



The Economic Value of Indiana
University-Purdue University Indianapolis

EXECUTIVE SUMMARY



IUPUI SERVICE AREA

For the purposes of this analysis, the IUPUI service area is comprised of Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Marion, Morgan, and Shelby Counties.

INDIANA University-Purdue University Indianapolis (IUPUI) and the daily lives of Hoosiers are inextricably intertwined. Through economic engagement activities, IUPUI connects its intellectual and creative resources with strategic opportunities that not only align educational programs with the workforce needs of the region, but the university also provides a foundation to foster continued economic growth.

Recognizing that active engagement in the economic well-being of the region is a primary obligation for IUPUI. Through the vast scope of its activities, the university benefits the area by educating citizens, enriching arts and culture, enhancing policymaking, developing sustainable infrastructure, and promoting economic growth. In terms of direct contributions to this economic growth, the university purchases a considerable amount of goods and services from local businesses across the region while also employing residents, each of whom contributes directly to local tax bases.

Additionally, IUPUI supports creation of new jobs in vital growth sectors and prepares a workforce ready to fill them. Research indicates that a well-educated workforce corresponds with improved health, lower rates of mortality, and lower overall rates of crime and poverty. A degree from IUPUI provides citizens with the capacity to increase lifetime earning potential and to achieve upward social mobility. IUPUI alumni contribute greatly to the region in serving their local communities as business owners and employers, entrepreneurs, researchers, teachers, policymakers, and more.

IUPUI benefits the area by educating citizens, enriching arts and culture, enhancing policymaking, developing sustainable infrastructure, and promoting economic growth.

IUPUI also coordinates service, engagement, and recruitment activities through its schools and clinics. For example, the Indiana University School of Dentistry serves thousands of patients and children through its School Fluoride Education Program and Veterans Employability Program. The Indiana University School of Nursing activities include fighting opioid epidemic with policy analysis, education and training, community engagement and workforce development within IU Grand Challenges. In addition, IUPUI has centers for impact and engagement, including the Polis Center, Public Policy Institute, Richard G. Lugar Center for Renewable Energy, and the Indiana Research Center.

This study measures the economic impacts created by IUPUI on the business community and the benefits the university generates in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The following two analyses are presented:



Economic impact analysis



Investment analysis

All results reflect employee, student, and financial data, provided by university administration and the university, for fiscal year (FY) 2018-19 (July 1, 2018 – June 30, 2019). Impacts on the IUPUI service area economy are reported under the economic impact analysis and are measured in terms of added income. The returns on investment to students, taxpayers, and society in Indiana are reported under the investment analysis. It should be noted that IUPUI data and results do not include Indiana University–Purdue University Columbus (IUPUC) or Indiana University Fort Wayne (IUFW), nor do they include Indiana University School of Medicine.¹ IUPUC and IUFW individual results are included in this report since the centers are administrated through IUPUI. However, the impacts of IUPUC and IUFW are measured on their own service regions.

KEY TAKEAWAYS

- IUPUI created **\$2.3 billion** for the region in FY 2018-19.
- **One out of every 42 jobs** in the region is supported by the activities of IUPUI and its students.
- For every dollar students invest in their education at IUPUI, they will receive **\$4.40** in higher future earnings.
- For every tax dollar spent educating IUPUI students, taxpayers will receive an average of **\$3.60** in return over the course of the students' working lives.

¹ Indiana University School of Medicine is not included as part of IUPUI, but rather as an IU statewide entity with medical centers across the state.



IUPUC SERVICE AREA

For the purposes of this analysis, the IUPUC service area is comprised of Bartholomew, Decatur, Jackson, Jennings, and Ripley Counties.



IUFW SERVICE AREA

For the purposes of this analysis, the IUFW service area is comprised of Adams, Allen, De Kalb, Huntington, La Grange, Noble, Steuben, Wells, and Whitley Counties.



