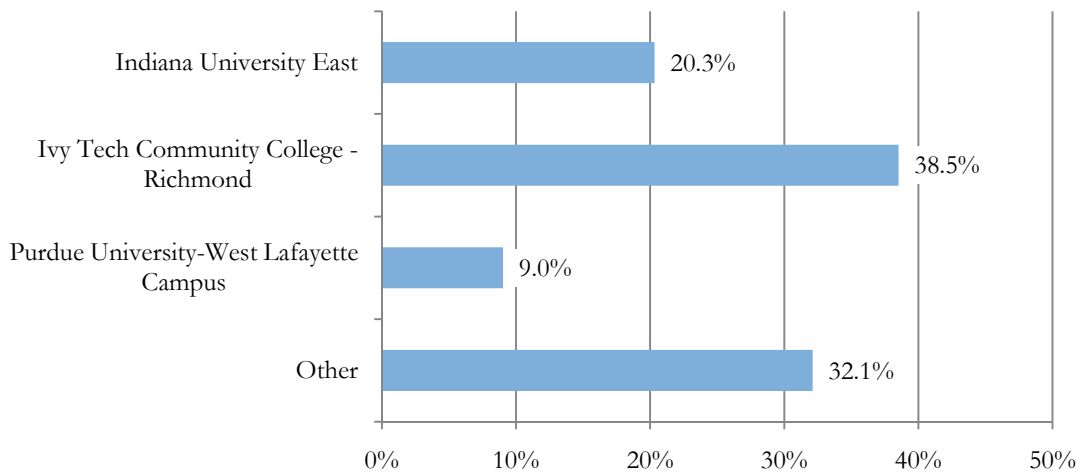


Contribution to Human Capital

Degrees Conferred

Indiana University East conferred one-fifth of all associate's degrees granted to graduates originally from eastern Indiana,² during the 2002-2007 academic years (see Figure 8). Ivy Tech Community College's Richmond campus bestowed the largest proportion of these degrees (38 percent) while public universities outside of Richmond represented another 41 percent.

Figure 8: Associate's Degrees Conferred by Indiana Public Universities for Graduates Originally from Eastern Indiana, 2002-2007

