



INDIANA UNIVERSITY
BLOOMINGTON

The Economic Value of Indiana University Bloomington

EXECUTIVE SUMMARY

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

Recognizing that active engagement in the economic well-being of the state is a primary obligation for IU Bloomington. Through the vast scope of its activities, the university benefits the state 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 state while also employing residents, each of whom contributes directly to local tax bases.

Additionally, IU Bloomington 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 IU Bloomington provides citizens with the capacity to increase lifetime earning potential and to achieve upward social mobility. IU Bloomington alumni contribute greatly to the state in serving their local communities as business owners and employers, entrepreneurs, researchers, teachers, policymakers, and more.

This study measures the economic impacts created by IU Bloomington 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:

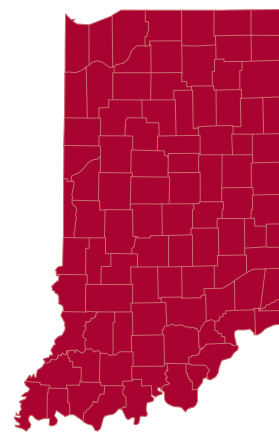


Economic impact analysis



Investment analysis

All results reflect employee, student, and financial data, provided by Indiana University administration and IU Bloomington, for fiscal year (FY) 2018-19 (July 1, 2018 – June 30, 2019). Impacts on the Indiana 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.



INDIANA

IU Bloomington benefits the state by educating citizens, enriching arts and culture, enhancing policymaking, developing sustainable infrastructure, and promoting economic growth.

KEY TAKEAWAYS

- IU Bloomington created **\$3.6 billion** for Indiana in FY 2018-19.
- **One out of every 66 jobs** in Indiana is supported by the activities of IU Bloomington and its students.
- For every dollar students invest in their education at IU Bloomington, they will receive **\$2.60** in higher future earnings.
- For every tax dollar spent educating IU Bloomington students, taxpayers will receive an average of **\$2.70** in return over the course of the students' working lives.



Economic impact analysis



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

While attending IU Bloomington, 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 IU Bloomington alumni enjoy the fruits of this increased productivity in the form of additional non-labor income (i.e., higher profits). IU Bloomington's alumni along with its spending impacts added **\$3.6 billion in income to the state economy in FY 2018-19**.

Operations spending impact



IU Bloomington adds economic value to Indiana as an employer of state residents and a large-scale buyer of goods and services. In FY 2018-19, the university employed 23,092 full-time and part-time faculty and staff, 99% of whom lived in Indiana. Total payroll at IU Bloomington was \$1 billion, much of which was spent in the state for groceries, mortgage

IMPACTS CREATED BY IU
BLOOMINGTON IN FY 2018-19



\$1.2 billion

Operations Spending Impact



\$45.9 million

Construction Spending Impact



\$73.6 million

Visitor Spending Impact



\$175.5 million

Student Spending Impact



\$2.1 billion

Alumni Impact



\$3.6 billion

TOTAL IMPACT

- OR -

60,269

JOBS SUPPORTED

and rent payments, dining out, and other household expenses. In addition, the university spent \$588.2 million on day-to-day expenses related to facilities, supplies, and professional services.

IU Bloomington's day-to-day operations spending added **\$1.2 billion** in income to the state during the analysis year. This figure represents the university's payroll, the multiplier effects generated by the in-state spending of the university and its employees, and a downward adjustment to account for funding that the university received from state sources. The \$1.2 billion in added income is equivalent to supporting **24,888 jobs** in the state.

Construction spending impact



IU Bloomington invests in construction each year to renovate existing buildings, construct new buildings, and repair and replacement equipment, roofing, windows, asphalt, and more. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the state economy. In FY 2018-19, IU Bloomington's construction spending generated **\$45.9 million** in added income, which is equivalent to supporting **690 jobs**.