Economic impact analysis



IMPACTS CREATED BY
IUPUI IN FY 2018-19



\$408.7 million
Operations Spending Impact



\$17.3 million
Construction Spending Impact



\$2.9 million
Visitor Spending Impact



\$73.4 million
Student Spending Impact



\$1.8 billion
Alumni Impact



\$2.3 billion
TOTAL IMPACT

- OR -

30,551
JOBS SUPPORTED

On an annual basis, IUPUI generates a flow of spending that has a major impact on the regional economy. The impacts are captured by the university's operations, construction, visitor, and student spending activities. As impressive as these numbers are, they are further enhanced by IUPUI's core mission of producing knowledgeable, creative, and entrepreneurial graduates—with the most contemporary skills—who keep IUPUI service area's talent pipeline full. Therefore, the greatest economic impact of IUPUI stems from the added human capital—the knowledge, creativity, imagination, and entrepreneurship—found in its alumni.

While attending IUPUI, students gain experience, education, and the knowledge, skills, and abilities that increase their productivity and allow them to command a higher wage once they enter the workforce. The employers of IUPUI alumni enjoy the fruits of this increased productivity in the form of additional non-labor income (i.e., higher profits). IUPUI's alumni along with its spending impacts **added \$2.3 billion in income to the regional economy in FY 2018-19.**

Operations spending impact



IUPUI adds economic value to the region as an employer of regional residents and a large-scale buyer of goods and services. In FY 2018-19, the university employed 8,994 full-time and part-time faculty and staff, 87% of whom lived in the IUPUI service area. Total payroll at IUPUI was \$362.2 million, much of which was spent in the region for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the

university spent \$206.4 million on day-to-day expenses related to facilities, supplies, and professional services.

IUPUI's day-to-day operations spending added **\$408.7 million** in income to the region during the analysis year. This figure represents the university's payroll, the multiplier effects generated by the in-region spending of the university and its employees, and a downward adjustment to account for funding that the university received from regional sources. The \$408.7 million in added income is equivalent to supporting **9,096 jobs** in the region.

IUPUC added \$8.9 million in income to the IUPUC service area from the center's day-to-day operations. This is equivalent to supporting 237 jobs in the region. IUFW generated \$2.7 million in added income to the IUFW service area from the center's operations, equivalent to supporting 56 jobs in the region.

Construction spending impact



IUPUI invests in construction each year to renovate, construct, and repair and replace equipment, flooring, roofing, masonry, water pumps, HVACs, and more. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the regional economy. In FY 2018-19, IUPUI's construction spending generated **\$17.3 million** in added income, which is equivalent to supporting **234 jobs**.

IUPUC generated \$352.8 thousand in added income to the IUPUC service area from its spending on construction activities. This is equivalent to supporting seven jobs in the region. Impact from IUFW construction spending was not measured in this study.

Visitor spending impact



More than 100,000 visitors from outside the region were attracted to IUPUI during the analysis year to attend commencement, sports events, and other activities sponsored by the university. While in the region, visitors spent money for food, transportation, and other personal expenses. The off-campus expenditures of the university's out-of-region visitors generated a net impact of \$2.9 million in added income for the regional economy in FY 2018-19. This **\$2.9 million** in added income is equivalent to supporting **73 jobs**.

IUPUC added \$11.9 thousand in income to the IUPUC service area from the spending of its out-of-region visitors, equivalent to supporting less than one job. IUFW's out-of-region visitors added \$61.5 thousand in income to the IUFW service area, equivalent to supporting two jobs.



Student spending impact



Around 38% of students attending IUPUI originated from outside the region in FY 2018-19, and some of these students relocated to the area to attend IUPUI. These students may not have come to the region if the university did not exist. In addition, some in-region students, referred to as retained students, would have left the area if not for the existence of IUPUI. While attending the university, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated **\$73.4 million** in added income for the regional economy in FY 2018-19, which supported **1,711 jobs** in the IUPUI service area.

IUPUC's students generated \$898.9 thousand in added income to the IUPUC service area. This is equivalent to supporting 24 jobs in the region. IUPUI's students generated \$661.4 thousand in added income to the IUPUI service area, equivalent to supporting 17 jobs in the region.