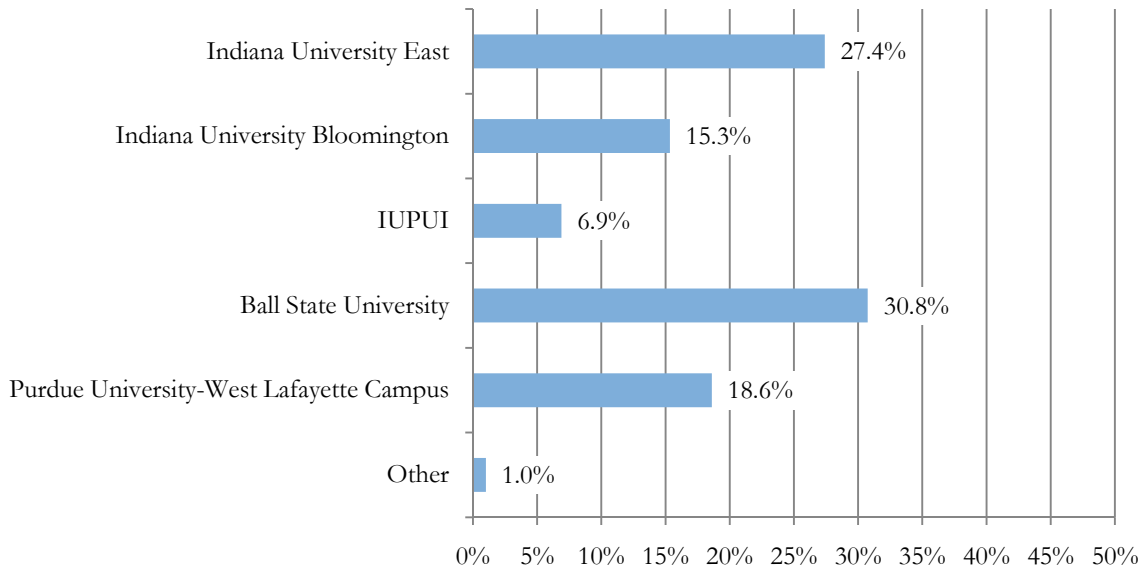


Source: IBRC, using data from the Indiana Commission for Higher Education

IU East constituted more than a quarter (27 percent) of baccalaureate degrees conferred to eastern Indiana natives in the 2002-2007 academic years—second only to Ball State University (31 percent). Together, IU Bloomington and IUPUI bestowed another 22 percent of these degrees, while Purdue University–West Lafayette represented 19 percent (see Figure 9).

²The region includes the following seven counties: Fayette, Franklin, Henry, Randolph, Rush, Union and Wayne.

Figure 9: Baccalaureate Degrees Conferred by Indiana Public Universities for Graduates Originally from Eastern Indiana, 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 four-year college 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 East 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.³

Table 4 shows that a recent female IU East baccalaureate graduate is expected to earn \$1.2 million dollars from employment over the course of her lifetime. While education graduates are projected to earn less than \$1 million, most graduates earn substantially more, including over \$1.3 million for the 39 annual graduates of the most popular arts and humanities field. Nursing and business graduates are also expected to earn over \$1.3 million over their lifetimes.

³ For more detail, please read the methodology section of the main report.

Table 4: Estimated Lifetime Earnings for Female Baccalaureate Degree Graduates, IU East, 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)	39	\$1,303
Education (except Administrative and Math & Science Education)	27	964
Nursing	22	1,368
Business Administration and Management	17	1,347
Social Sciences (except Economics)	10	1,182
Public and Educational Administration and Management	9	1,173
Criminal Justice/Protective Services	6	1,323
Biological, Agricultural & Food Sciences	6	1,263
Allied Health Fields (except Nursing)	3	1,370
Communications	2	1,329
Other Fields	2	1,300
Overall	141	\$1,238

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

Meanwhile, men who recently completed baccalaureate degrees are expected to earn \$1.6 million dollars in lifetime earnings from employment (see Table 5). The most popular degree field—arts and humanities—is associated with lifetime earnings of \$1.5 million, even if these graduates do not complete an additional advanced graduate degree. Earning even more are business administration and management graduates with projected lifetime earnings of over \$1.9 million.

Table 5: Estimated Lifetime Earnings for Male Baccalaureate Degree Graduates, IU East, 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)	16	\$1,553
Business Administration and Management	9	1,902
Social Sciences (except Economics)	3	1,757
Criminal Justice/Protective Services	3	1,435
Nursing	3	1,492
Education (except Administrative and Math & Science Education)	3	1,250
Computer and Information Science (not programming)	2	1,965
Biological, Agricultural & Food Sciences	1	1,549
Public and Educational Administration and Management	1	1,689
Drama / Fine, Visual & Performing Arts	1	1,405
Other Fields	1	1,596
Overall	42	\$1,633

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 is highlighted when one compares the difference between the estimated lifetime earnings of IU East's baccalaureate degree graduates with the earnings of associate's degree graduates nationwide (see Table 6). Over the life course, IU East's female graduates are expected to make \$255,000 (or 26 percent) more than associate's degree graduates. Male graduates are expected to make over \$355,000 (or 28 percent) more than associate's degree graduates.

Table 6: Difference in Lifetime Earnings between IU East Graduates and U.S. Associate's Degree Graduates

Category	Women (\$1000s)	Men (\$1000s)
Average Lifetime Earnings for IU East Alumni (2002-2007) with Baccalaureate Degrees	\$1,238	\$1,633
Average Lifetime Earnings for U.S. Associate's Degree Graduates	\$983	\$1,278
Additional Lifetime Earnings Attributable to Higher Degree	\$255	\$355

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 East (compared to holders of associate's degrees) leads to an estimated \$278 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 East.