Visitor spending impact



Hundreds of thousands of visitors from outside the state were attracted to IU Bloomington during the analysis year to attend commencement, sports events, and other activities sponsored by the university. While in the state, visitors spent money for lodging, food, transportation, and other personal expenses. The off-campus expenditures of the university's out-of-state visitors generated a net impact of **\$73.6 million** in added income for the state economy in FY 2018-19. This \$73.6 million in added income is equivalent to supporting **2,058 jobs**.

Student spending impact



Around 42% of students attending IU Bloomington originated from outside the state in FY 2018-19, and some of these students relocated to Indiana to attend IU Bloomington. These students may not have come to the state if the university did not exist. In addition, some in-state students, referred to as retained students, would have left Indiana if not for the existence of IU Bloomington. While attending the university, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated **\$175.5 million** in added income for the state economy in FY 2018-19, which supported **4,372 jobs** in Indiana.



Alumni impact



The education and training IU Bloomington provides for state residents has the greatest impact. Since its establishment, students have studied at IU Bloomington and entered the state workforce with greater knowledge and new skills. In addition to technical skills, students are leaving IU Bloomington with contemporary skills, such as creativity and leadership, that are in extremely high demand by the state's leading employers. Today, thousands of former IU Bloomington students are employed in Indiana. As a result of their IU Bloomington education, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, IU Bloomington alumni generated **\$2.1 billion** in added income for the state economy, which is equivalent to supporting **28,262 jobs**.

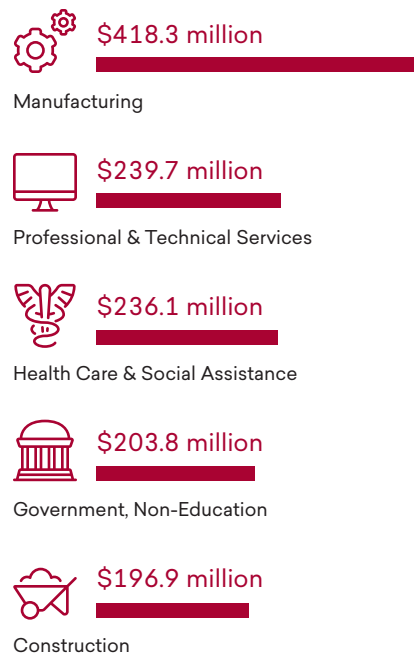
Total impact

IU Bloomington added **\$3.6 billion** in income to the Indiana 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 \$3.6 billion impact was equal to approximately **1.0%** of the total gross state product (GSP) of Indiana. This contribution that the university provided on its own is as large as the entire Arts, Entertainment, & Recreation industry in the state.

*The additional income of **\$3.6 billion** by IU Bloomington is equal to approximately **1.0%** of the total GSP of Indiana.*

IU Bloomington's total impact can also be expressed in terms of jobs supported. The \$3.6 billion impact supported **60,269 state jobs**, using the jobs-to-sales ratios specific to each industry in the state. This means that **one out of every 66 jobs** in Indiana is supported by the activities of IU Bloomington and its students. In addition, the \$3.6 billion, or 60,269 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, IU Bloomington's spending and alumni in the Manufacturing industry sector added \$418.3 million in income to the state in FY 2018-19. These are impacts that would not have been generated without the university's presence.

IU BLOOMINGTON IMPACTS BY INDUSTRY



One out of every 66 jobs in Indiana is supported by the activities of IU Bloomington 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 IU Bloomington as an investment from the perspectives of students, taxpayers, and society in Indiana.