Alumni impact



The education and training IUPUI provides for regional residents has the greatest impact. Since its establishment, students have studied at IUPUI and entered the regional workforce with greater knowledge and new skills. In addition to technical skills, students are leaving IUPUI with contemporary skills, such as creativity and leadership, that are in extremely high demand by the region's leading employers. Today, thousands of former IUPUI students are employed in the region. As a result of their IUPUI education, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, IUPUI alumni generated **\$1.8 billion** in added income for the regional economy, which is equivalent to supporting **19,437 jobs**.

The alumni from IUPUC added \$46.3 million in income to the IUPUC service area. This is equivalent to supporting 658 jobs. The alumni from IUPUI generated \$132.7 million to the IUPUI service area. This is equivalent to supporting 1,845 jobs in the region.

Total impact

IUPUI added **\$2.3 billion** in income to the regional economy during the analysis year, equal to the sum of the operations and construction spending impacts, the visitor and student spending impacts, and the alumni impact. For context, the \$2.3 billion impact was equal to approximately **1.8%** of the total gross regional product (GRP) of the IUPUI service area. This contribution that the university provided on its own is larger than the entire Utilities industry in the region.

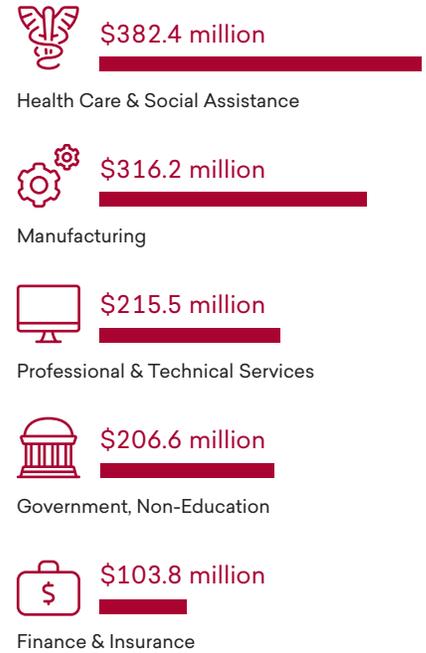
IUPUI's total impact can also be expressed in terms of jobs supported. The \$2.3 billion impact supported **30,551 regional jobs**, using the jobs-to-sales ratios specific to each industry in the region. This means that **one out of every 42 jobs** in the IUPUI service area is supported by the activities of the university and its students. In addition, the \$2.3 billion, or 30,551 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, IUPUI's spending and alumni in the Health Care & Social Assistance industry sector added \$382.4 million in income to the region in FY 2018-19. These are impacts that would not have been generated without the university's presence.

In FY 2018-19, IUPUC generated \$56.4 million in added income for the IUPUC service area. This is approximately 0.5% of the total GRP of the IUPUC service region. The impact of \$56.4 million is equivalent to supporting 926 jobs.

Within the IUFW service area, IUFW added \$136.1 million in income to the IUFW Service Region. This is approximately equal to 0.4% of the GRP. The impact of \$136.1 million is equivalent to supporting 1,921 jobs in the region. Note that the impacts of the centers and IUPUI are not comparable because each impacts a different region.



IUPUI IMPACTS BY INDUSTRY



One out of every 42 jobs in the IUPUI service area is supported by the activities of IUPUI and its students.



Investment analysis

An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. If the benefits outweigh the costs, then the investment is financially worthwhile. The analysis presented here considers IUPUI as an investment from the perspectives of students, taxpayers, and society in Indiana.