Adding to Indiana's Talent Pool

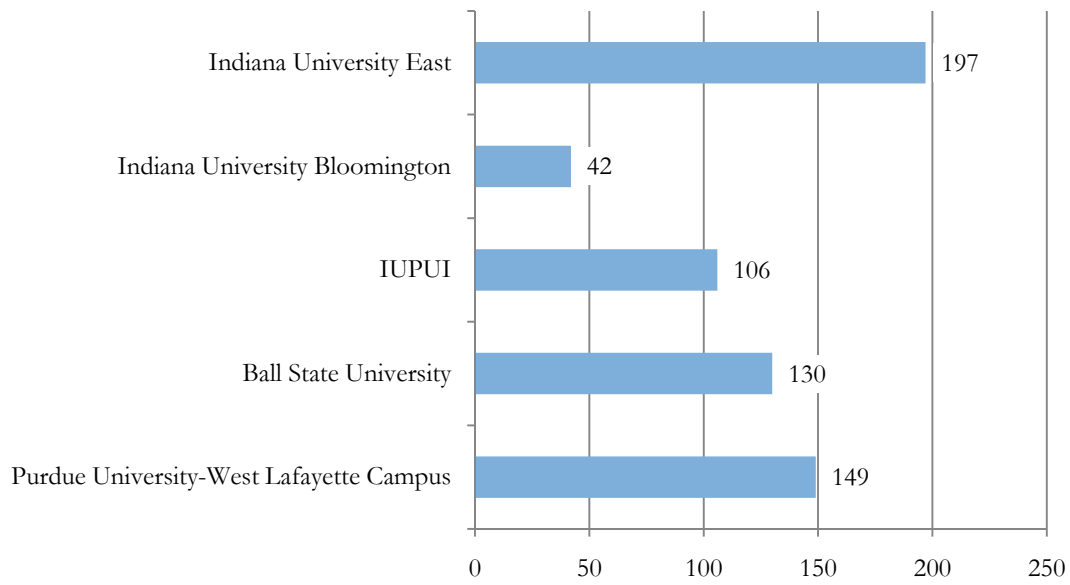
Indiana University plays a vital role to the state's economic development efforts by training future leaders and practitioners with skills that are closely aligned with major industries. This report focuses on the high-paying life sciences industry—key among Indiana's industrial initiatives—since the state is among the “nation's top four life sciences leaders” due to its high number and concentration of life sciences–related jobs.⁴

Life Sciences

IU East ranks highest among the four-year public universities attended by life sciences degree graduates originally from the campus region (see Figure 10). In the last five years, IU East accounted for 197 of these graduates, substantially more than Purdue University–West Lafayette (149) and Ball State University (130).

⁴ This information comes from the Indiana Economic Development Corporation: www.in.gov/iedc/industry.htm