Student perspective



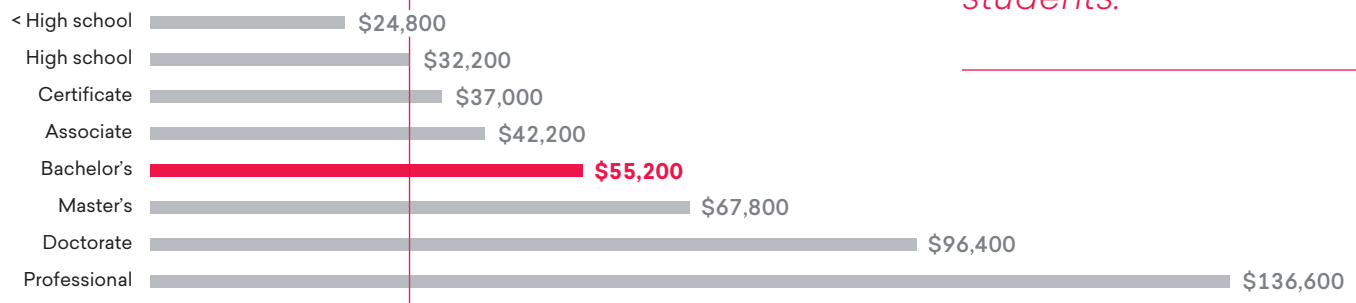
In FY 2018-19, IU Bloomington served a total annual unduplicated headcount of 55,548 students,* including 8,712 dual credit high school students. By attending IU Bloomington, students receive higher future earnings throughout their working lives; however, college is also an investment for students. In 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 IU Bloomington's students in FY 2018-19 amounted to a present value of \$1.3 billion.

In return for their investment, IU Bloomington's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average IU Bloomington bachelor's degree graduate



*In FY 2018-19, IU Bloomington served **55,548 students**, 8,712 of whom were dual credit high school students.*

The average bachelor's degree graduate from IU Bloomington will see an increase in earnings of **\$23,000** each year in comparison with a person with a high school diploma or equivalent working in Indiana.



Source: Emsi employment data.

* 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. This count also includes dual credit, high school enrollments as of the end of term, which is the most inclusive count of such students. The method is more meaningful for studying economic impact, but it differs from IU Bloomington'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.

from FY 2018-19 will see annual earnings that are \$23,000 higher than a person with a high school diploma or equivalent working in Indiana. Over a working lifetime, the benefits 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 IU Bloomington's FY 2018-19 students will receive over their working careers is \$3.3 billion.

The students' benefit-cost ratio is **2.6**. In other words, for every dollar students invest in IU Bloomington, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$2.60 in higher future earnings. **For every \$10,000 students invest in their education at IU Bloomington, they will receive \$26,000 in return** in the form of higher future earnings. Annually, the students' investment in IU Bloomington has an average annual internal rate of return of **11.2%**, which far surpasses the U.S. stock market's 30-year average rate of return of 9.9%.

This analysis is conservative because it does not take into account the improved well-being of IU Bloomington 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



IU Bloomington generates more in tax revenue than it takes. Benefits to taxpayers will also consist of savings generated by the improved lifestyles of IU Bloomington students and the corresponding reduced government services. As IU Bloomington 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 \$550.2 million in added taxes.

Taxpayers will also experience savings generated by the improved lifestyles of IU Bloomington students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' IU Bloomington 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. IU Bloomington students will

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN IU BLOOMINGTON



11.2%

Average annual return for IU Bloomington students



9.9%

Stock market 30-year average annual return



0.8%

Interest earned on savings account (National Rate Cap)

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

*For every dollar of public money invested in IU Bloomington, taxpayers will receive a cumulative value of **\$2.70** over the course of the students' working lives.*

be more employable, decreasing their 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 IU Bloomington education will generate \$124.5 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$674.7 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$248.4 million, equal to the amount of state government funding IU Bloomington received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of **2.7**. This means that for every dollar of public money invested in IU Bloomington in FY 2018-19, taxpayers will receive a cumulative value of \$2.70 over the course of the students' working lives. To state this another way, **for every \$10,000 invested by taxpayers, they will receive \$27,000 in return**. The average annual internal rate of return for taxpayers is **9.1%**, which compares favorably to other long-term investments in the public and private sectors.

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, IU Bloomington 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, IU Bloomington 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 IU Bloomington's impact on the state and the higher future earnings. In addition, the personal and governmental benefits from the improved lifestyles of IU Bloomington 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 unemployment claims. For a list of study references, contact the university for a copy of the main report.