Student perspective



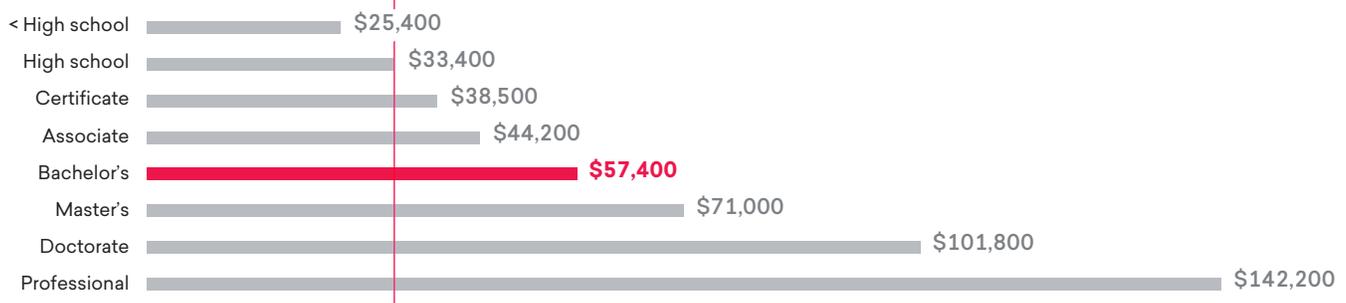
In FY 2018-19, IUPUI served a total annual unduplicated headcount of 30,371 students.² By attending IUPUI, students receive higher future earnings throughout their working lives; however, college is also an investment for students. In order to attend the university, the students paid for tuition, fees, books, and supplies. They also took out loans and will incur associated interest charges. Additionally, students forewent income they would have otherwise earned had they been working instead of attending college. The total investment made by IUPUI's students in FY 2018-19 amounted to a present value of \$532.6 million.

In return for their investment, IUPUI's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average IUPUI bachelor's degree graduate from FY 2018-19 will see annual earnings that are \$24,000 higher than a person with a high school diploma or equivalent working in Indiana. Over a working lifetime, the benefits



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The average bachelor's degree graduate from IUPUI will see an increase in earnings of **\$24,000** each year in comparison with a person with a high school diploma or equivalent working in Indiana.



Source: Emsi employment data.

² The study used an unduplicated count of students enrolled between 7/1/18 and 6/30/19, which included students enrolled in the Summer II 2018, Fall 2018, Spring 2019, and Summer I 2019 semesters. The method is more meaningful for studying economic impact, but it differs from IUPUI's standard enrollment reporting, which uses beginning-of-term numbers on a semester-by-semester basis. Both perspectives accurately draw from the same underlying data.

of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$1 million in higher earnings per graduate. The present value of the cumulative higher future earnings that IUPUI's FY 2018-19 students will receive over their working careers is \$2.3 billion.

The students' benefit-cost ratio is **4.4**. In other words, for every dollar students invest in IUPUI, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.40 in higher future earnings.

For every \$10,000 students invest in their education at IUPUI, they will receive \$44,000 in return in the form of higher future earnings. Annually, the students' investment in IUPUI has an average annual internal rate of return of **18.1%**, which far surpasses the U.S. stock market's 30-year average rate of return of 9.9%.

IUPUC's students will see a return of \$5.10 for every dollar invested in their education at the center. This is an annual rate of return of 20.0%. IUPUI's students will receive \$5.80 for every dollar invested in their education at the center, or an annual rate of return of 21.6%.

This analysis is conservative because it does not take into account the improved well-being of IUPUI students. Many years of research have demonstrated that a college education leads to happier and healthier lives. Educated members of society typically use the knowledge and skills they acquire over their years of learning to pursue their life goals and dreams, while also improving their lifestyles and overall well-being. They are generally more financially stable than those who do not engage in higher education, and they are inspired to work to improve their mental, physical and emotional health.

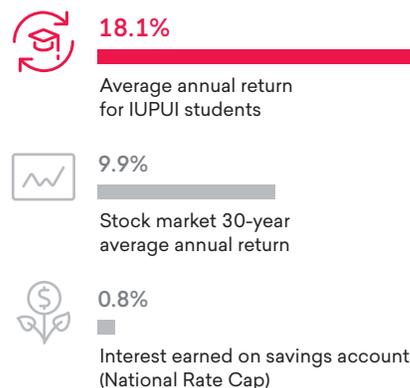
Taxpayer perspective



IUPUI generates more in tax revenue than it receives. Benefits to taxpayers will also consist of savings generated by the improved lifestyles of IUPUI students and the corresponding reduced government services. As IUPUI students will earn more, they will make higher tax payments throughout their working lives. Students' employers will also make higher tax payments as they increase their output and purchases of goods and services. By the end of the FY 2018-19 students' working lives, the state government will have collected a present value of \$419 million in added taxes.