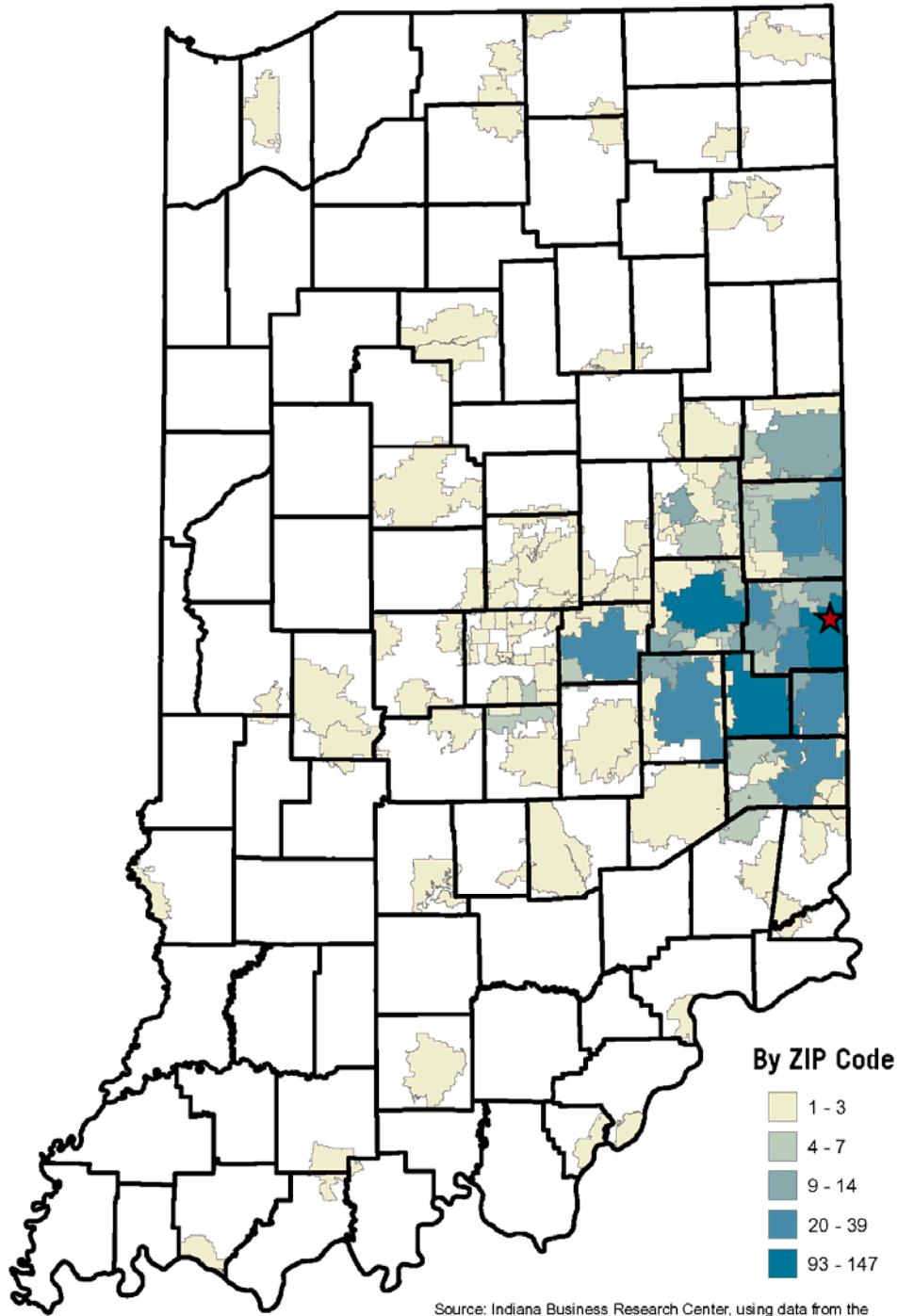
Figure 10: Life Sciences Degrees Conferred by Select Public Universities for Graduates Originally from Eastern Indiana, 2002-2007



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

Over three-quarters of IU East's life sciences graduates remain in the state. Figure 11 highlights their current locations across Indiana.

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



Civic Contribution

Service-Learning⁵

Several divisions at IU East provide service-learning courses for their students. In particular, the School of Nursing requires students to provide a wide variety of services through their practicum courses and teaching projects. Senior nursing students contribute 75 hours of service through courses S473 (community clinical service) and S481 (fundraising and administration). Junior nursing students typically enroll in H364 where they engage in group teaching projects on health issues, such as nutrition and exercise, at local schools. Other divisions' service-learning projects include "M300: Teaching in a Pluralistic Society," a course in the education division in which students perform 25 hours of service with a group that is "culturally new to them." The Humanities and Fine Arts division has a course in which philosophy and religious studies students have contributed more than 1,000 hours of service at the Baxter Neighborhood Help Center during the past two years. Finally, "T101: Mathematics for Elementary Teachers" is an example of a service-learning course offered by the Natural Sciences and Mathematics division that requires students to contribute seven hours per semester tutoring elementary school children.