STUDENT PERSPECTIVE

\$3.3 billion
Present value benefits

\$1.3 billion
Present value costs

\$2 billion
Net present value

Benefit-cost ratio	Rate of return
2.6	11.2%



TAXPAYER PERSPECTIVE

\$674.7 million
Present value benefits

\$248.4 million
Present value costs

\$426.3 million
Net present value

Benefit-cost ratio	Rate of return
2.7	9.1%



SOCIAL PERSPECTIVE

\$8.5 billion
Present value benefits

\$2.4 billion
Present value costs

\$6.1 billion
Net present value

Benefit-cost ratio	Rate of return
3.6	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.

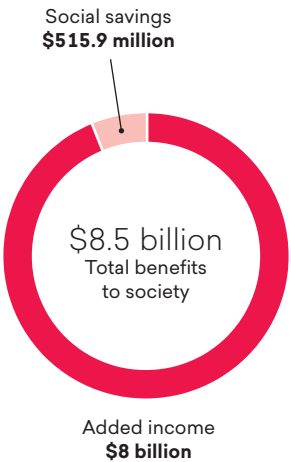
Altogether, the social benefits of IU Bloomington equal a present value of \$8.5 billion. These benefits include \$8 billion in added income through students' increased lifetime earnings and increased business output, as well as \$515.9 million in social savings related to health, crime, and income assistance in Indiana. People in Indiana invested a present value total of \$2.4 billion in IU Bloomington in FY 2018-19. The cost includes all the university and student costs.

The benefit-cost ratio for society is **3.6**, equal to the \$8.5 billion in benefits divided by the \$2.4 billion in costs. In other words, for every dollar invested in IU Bloomington, people in Indiana will receive a cumulative value of \$3.60 in benefits. One can also say that **for every \$10,000 society invests in IU Bloomington, Indiana will see \$36,000 in benefits** over the students working lives. The benefits of this investment will occur for as long as IU Bloomington's FY 2018-19 students remain employed in the state workforce.

Summary of investment analysis results

The results of the analysis demonstrate that IU Bloomington 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 IU Bloomington education. At the same time, taxpayers' investment in IU Bloomington returns more to government budgets than it costs and creates a wide range of social benefits throughout Indiana.

SOCIAL BENEFITS IN INDIANA
FROM IU BLOOMINGTON



Conclusion



This study demonstrates that IU Bloomington increases the economic activity in the state, the earnings of its students, and the tax revenues received by the state. The university fills the state's talent pipeline with knowledgeable, skilled, and innovative employees, who then generate substantial tax revenue for the state. IU Bloomington alumni not only give back to their state through the economic contributions they make, but also through the impact they have on strengthening society. The university 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, IU Bloomington added **\$3.6 billion** in income to the state. This income would not have existed in the state without IU Bloomington. This is an annual impact and will continue year after year as IU Bloomington continues to serve students. The \$3.6 billion impact was equal to approximately **1.0%** of the total gross state product (GSP) of Indiana. The contribution that the university provided on its own is as large as the entire Arts, Entertainment, & Recreation industry in the state. The impact is equivalent to supporting **60,269 jobs**. In other words, **one out of every 66 jobs** in the state is supported by IU Bloomington and its students. For every dollar students and taxpayers invested in the university, students will receive **\$2.60** in the form of higher future earnings and taxpayers will receive **\$2.70** in the form of added tax revenues and government savings. By almost any measure and across every economic sector, IU Bloomington delivers a substantial positive impact on the state and a strong return on investment for its students, taxpayers, and Indiana as a whole.

*IU Bloomington created **\$3.6 billion** for the state in FY 2018-19, which is equivalent to saying that **one out of every 66 jobs** in the state is supported by the activities of IU Bloomington and its students.*

*For every dollar students and taxpayers invested in IU Bloomington, they will receive **\$2.60** and **\$2.70** in benefits, respectively.*

About the study

Data and assumptions used in the study are based on several sources, including the FY 2018-19 IU Bloomington 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.