Taxpayers will also experience savings generated by the improved lifestyles of IUPUI students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' IUPUI education will generate savings in three main areas—health care, crime, and income assistance—of tax savings. Improved health will lower students' demand for national health care services. In addition, students will be less likely to interact with the criminal justice system, resulting in a reduced demand for law enforcement and victim costs. IUPUI students will be more employable, decreasing their

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN IUPUI



Source: Forbes' S&P 500, 1989-2018. FDIC.gov, 6-2019.

*For every dollar of public money invested in IUPUI, taxpayers will receive a cumulative value of **\$3.60** over the course of the students' working lives.*

need for income assistance such as welfare and unemployment benefits. For a list of study references, contact the university for a copy of the main report. Altogether, the present value of the benefits associated with an IUPUI education will generate \$89.8 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$508.9 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$140.7 million, equal to the amount of state government funding IUPUI received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of **3.6**. This means that for every dollar of public money invested in IUPUI in FY 2018-19, taxpayers will receive a cumulative value of \$3.60 over the course of the students' working lives. To state this another way, **for every \$10,000 invested by taxpayers, they will receive \$36,000 in return**. The average annual internal rate of return for taxpayers is **10.5%**, which compares favorably to other long-term investments in the public and private sectors.

By investing in IUPUC, state taxpayers will receive \$1.90 for every dollar they invest in the center. This is an annual rate of return of 5.1%. In return for their investment in IUPUC, state taxpayers will receive a return of \$1.00 for every dollar invested. This is an annual rate of return of 1.6%.

Social perspective



Although the public often emphasizes the benefits of a college degree to themselves, the benefits to society are equally important.

Through their volunteer work, leadership and philanthropic contributions, IUPUI students enrich the civic and economic life of their communities. They contribute more in taxes and they are also less reliant on government programs and services than those without college degrees. They are also more actively involved in vital societal activities, such as voting. In addition, IUPUI provides vital services to communities that are often overlooked, such as sports, culture, arts, and music. Many of these benefits are difficult to quantify; however, this study is able to capture the increased economic base to the state from the growth in gross state product stemming from IUPUI's impact on the state and the higher future earnings. In addition, the personal and governmental benefits from the improved lifestyles of IUPUI students is captured.

As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are also distinct from the costs circumvented by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Savings related to crime include reduced security costs and insurance administration, lower victim costs, and reduced expenditures by the criminal justice system. Income assistance savings include reduced welfare and



STUDENT PERSPECTIVE

\$2.3 billion
Present value benefits

\$532.6 million
Present value costs

\$1.8 billion
Net present value

Benefit-cost ratio	Rate of return
4.4	18.1%



TAXPAYER PERSPECTIVE

\$508.9 million
Present value benefits

\$140.7 million
Present value costs

\$368.2 million
Net present value

Benefit-cost ratio	Rate of return
3.6	10.5%



SOCIAL PERSPECTIVE

\$6.8 billion
Present value benefits

\$941.1 million
Present value costs

\$5.9 billion
Net present value

Benefit-cost ratio	Rate of return
7.3	n/a*

* The rate of return is not reported for the social perspective because the beneficiaries of the investment are not necessarily the same as the original investors.

unemployment claims. For a list of study references, contact the university for a copy of the main report.

Altogether, the social benefits of IUPUI equal a present value of \$6.8 billion. These benefits include \$6.4 billion in added income through students' increased lifetime earnings and increased business output, as well as \$421.9 million in social savings related to health, crime, and income assistance in Indiana. People in Indiana invested a present value total of \$941.1 million in IUPUI in FY 2018-19. The cost includes all the university and student costs.