Table 7 summarizes the estimated service-learning activities at IU East. All told, students provide 8,692 hours of service that have an equivalent employment cost of \$102,140. This translates to an estimated benefit of about \$74,500 for the 2006-2007 academic year.⁶

Table 7: Economic Benefit of Service-Learning, IU East, 2006-2007

Division (Volunteer Role)	Estimated Hours	Equivalent Hourly Compensation	Equivalent Annual Compensation
Nursing (administrative aide)	2,925	\$14.31	\$41,846
Nursing (clinical aide)	2,875	11.22	32,257
Education (general volunteer)	1,250	9.52	11,899
Humanities & Fine Arts (general volunteer)	500	9.52	4,760
Humanities & Fine Arts (child tutor)	360	10.43	3,755
Natural Sciences & Mathematics (child tutor)	350	10.43	3,650
Nursing (child tutor)	384	8.56	3,285
Humanities & Fine Arts (grant-writing assistant)	48	14.31	687
Total	8,692		102,140
Price-to-Client Value Ratio			73%

⁵ Information for this section was compiled by Ange Cooksey (lecturer and advisor for community service) at IU East.

⁶ This study 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.

Division (Volunteer Role)	Estimated Hours	Equivalent Hourly Compensation	Equivalent Annual Compensation
Overall Economic Benefit of Service-Learning			\$74,562

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 East, Center for Excellence in Teaching and Learning and wage data from the U.S. Bureau of Labor Statistics

Volunteering

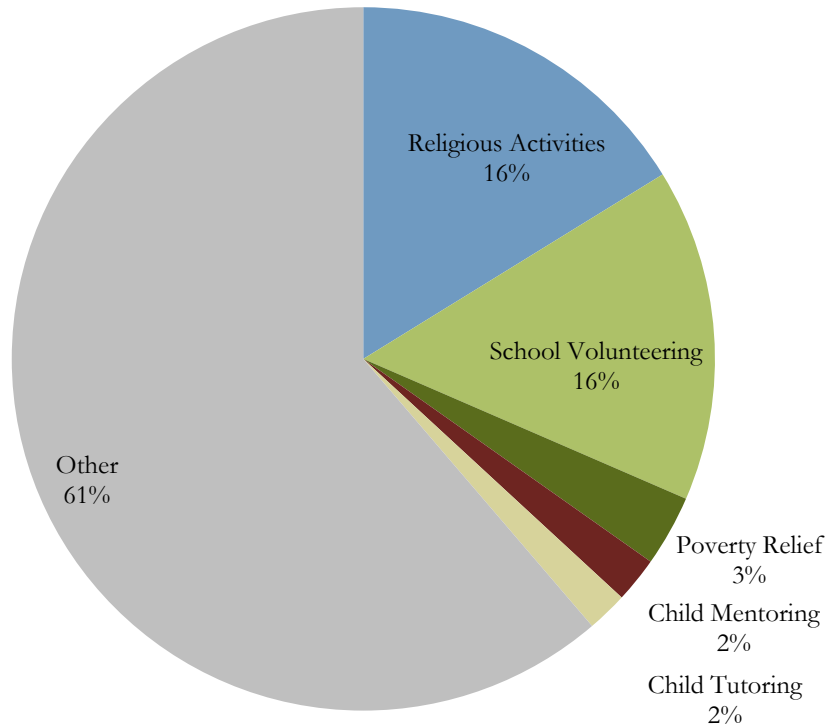
Some of the major civic engagement resources at IU East are available through the following IU-affiliated organizations:

- Center for Service-Learning
- School of Education
- School of Nursing
- Volunteer Action Center
- WCTV Television

IU East students volunteered an average of 87.2 hours during the 2006-2007 academic year according to the IU Student Survey of full-time students. The widely popular forms of service for these full-time students were religious activities and school volunteering.⁷ Although those students who participated in adult mentoring and animal care reported high numbers of service hours, the typical student was highly unlikely to engage in either of these activities. Therefore, these activities are represented within the “other” category of Figure 12.