The benefit-cost ratio for society is **7.3**, equal to the \$6.8 billion in benefits divided by the \$941.1 million in costs. In other words, for every dollar invested in IUPUI, people in Indiana will receive a cumulative value of \$7.30 in benefits. One can also say that **for every \$10,000 society invests in IUPUI, Indiana will see \$73,000 in benefits** over the students working lives. The benefits of this investment will occur for as long as IUPUI's FY 2018-19 students remain employed in the state workforce.

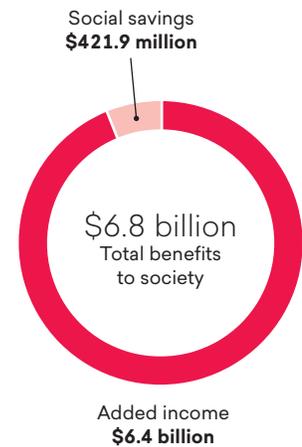
The people in Indiana will see a return of \$13.00 for every dollar invested in IUPUC. They will see a return of \$10.40 for every dollar invested in IUFW.

Summary of investment analysis results

The results of the analysis demonstrate that IUPUI is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, students receive a great return for their investments in an IUPUI education. At the same time, taxpayers' investment in IUPUI returns more to government budgets than it costs and creates a wide range of social benefits throughout Indiana.

In addition, the stakeholders will all also see a positive return on their investment from investing in IUPUC and IUFW.

SOCIAL BENEFITS IN INDIANA FROM IUPUI



Conclusion



This study demonstrates that IUPUI increases the economic activity in the region, the earnings of its students, and the tax revenues received by the state. The university fills the area's talent pipeline with knowledgeable, skilled, and innovative employees, who then generate substantial tax revenue for the state. IUPUI's alumni not only give back to their region and state through the economic contributions they make, but also through the impact they have on strengthening society. The regional campus enriches the lives of students, drives the success of regional businesses, supports the state and local taxpayers, and advances society as a whole in Indiana by creating a more prosperous economy and generating a variety of savings.

In FY 2018-19, IUPUI added **\$2.3 billion** in income to the region. This income would not have existed in the region without IUPUI. This is an annual impact and will continue year after year as IUPUI continues to serve students. The \$364.1 million impact was equal to approximately **1.8%** of the total gross regional product (GRP) of the IUPUI service area. The contribution that the university provided on its own is larger than the entire Utilities industry in the region. The impact is equivalent to supporting **30,551 jobs**. In other words, **one out of every 42 jobs** in the region is supported by IUPUI and its students. For every dollar students and taxpayers invested in the university, students will receive **\$4.40** in the form of higher future earnings and taxpayers will receive **\$3.60** in the form of added tax revenues and government savings. By almost any measure and across every economic sector, IUPUI delivers a substantial positive impact on the region and a strong return on investment for its students, taxpayers, and Indiana as a whole.

*IUPUI created **\$2.3 billion** for the region in FY 2018-19, which is equivalent to saying that **one out of every 42 jobs** in the region is supported by the activities of IUPUI and its students.*

*For every dollar students and taxpayers invested in IUPUI, they will receive **\$4.40** and **\$3.60** in benefits, respectively.*

About the study

Data and assumptions used in the study are based on several sources, including the FY 2018-19 IUPUI academic and financial reports from Indiana University Financial Management Systems (FMS) and Indiana University Institutional Research and Reporting (UIRR); industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi's Multi-Regional Social Accounting Matrix model and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness. For a full description of the data and approach used in the study, please contact the university for a copy of the main report.



Emsi is a labor market analytics firm that integrates data from a wide variety of sources to serve professionals in higher education, economic development, workforce development, talent acquisition, and site selection. Emsi is a leading provider of economic impact studies and labor market data to educational institutions in the U.S. and internationally. Since 2000, Emsi has completed over 2,000 economic impact studies for institutions across three countries. Emsi is well known for its conservative methodology. Emsi's methodology for this study adheres to the Association of American Universities (AAU) and the Association of Public and Land-grant Universities (APLU) guidelines, published in December 2014. For more information about Emsi's products and services, visit www.economicmodeling.com.