⁷ 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 12: Volunteer Time Spent by Activity for IU East Students, 2006-2007



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

Extrapolating the student survey results to the entire full-time student body, IU East students served over 110,000 volunteer hours. This service was conducted overwhelmingly within the campus region. Table 8 summarizes the volunteer services of IU East. Conservative estimates for the regional impact of student service would count only those students who were not originally in the campus region. That is, “but for” the presence of IU East, those students would not be in the region volunteering. The conservative estimate for the impact of volunteering is \$160,000 a year for the campus region. The upper bound of economic benefit includes all students, even those who originally lived in the region and might have volunteered anyway. The upper bound is more than \$1 million dollars annually.

Table 8: Economic Benefit of Student Volunteering Activities, IU East, 2006-2007

Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
All Other Activity	67,477	90.4	\$9.52	\$580,715
Religious Activities	17,848	83.9	11.97	179,091
School Volunteering	16,854	97.0	10.43	170,447
Poverty Relief	3,603	88.0	9.22	29,219
Child Mentoring	2,298	100.0	12.63	29,022
Child Tutoring	2,050	87.0	10.43	18,588

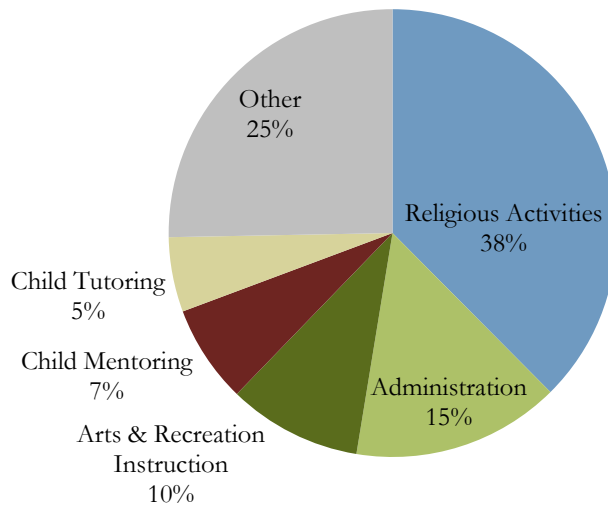
Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Total	110,129			\$1,007,082
Percent of Students Not from Campus Region				21.85%
Price-to-Client Value Ratio				73%
Overall Economic Benefit of Student Volunteering				\$160,635

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. The number of full-time students in fall of 2007 was 1,263. 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 73.8 hours over the 2006-2007 academic year. Figure 13 shows the most popular volunteer activities. While religious activities were the most popular, employees also served in administration and arts and recreation instruction capacities.

Figure 13: Volunteer Time Spent by Activity for IU East 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 East employee volunteer service totaled over 15,700 hours. These hours were overwhelmingly conducted within the campus region. Table 9 summarizes the hours and dollar value of volunteer service for IU East employees. Taking a conservative approach, IBRC analysis assumed that “but for” the presence of IU East, the full-time faculty would not live and work in the region and as a result, would not volunteer in east-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 approximately \$44,000 to the region. The upper bound of the estimate, on the other hand, includes all employees and totals \$157,000.

Table 9: Economic Benefit of Employee Volunteering Activities, IU East, 2006-2007

Volunteer Role	Total Annual Hours	Percent of Hours in Campus Region	Equivalent Hourly Compensation	Equivalent Annual Compensation
Religious Activities	5,902	85.3	\$11.97	\$60,252
Administration	2,363	100.0	14.31	33,801
All Other Activity	3,741	86.9	9.52	30,963
Child Mentoring	1,111	85.7	12.63	12,025
Arts & Recreation Instruction	1,517	76.5	9.74	11,298
Child Tutoring	849	80.0	10.43	7,081
Poverty Relief	233	95.0	9.22	2,037
Total	15,716			\$157,457
Percent of Employees Who Are Faculty				38.03%
Price-to-Client Value Ratio				73%
Overall Economic Benefit of Employee Volunteering				\$43,711

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. The number of full-time faculty and staff in the fall of 2007 was 213. 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

IU East also “gives back” to the region through student and employee donations to charities. Table 10 shows that full-time IU East students donated an average of \$81.13 per person, according to the IU Student Survey. Again, full-time students provide a more conservative estimate as part-time students are likely working full time and have more disposable income. Extrapolating the survey average to the entire full-time student body, students at IU East gave more than \$100,000. Sixty-three percent of charitable donations were received by organizations operating in the campus region.

Table 10: Economic Benefit of Student Charitable Contributions, IU East, 2006-2007

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	63.3%	\$51
Other Parts of Indiana	19.2%	\$16

Region of Charitable Giving	Percentage of Total	Contribution per Person
Outside of Indiana	17.5%	\$14
Total Contribution per Person		\$81
Total Contribution of All Students		\$102,462
Contribution within Campus Region		\$64,869

Note: Table reports full-time students. The number of full-time students in the fall of 2007 was 1,263.
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 \$699 during the 2006-2007 academic year. Multiplying this average by the number of full-time faculty and staff, IU East employees gave nearly \$149,000. Table 11 shows that almost three-quarters of these funds were donated to charities operating in the region.

Table 11: Economic Benefit of Employee Charitable Contributions, IU East, 2006-2007

Region of Charitable Giving	Percentage of Total	Contribution per Person
Inside Campus Region	73.9%	\$516
Other Parts of Indiana	8.7%	\$61
Outside of Indiana	17.4%	\$122
Total Contribution per Person		\$699
Total Contribution of All Employees		\$148,839
Contribution within Campus Region		\$109,992

Note: Table reports full-time employees. The number of full-time students in the fall of 2007 was 213.
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 East campus.

Arts and Culture

The Vivian Auditorium and Community Room at IU East’s Whitewater Hall is a key resource for a wide variety of entertainment in the Greater Richmond area. Table 12 summarizes four categories of arts and culture resources offered by IU East.

Table 12: Arts and Culture Resources Available at IU East

Resource	Music & Performing Arts	Fine & Visual Arts	Film	Popular Media
Department of Fine Arts		x		
Lively Arts Series	x			

Resource	Music & Performing Arts	Fine & Visual Arts	Film	Popular Media
WCTV				x
Whitewater Hall and Vivian Auditorium	x	x	x	

Source: IBRC, using information compiled from IU Campus Events listings at: www.indiana.edu/arts/

Library Services

Besides students, faculty and staff, 581 members of the public used the IU East campus library during the 2006-2007 academic year. Community members borrowed 1,000 books for a benefit valued at \$7,420. 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*.⁸ 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 six types of resources available to members of the public.

Table 13: Community Resources Offered by IU East

Community Resource	Adult/ Continuing Education	K-12 Education Resources	Economic Development/ Business Leadership	Physical & Mental Health Treatment	Event Hosting/ Shopping Facilities	Recreation Facilities & Sporting Events
Bookstore					x	
Center for Entrepreneurship			x			
Center for Health Promotion				x		
Creative Writing, Math and Speech Contests		x				
Educational Awareness Project (EAP)		x				
Foreign Language Film Series					x	
Graf Recreation Center/ Fitness Center						x
Intercollegiate Athletics – <i>Red Wolves</i> (formerly						x

⁸ Indiana Business Research Center. 2007. "The Economic Impact of Libraries in Indiana." Available online at: www.ibrc.indiana.edu/studies/EconomicImpactOfLibraries_2007.pdf

Community Resource	Adult/ Continuing Education	K-12 Education Resources	Economic Development/ Business Leadership	Physical & Mental Health Treatment	Event Hosting/ Shopping Facilities	Recreation Facilities & Sporting Events
<i>Pioneers)</i>						
Life Sciences Initiative			X			
Office of Continuing Education	X					
Office of Multicultural Affairs - "Moving On" program		X				
School of Education		X				
Whitewater Hall - Vivian Auditorium & Community Room					X	

Note: This list does not include the 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 IU East 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.⁹ Users of the model's results should be aware that the figures are estimates, not a precise accounting of the effects of IU East on the regional economy.

Principal Findings

- The total economic footprint of IU East on the university campus region amounts to \$22.6 million annually.
- This economic activity generates approximately \$653,000 in state and local taxes.

⁹ For a discussion on the conceptual difference between economic impact and economic footprint, please see the methodology section of the full IU impact report.

- IU East faculty and staff spending, together with university direct purchases and construction projects, result in ripple effects of approximately \$3.2 million in additional economic activity and account 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. 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 East, 2006-2007

Economic Output Effects of University	Direct Effects (in millions)	Ripple Effects (in millions)	Total Footprint (in millions)
Faculty and Staff Compensation	\$12.9	\$2.2	\$15.1
University Purchases of Goods and Services	6.1	0.9	7.0
University Construction	0.3	0.1	0.4
Visitor Expenditures Attributed to IU Events	0.1	0.0	0.1
TOTAL Effect on Economic Output	\$19.4	\$3.2	\$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 East. In addition to the 228 persons employed by IU East,¹⁰ the spending by university faculty, staff and students, together with university purchasing, accounts for another 114 jobs in the region. The reader should be aware that the types of jobs, and their associated wages and salaries, do not have all the same ripple effects. While the model estimates that IU East 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 East, 2006-2007

Employment Effects of University	Direct Effects	Ripple Effects	Total Footprint
Faculty and Staff	60	20	80
University Purchases of Goods and Services	20	10	30
University Construction	2	0	2
Visitor Expenditures Attributed to IU Events	2	0	2
TOTAL Effect on Employment	84	30	114

Source: IBRC, using IMPLAN model results

¹⁰Based on IBRC's full-time equivalent calculations using payroll data received from the Office of Planning, Institutional Research and Accountability.

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?¹¹ 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 East 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.

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 the injections, one must also subtract the leakages to be analytically consistent. Most university impact reports do not subtract leakages.

¹¹ John A. Siegfried, Allen R. Sanderson, Peter McHenry. “The economic impact of colleges and universities,” *Economics of Education Review* 26 (2007): 546–558.

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 travelers from out of the campus region and IU student travel to destinations outside the region. According to the survey results, IU East students travel out of the campus region longer and spend more in the process than those who come to the area to visit IU students. In other words, this is not an advantageous calculation.

On the other hand, visitors from out of the region who attend IU sporting events, 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 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.

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 East campus region for the analysis is comprised of Fayette, Franklin, Henry, Randolph, Rush, Union and Wayne counties. While the Ohio counties of Butler, Darke, Mercer, Preble, Shelby and Van Wert have a reciprocity relationship with IU East, only Indiana counties comprised the

region that was modeled. Thus, the economic effects were measured for the campus region within Indiana, in contrast to measuring the economic benefits of IU East on Wayne 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.¹² The research teams assumed, because of IU East’s mission and student composition—nearly half 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 IU East didn’t exist, most of the individuals who comprise the student body would still be living there.

The IBRC researchers assumed that IU East students would not leave the campus region and their spending would remain in the area even if IU East 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 IU East. On the other hand, “but for” the existence of IU East, an argument can be made that these students would not have an opportunity to earn a four-year degree. As a result, IU East is credited with augmenting the region’s stock of human capital and increasing the lifetime earnings of IU East alumni. (Please see the section on lifetime earnings for the dollar value of this benefit. See also the full report for a more complete discussion of assumptions and methodology.) Another way to look at it, “but for” IU East’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 due to non-university related student spending.

The sum of all the direct effects will not add up to the IU East 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 are a reduction in revenues, even though they are treated as an expense 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.

¹² *Ibid.*

Conclusion

IU East makes a vital contribution to east-central Indiana. This study presents a comprehensive, innovative and conservative assessment of the economic impact that IU East has on its region. IBRC researchers used many of the standard tools and methods to measure IU East's impact. The economic effects are clear. Through the spending of 228 full-time employees and purchases of goods and services, IU East creates economic ripples through the region. This analysis estimated that the direct and ripple effects of university expenditures accounts for \$22.6 million of the economic activity in east-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 East'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 \$278,900, 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 East as reported in this study is but one dimension of IU East'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.